

**Association Internationale des Ecoles Superieures d'Education Physique  
International Association for Physical Education in Higher Education**

## **International Conference**



**Pre-Conference Events: June 16-19, 2019  
Main Conference: June 19-22, 2019**

# **BOOK OF ABSTRACTS**

# KEYNOTES

## **Examining the Intersection of Social and Emotional Learning with Physical Education and Youth Sport**

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Thursday, 20th June - 08:15: (Performing Arts Center Main Theater)

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*Paul Wright ( Department of Kinesiology and Physical Education, Northern Illinois University )*

Within physical education and youth sport communities, there is a surge of interest in social and emotional learning. While research, conceptual frameworks, and policy support related to the broad notion of social and emotional learning are compelling and have much to offer, we must remember many relevant concepts and practices have already been developed in physical education and youth sport programs. Don Hellison's Teaching Personal and Social Responsibility model is one such example. This is not so say we have nothing to learn. In fact, we have much to learn AND much to share. This keynote presentation will examine the intersection of social and emotional learning with physical education and youth sport. Opportunities and challenges will be discussed that may inform best practices for designing and delivering programs, training teachers and coaches, as well as strengthening research and policy support in this area.

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## **How do you create, engage, and amplify a health promotion program: the Hip Hop Public Health approach**

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Thursday, 20th June - 15:30 PM: (Performing Arts Center Main Theater)

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*Olajide Williams ( Columbia University, NY, USA and Hip Hop Public Health )*

This talk will present Hip Hop Public Health's evidence-driven Multisensory Multilevel Health Education Model, and it's potential role in improving physical activity behaviors of children in low income urban communities of the United States.

Learn more about Hip Hop Public Health:

<https://hhph.org/>

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## **What does HPE do for the world? Considering critical pedagogies and beyond**

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Thursday, 20th June - 08:15 AM: (Performing Arts Center Main Theater)

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*Katie Fitzpatrick ( University of Auckland, New Zealand )*

In this presentation, I will reflect on the fields of health and physical education, and consider what work in these intersecting disciplines do (or might do) for the world. I specifically discuss the potential of critical pedagogies, and argue that it is time to focus our work beyond the politics of representation and toward a physical education that is ‘for’ as well as ‘about’ various forms of justice and equity.

# **Towards a pedagogy of love: Exploring people's experiences of an activist sport pedagogical model**

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Thursday, 20th June - 08:15 AM: (Performing Arts Center Main Theater)

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*Carla Luguetti ( Victoria University, Australia )*

Several studies demonstrate the benefits of socially critical work in physical education and sport. An 'ethic of care' has been proposed as a moral basis for socio-critical work. In recent years, socially critical scholars have argued that care and love should not be colorblind or power blind and that marginalized populations necessarily understand caring within their sociocultural context; creating spaces for youth and teachers to challenge inequities. Although we have a body of research on socially critical pedagogy in physical education and sport that highlights the importance of an ethic of care, there is little research that aims to explore teachers' and youth's experiences in living this kind of pedagogy.

This presentation will draw specifically on Paulo Freire's concept of Love. For Paulo, it is a love based in dialogue, solidarity, and hope and imagination. In this presentation, we will discuss how a pedagogy of love emerged when we implemented an activist sport pedagogical model across four semesters in a socially vulnerable context with pre-service teachers and youth in Brazil. By sharing pre-service teachers voices, we will show how love it was represented by: a) creating democratic spaces for students to care from each other and their community; b) trusting and understanding the students, and dream possible futures with them; c) being the best teacher in order to accomplish students' learning; d) making sure all students are included. We suggest that teachers need to develop attitudes, knowledge, skills, and dispositions necessary to become competent in catering to linguistically, culturally, and ethnically diverse students. It requires them to examine their own values and assumptions about working with youth who are different from them, recognizing their own privileges. It is a process that requires reflexivity in order to develop awareness of micro oppression that allowed micro transformations.

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# **Symposium 1: NAKHE Sponsored Event**



## **The internationalization of physical education in higher education: Leaders' reflections on meaning, strengths, weaknesses, opportunities, and threats**

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Thursday, 20th June - 09:30: (Nexus 239) - Symposium

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*Dr. Brian Culp (Kennesaw State University), Ms. Jenna Lorusso (University of Western Ontario), Prof. Ann MacPhail (University of Limerick), Dr. James Mandigo (Brock University), Dr. Samuel Hodge (The Ohio State University)*

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As society becomes increasingly globalized in the 21<sup>st</sup> Century, internationalization has become one of the greatest priorities for institutions of higher education across the world. In the higher education context, internationalization can be understood as actions undertaken by universities and individuals to ensure a global or intercultural dimension to all aspects of scholarship, be it teaching, research, or service. The field of physical education (PE) in higher education is not immune to these internationalization pressures, whether it be the expectation to integrate international perspectives into curricula, facilitate study-abroad programs, recruit and host international students and faculty, or engage in research collaborations and partnerships with international scholars, journals, and associations. This panel/symposium will begin by drawing on the results of an ongoing survey investigation into the state and status of internationalization initiatives in PE (as well as in other kinesiology/human movement sub-disciplines). The presentation will then turn to an international panel of three PE leaders who will reflect on the strengths, weaknesses, opportunities, and threats they encounter and envision in their internationalization of university PE courses, programs, academic units, research, journals, and associations. In their reflections, the panelists will speak to the ethical considerations, sustainability, and tensions of this work.

### **Leader A**

Professor Ann MacPhail, Ph.D., works at the University of Limerick in Ireland. She is a member of the AIESEP Board of Directors, an Associate Editor for *Physical Education and Sport Pedagogy*, and a member of the Editorial Board for the *Journal of Teaching in Physical Education*. She has had the opportunity to deliver keynote lectures in Canada, Oman, Portugal, Spain, The Netherlands and Turkey and supervised PhD candidates enrolled in Irish, Finnish, Norwegian and Portuguese universities. Ann has worked on peer-reviewed publications with colleagues from Australia, Brazil, Canada, Ireland, Israel, Norway, Finland, Portugal, Spain, The Netherlands, Turkey, UK and USA.

Professor MacPhail's remarks will focus on internationalizing research, journals and associations, encouraging leadership for international institutional and organizational partnerships and collaborations. Common themes embedded across such a focus include community engagement, professional development and identifying priorities.

### **Leader B**

Dr. James Mandigo, Ph.D, is Brock University's Vice Provost for Enrolment Management and International as well as Professor in the Department of Kinesiology. James has worked extensively with colleagues in a number of different countries. His current research and development project in the Central American countries of El Salvador and Guatemala explores the role that sport and physical education have in the prevention of youth violence. He has also been a visiting scholar at the University of Tsukuba's International Academy for Sports Studies in Japan and provided a leadership role with the Scotiabank Champions for Health Promoting Schools in the Caribbean islands of St. Vincent, Antigua, and British Virgin Islands. His research and development activities in this area have been funded by the Canadian Social Science and Humanities Research Council, the International Olympic Committee,

and Scotiabank International. James received Canada's Physical and Health Education's most prestigious award, the R. Tait McKenzie Award, in 2015 and was recognized by the Government of El Salvador for his research and development work in that country in 2014.

Fostering global citizenship as a core learning outcome has become an increasingly important priority for post-secondary institutions. Helping students to develop a global lens to understanding important issues in their courses and programs not only prepares them to be successful in the 21<sup>st</sup> Century, but can also help to foster social and entrepreneurial innovation across communities. Professor Mandigo's remarks will focus on ways in which we can integrate global competencies into courses, programs and units; whether it be on one's home campus or as part of study abroad opportunities.

#### Leader C

Dr. Samuel R. Hodge, Ph.D., Professor, Kinesiology, Department of Human Sciences in the College of Education and Human Ecology (EHE), The Ohio State University. He is Editor of *Quest*, and Executive Associate Editor of *Multicultural Learning and Teaching*. For more than 20 years, Professor Hodge has actively engaged in professional development (e.g., workshops and symposia) and international presentations, as well as scholarship (books, chapters in edited books, and peer-reviewed articles) internationally, primarily in regards to individuals from historically marginalized and minoritized populations. His work expands across a host of countries and geographies including: Africa (Ghana); Brazil (Brasília, Florianópolis, Natal, São Carlos, São Paulo); Canada (Montreal); China (Hong Kong, Nanjing, Wuhane); Colombia (Medellín); Cuba (Cienfuegos, Havana); Japan (Tsukuba); the United States of America (including the U.S. Commonwealth of Puerto Rico and the cities or municipalities of Aguada, Aquadilla, Añasco, Bayamon, Cayey, Dorado, Gurabo, Juncos, Mayagüez, San German, San Juan, Utuado, and Yauco); and Venezuela (Merida).

Professor Hodge's remarks will focus on constructing and sustaining reciprocal collaborations and partnerships in terms of professional development, service, and scholarship.

# **Assessment in PE**

# Reproducibility, Validity and Feasibility of motor competence assessment instruments: a systematic review

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Thursday, 20th June - 09:30: (Nexus 237) - Oral Paper

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*Mr. Joris Hoeboer (The Hague University of Applied Sciences), Ms. Katrijn Opstoel (Utrecht University), Prof. Kristine De Martelaer (Utrecht University), Prof. Geert Savelsbergh (VU Amsterdam), Dr. Sanne De Vries (The Hague University of Applied Sciences)*

## **Introduction:**

Motor Competence (MC) is one of the key components in developing an active lifestyle. To identify children at risk and to define intervention goals, validated and reliable tools to measure MC are crucial. Therefore, the purpose of the present study is to systematically review the reliability, validity, and feasibility of MC measurement tools for children aged 2-to 18-years old.

## **Method:**

A systematic search of the literature was performed in February 2018 in four databases resulting in 4.299 hits. After screening and backwards tracking 38 studies were included. The included studies were evaluated using a 10-item checklist.

## **Results:**

There is strongest evidence for the reliability and validity of the M-ABC (n=16 studies) and the TGMD-2 (n=10). The M-ABC scores moderate to good on all items of reliability and validity. With respect to the TGMD-2 there is strong evidence for a good internal consistency, test-retest reliability, construct validity and a moderate inter-rater reliability. However, there is strong evidence for a poor concurrent validity. With respect to the AST there is modest evidence for a good internal consistency, test-retest reliability and concurrent validity. For the other eight reviewed measurement tools there is limited evidence for the clinimetric outcomes.

## **Conclusion:**

In conclusion, there is quite some evidence for a good reliability and validity of several MC measurement tools for 2- to 18-years old children. However, the level of evidence differs. It depends on the target group, the purpose and the context which MC measurement tool can best be used.

## The AIESEP Position Statement on PE Assessment

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Thursday, 20th June - 09:51: (Nexus 237) - Oral Paper

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*Dr. Lars Borghouts (Fontys School of Sports Studies), Dr. Menno Slingerland (Fontys School of Sports Studies), Ms. Gwen Weeldenburg (Fontys), Prof. Ann MacPhail (University of Limerick)*

### Background and purpose

The AIESEP Specialist Seminar ‘Future Directions in PE Assessment’ was held 18-20 October in Eindhoven, The Netherlands. The seminar brought together more than 70 experts from 20 countries to discuss PE (Physical Education) -assessment related themes, such as Accountability and Policy, Assessment for Learning, Instructional Alignment, PE Teacher Education, and International Perspectives. The seminar provided the basis for the *AIESEP Position Statement on Assessment, which will be presented*. The position statement aims to advocate for the importance of assessment for meaningful physical education provision, to advise the PE profession about assessment-related concepts informed by research and effective practice, and to identify pressing research questions in the area of PE assessment.

### Main points

The AIESEP Position Statement stresses the importance of reliable, valid, transparent and student-involving PE assessment. Depending on the cultural and regional context, learning in PE includes objectives in the psychomotor, cognitive, social and affective domains. Meaningful learning is achieved through teaching that reflects an alignment between learning objectives, assessments that provide evidence of students reaching those goals, and the instructional practices employed to facilitate students achieving success. Once it has been identified what students are to achieve (objective), it should be determined how they might demonstrate success. Assessing a variety of learning objectives in different domains, requires a variety of appropriate assessment methods. It is up to the teacher to provide fitting opportunities for students to demonstrate their success, their mastery, their competence, and their level of achievement. *AIESEP believes that assessment is central to instruction, it is not an add-on*. If the assessment is a quality and challenging measure of what students were taught and what they have been striving to master, then teachers should ‘teach to the test’.

**Adherence to conference aims and themes** This presentation addresses the theme ‘Professional Preparation for Health and Physical Education, Sport, and Physical Activity’

# **Attitudes and Motivation**

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## Associations between fitness test performance and attitudes and emotions towards physical education

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Thursday, 20th June - 09:30: (Nexus 275) - Oral Paper

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*Mr. Kelly Simonton (Louisiana State University), Dr. Kevin Mercier (Adelphi University), Dr. Alex Garn (Louisiana State University)*

**Background:** There is debate in the literature regarding fitness testing in physical education (PE) and its relationships with student outcomes. Proponents suggest fitness tests are vital in PE because they provide students with crucial knowledge and facilitate health. Critics argue that fitness tests produce negative student outcomes and are rarely implemented accurately and reliably. Regardless, there is limited evidence to show relationships between fitness test performances and future student outcomes in PE. The purpose of this study was to evaluate the extent that students' fitness test scores predicted their future attitudes, enjoyment, boredom, and anger towards PE. We also explored the potential moderating relationship sex has on fitness test performance and student attitude, enjoyment, boredom, and anger towards PE. **Methods:** Middle school students ( $N=273$ ) from the Northeastern United States participated in this study. PE consisted of traditional sport activities and pre/post fitness testing. Each student completed the PACER, curl-up, push-up, and sit-and-reach Fitnessgram™ assessments. Students completed previously validated surveys regarding their attitudes and emotions (enjoyment, boredom, and anger) towards PE. Structural equation modeling (SEM) was used to evaluate relationships between performance, attitudes, and emotions. Multi-group SEM was used to evaluate similarities and differences between girls and boys. **Results:** PACER performance predicted lower perceptions of anger whereas higher performance on curl-ups predicted higher rates of anger and lower rates of enjoyment for girls and boys. PACER scores predicted positive attitudes for boys but not girls, while sit-and-reach scores predicted positive attitudes for girls and not boys. Overall, fitness performance explained around 10% and 5% of the outcome variance for boys and girls, respectively. **Conclusions:** Overall, students' fitness test performances explained limited variance in their future attitudes and emotions in PE, suggesting minimal short-term impact. Therefore, we conclude that fitness tests provide minimal benefits to students' subjective experiences in PE, especially girls.



## **Impact of digital technologies on students' motivation in physical education within the guided discovery teaching style**

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Thursday, 20th June - 09:51: (Nexus 275) - Oral Paper

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*Prof. Cédric Roure (Université catholique de Louvain)*

**Background and purpose:** Many researchers have demonstrated the positive effects of digital technologies on students' motivation when they were supported by a pedagogical approach (Casey, Goodyear & Armour, 2017). The purpose of this study was to examine the impact of a student-centred teaching style, coupling with digital technologies, on students' contextual and situational motivation.

**Methods:** The participants were 118 secondary school students ( $M = 16.39$ ,  $SD = 0.64$ , 100% girls, 16-18 years) who were randomly allocated to two groups: (a) an experimental group in which 81 students practiced an Acrogym unit within the guided discovery teaching style (Mosston & Ashworth, 2002) and with digital technologies, and (b) a control group in which 37 students practiced the same Acrogym unit within the command teaching style and without digital technologies. Students responded to questionnaires related to their contextual motivation pre and post-implementation (achievement goal theory and expectancy-value theory), and to their situational motivation (situational interest theory) at the beginning and at the end of the Acrogym unit.

**Results:** Students in the experimental group reported stable scores for their contextual motivation between pre and post-implementation, whereas the control group showed a decline. In addition, the situational motivation of the experimental group evolved more than those of the control group, indicating a stronger interest from the students towards the Acrogym unit.

**Conclusion and implications:** In conclusion, it seems that the digital technologies within the guided discovery teaching style are interesting to develop students' motivation and engagement in physical education.

# Students' attitudes towards and experiences of health-related physical fitness tests in secondary schools in the Republic of Ireland.

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Thursday, 20th June - 10:12: (Nexus 275) - Oral Paper

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*Mr. Brendan O' Keeffe (University of Limerick), Prof. Alan E. Donnelly (University of Limerick), Dr. Ciaran MacDonncha (University of Limerick)*

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**Aim:** Despite the prominence of health-related physical fitness (HRPF) testing in secondary schools (1), little is known about how students perceive these tests (2,3). The purpose of this investigation was to examine secondary school students' attitudes towards and experiences of HRPF testing.

**Methods:** A randomised sample of 795 adolescents aged 13.2 years (SD = 0.39; 403 boys, 50.7%) from 20 schools in Ireland completed a series of field-based HRPF tests. Schools were stratified for sex, location and educational (dis)advantage. Following test administration, students completed the *Students Attitudes towards Fitness Testing Scale* (3) which has four domains; cognitive, affect-enjoyment, affect-teacher and affect-feelings. Additional study-specific items were also included.

**Results:** Overall, students had a positive attitude towards fitness testing (M= 3.9, SD .59) on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Males had significantly more positive attitudes toward fitness testing in comparison to females across all domains (Bonferroni adjusted p-value of  $p < 0.01$ , t-test), with the exception of affect-teacher. A one-way ANOVA revealed that students in single-sex boys and mixed-sex schools had significantly more positive attitudes towards fitness testing in comparison to students in single-sex girls' schools ( $F(2, 795) = 9.4$ ,  $p = 0.001$ ). The majority of students ( $n = 636$ , 81.3%) agreed or strongly agreed that they would like to track their HRPF while in secondary school. Students ( $n = 301$ , 39.6%) indicated that they would be most in favour of a peer or self-test format in comparison to an external expert (27.0%) or their teacher (20.2%) recording test scores.

**Conclusions:** The results suggest that students have a positive attitude towards fitness testing. However, girls, and girls in single-sex girls' schools in particular, have significantly less positive attitudes towards fitness testing. Further research is needed on effective methods to integrate fitness testing in these settings. Physical education teachers should adopt student-centred approaches when administering HRPF tests.

# **Game Centered Coaching**

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# Teaching basketball to sampling-year athletes: A game-centered and situated learning perspective

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Thursday, 20th June - 09:30: (Nexus 154) - Oral Paper

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*Dr. Aspasia Dania (National and Kapodistrian University of Athens), Dr. Stephen Harvey (Ohio University)*

**Background:** There is a dearth of coaching research that explores the impact of game-based approaches such as Teaching Games for Understanding (TGfU) on young athletes' in the sampling years (i.e. 5-8 years) learning how to play games. The purpose of this study was to therefore investigate how a group of young children learned basketball specific game technical skills and tactical awareness after a period of coaching with the TGfU model compared to a group who received traditional 'skills first' instruction. **Method:** Participants were 35 boys (5-8 years;  $M=6.17$ ,  $SD=1.01$ ) from a basketball club in Greece. Two coaches taught 16 basketball sessions to either a TGfU group ( $n=14$ ) or control group ( $n=21$ ). Pre-and-post measures were completed using: (a) basketball skill tests; and, (b) the game performance assessment instrument. Qualitative data in the form of a written journal based on observed sessions were also collected. Quantitative data were analyzed using a series of paired-sample T-tests (with bonferonni correction) and qualitative data through constant comparison. **Results:** Quantitative results revealed significant changes overtime in dribbling for both groups and game involvement for the control group. No significant changes between pre and post intervention phases of the study in passing, decision making and skill execution scores were noted in either group. Qualitative findings supported the notion that for all children technical skills developed earlier than tactical awareness, being dependent upon each learner's ability to perceive and respond to information and cues. For both groups, the institutional-cultural dimensions of the sport club strongly influenced learning and reinforced to the players that the perceptual-physical skill of individual ball possession was an important factor in their success. **Conclusions and Implications:** While TGfU provides an authentic context where children can accumulate age-appropriate game learning, coaches need to judiciously choose the appropriate pedagogy for individual children's stage of learning.

## Physical Activity Based Intervention Involving University Students with ASD and Peer Leaders: A Pilot Study

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Thursday, 20th June - 09:51: (Nexus 154) - Oral Paper

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*Dr. Paul Rukavina (Adelphi University), Dr. Anne Gibbone (Adelphi), Dr. Ellen Kowalski (Adelphi University), Dr. Emilia Zarco (Adelphi University)*

University students typically lack recommended amounts of physical activity (PA), especially those with Autism Spectrum Disorder (ASD), potentially due to social impairment, emotional regulation, low motor skills and/or fitness levels. This pilot evaluated an intervention that provided undergraduate students with ASD (SASD) social and technical support through a partnership with a Peer Activity Leader (PAL). Program goals include positively impacting SASDs' attitudes toward PA and intentions to be active. Nine SASDs (n=9) and PALs (n=9) participated in a 15-week intervention program. PALs received basic training prior to the intervention. Program components for SASDs included exposure to different physical activities with a PAL and personal reflection. SASDs completed PA attitude questionnaires (Nelson et al., 2014) pre- and post-intervention with two constructs (positive, negative). Qualitative measures included analysis of SASDs' journals and post-interviews, and analysis of PAL focus group post-intervention. Trustworthiness measures consisted of peer debriefing and data triangulation. Observations and attendance records indicated program activities were implemented. SASDs reported positive attitudes toward PA (pre:  $M = 4.03$ ,  $STD = .54$ , post:  $M = 4.2$ ,  $SD = .65$ ) and low negative attitudes (pre:  $M = 2.51$ ,  $SD = .57$ , post:  $M = 2.51$ ,  $SD = .67$ ), and were consistent pre-post. Cronbach alphas ranged from .62 to .85. Analysis of journal and exit interviews resulted in four themes related to PA attitudes: 1) mind and body awareness, 2) success orientation, 3) familiar pastimes and routines, 4) future intentions. Focus groups produced critical information for program development. Four themes emerged: 1) awareness of partners' behavioral tendencies and individualism, 2) program highlights and suggested improvement, 3) social interactions and trust building evolution. The program reflected a positive experience for both SASDs and PALs. Program enhancement should include more PAL training/debriefing, addition of social-emotional objectives, activity design modification, inclusion of instructional technology, emphasis on success, and follow-up opportunities to support attitude and more directly impact intentions of continued participation.

# **PE Content**

# Content development and student learning in a middle school backstroke swimming unit

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Thursday, 20th June - 09:30: (Nexus 155) - Oral Paper

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*Mr. Kian Vanluyten (KU Leuven), Prof. Peter Iserbyt (KU Leuven)*

## **Background and purpose**

Content development refers to the selection and sequencing of instructional tasks to achieve a specific learning outcome. The purpose of this study was to analyze content development in terms of task selection based on written lesson plans and student learning in backstroke as a function of this content development.

## **Methods**

One teacher taught five different classes comprising 67 middle school students (aged 11-13 years) the same 5-lesson backstroke unit. Prior to and at the end of the unit, swimming performance was individually assessed by measuring the number of strokes needed to swim 25 meter and 25 meter sprint time. Students were categorized as low-or high-ability swimmers based on their pretest scores. Content development based on written lesson plans was analyzed using Rink's (1994) task categories. Teacher's depth of content knowledge was measured by calculating the ratio between tasks that serve to develop content relative to informing tasks.

## **Results**

The teacher planned 33% informing, 50% extending, 6% refining and 11% applying tasks leading to a depth of content knowledge ratio of 2.0. Wilcoxon signed ranks test detected a significant improvement for both sprint time ( $p < .001$ ,  $ES = .45$ ) and number of strokes needed ( $p < .001$ ,  $ES = .58$ ) for all students. Both high-and low-ability students improved their swimming performance in reducing the number of strokes needed ( $p < .001$ ,  $ES = .51$  &  $ES = .62$ ) and their sprint time ( $p \leq .001$ ,  $ES = .44$  &  $ES = .46$ ). Effect sizes of the program differed between classes ranging between 0.52-0.62 (number of strokes) and 0.24-0.60 (sprint).

## **Conclusions and implications**

Although the teacher's content development and 2.0 ratio allowed both high and low ability students to improve their swimming performance significantly, the impact of the content development varied between classes. Future research should investigate in detail if and why teachers deviate from their lesson plan when teaching.



# The learning effectiveness of an incorporative teaching method using cooperative learning strategy and badminton teaching system

Thursday, 20th June - 09:51: (Nexus 155) - Oral Paper

*Dr. Kuo-Chin Lin (National Sun Yat-sen University), Dr. Nian-shing Chen (National Yunlin University of Science and Technology)*

Background and purpose: To solve the long existing problem of achieving effective badminton learning, this study explored the effectiveness of the proposed incorporative teaching using a badminton teaching system and cooperative learning strategy to examine if the learning efficiency can be elevated. Methods: This study was conducted based on quasi-experimental design and focused on the two badminton skills: Clear and Smash, which were taught for eight weeks. The effective sample size of the experimental group (EG) was 45 in Clear and 44 in Smash. The effective sample size of the control group (CG) was 46 in Clear and 47 in Smash. Cooperative learning strategy was employed in both groups in the first teaching stage. Later in the second stage, the EG was taught with the badminton teaching system. In contrast, the CG was taught only with the traditional teaching method. ANCOVA and independent sample *t* test were used for the data analysis. Results: All the results of the EG were significantly higher than those of the CG. The Clear result of EG ( $M=70.85$ ) significantly surpassed the CG ( $M=53.39$ ),  $p=.001$ . The Smash outcome of the EG ( $M=82.77$ ) was significantly better than that of the CG ( $M=72.22$ ),  $p=.001$ . Conclusions and implications: The study developed an incorporative teaching method using the cooperative learning strategy and the badminton teaching system to enhance learning effectiveness. Instructors could provide instant feedback to students according to the information presented from the system. Besides, learners could note down their movement errors on the performance sheets by reviewing the instant recording with a tablet computer, and the system could also help the fellow learners catch subtle movements precisely and made modifications accordingly. After eight weeks of the experiment, the results showed that the proposed teaching method could greatly enhance learners' learning performance.

## The relationship between bullying experience and extraversion, neuroticism of adolescent athletes

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Thursday, 20th June - 10:12: (Nexus 155) - Oral Paper

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*Dr. Ilona Tilindiene (Lithuanian Sports University), Dr. Aurelijus Zuoza (Lithuanian Sports University)*

The age of adolescence is characterized by challenges such as conflicts in school and in the family, the growing sense of identity, the changing status in the society and this makes adolescent change behaviour. (Peleg-Oren et al., 2012). Researches have found influence on behavioral problems of children with temperament peculiarities (Sanson et al., 2009). Its biological basis reflects the sequence of behavior and personality and emotion predicts, among other factors, the performance behavior of a personality and personality traits forecasts. Also, a correlation was found between temperament of the child's perception of motivation, skills and social functioning - children who have strong personality, characterized by an increased resistance to psychological and social difficulties (Hutchinson et al., 2010). *The aim of study*—to determine relationship between experience of bullying of athlete adolescents with extraversion and neuroticism.

Study investigated how bullying experience related to athletes' extraversion and neuroticism among of 421 adolescents (202 girls and 219 boys), aged 12-16 years. Two questionnaires were provided: G.Eysenck Personality Inventory and the Bullying Questionnaire (based on the Bullying Questionnaire of the British city of York), which was adapted in Lithuania. We conducted tThe Pearson correlation analysis, Man Whitney criterion.

It is established that more than half adolescents bullied others. More than a third of adolescents refer that they participate in school bullying at others and at the same time have been a victims of bullying by peers. The data was showed that girls are more extrovert and have a higher level of neuroticism than boys. Although the results show that the presence of sex - a young man - doubles possibility of bullying others and of experiencing bullying. It was found that extraversion and neuroticism had link with bullying of others - an increase in extraversion and neuroticism increases the experience of bullying others.

# **Teaching Personal and Social Responsibility**

## **A systematic approach to teaching the TPSR Model through developmental stages**

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Thursday, 20th June - 09:30: (Nexus 156) - Oral Paper

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*Dr. Dave Walsh (San Francisco State University)*

Social and emotional learning (SEL) helps children and youth effectively learn skills necessary to manage emotions, set goals, show empathy for others, establish positive relationships, and make responsible decisions. The Teaching Personal and Social Responsibility Model (TPSR)—a holistic, relational, and empowerment-based curriculum model to teaching sport and physical activity—aligns with the goals and strategies of the SEL framework. However, the TPSR model must be properly implemented, which has been an on-going discussion within the TPSR Alliance community. A pre-AIESEP conference graduate level course is being offered to both conference participants and also Adelphi University students with the purpose of teaching the TPSR Model theoretical and practical applications. Students will be provided TPSR goals and strategies through three “developmental stages” for implementing the model. These stages have been created to provide a systematic progression for proper implementation of the model, slowly shifting more responsibility from the teacher to the students. Each developmental stage provides specific detailed strategies for each component of the TPSR model lesson daily format: Awareness Talk, Physical Activity, Group Meeting, and Reflection Time. The shift from teacher directed activities to a more student empowerment approach can be a challenging yet rewarding experience for both teachers and students. This presentation will outline the course objectives, readings, assignments, and peer teaching progressions through the three developmental stages. Additionally, two versions of post-teaching reflections will be provided, one of which is the validated Tool for Assessing Responsibility-Based Education (TARE). Students who take the course and also attend the AIESEP conference will be asked to participate in this presentation. They will share their experiences and reflections on taking the course, including the potential impact the model might have on their own teaching and scholarship.

## **Implementing TPSR as an innovative PE model to embody aspects within the social domain.**

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Thursday, 20th June - 09:51: (Nexus 156) - Oral Paper

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*Dr. Ivan Riolo (Institute For Physical Education and Sport (IPES) University of Malta)*

The objectives of physical education have been encultured by a need to be physically active. Health implications and obesity related issues have added to the isolation of PE from its' potential towards multi-dimensional education. In an attempt to explore the position of the social domain in PE, the first phase of a qualitative study focused on exploring the meaning and understanding of PE teachers on the social domain. The second phase, which is the focus of this paper, involved the implementation of TPSR as an innovative PE model in the Maltese PE contexts. This model was chosen to expose both pupils and teachers to the teaching and learning of educational aspects pertaining to the social domain. The implementation of this value laden model intended capturing the experiences of teachers. TPSR was introduced to six PE teachers who showed a positive disposition to value laden education. These teacher-participants were trained in the model and later implemented it with one PE class within their respective schools over one academic year. Throughout the year, teacher-participants met every four weeks to discuss and share their experiences. This TPSR group developed into a community of practice (CoP). The experiences shared during these meetings were captured via audio recordings (N=8). Teacher-participants were also visited in their schools and interviewed after their TPSR lessons (N=28). A socio-constructivist grounded theory approach (Charmaz, 2011) framed the analytical process which looked at how this model impinged on the teacher-participants' pedagogies. This led to the emergence of five core categories: The model, pedagogical adaptations, progression, challenges and impact. Findings show that the implementation journey of TPSR lived through a CoP, provided for an accentuated meaningful educational experience. This experience challenged systematic teaching and learning methods and suggests exploring further pedagogies of emergence and their potential for genuine holistic education.

# Shaping a responsibility-based program for young elementary students

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Thursday, 20th June - 10:12: (Nexus 156) - Oral Paper

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*Dr. Robin Dunn (Saint Mary's College of California)*

## **Background and Purpose**

Behaviors developed during the elementary school years, whether negative (i.e. disregard for other's feelings, bullying) or positive (i.e. helping others, respecting the rights and feelings of others) often track into adolescence (Theriot & Dupper, 2010). If these early behaviors are negative by the time children reach adolescence, the outcomes of these behaviors can manifest into more severe consequences such as injury, substance abuse, teen pregnancy, jail, and/or death (Fraser et al., 2004; Li et al., 2007). Teaching a responsibility-based program to young elementary students is a messy process. It takes a great deal of time to develop an appropriate curriculum that encourages responsible behavior. The purpose of this presentation is to discuss the practical implications for shaping and running a responsibility program for young children.

## **Method**

Purposive sampling was used to select twelve second and third grade students from a public elementary school located in the midwestern United States. Ninety-nine percent of the students at the school received free or reduced price lunch and the school scored below average on all indicators except attendance as compared to other schools in the nation. Data collection included observations, video-taped lessons, semi-structured interviews, and picture journals over an 8-week period. Interviews and video-taped lessons were transcribed verbatim. Constant comparison and thematic analysis was used during and after data collection to determine overarching themes and sub-themes of this research.

## **Findings and Discussion**

Vygotsky (1978) believed that children construct their own understandings through interactions with peers and more knowledgeable others. The participants' levels of cognitive development and ability, based on their age was considered to create an environment that allowed them to construct knowledge through interpretations of responsibility values. For instance, children drew pictures to illustrate their perspectives of responsibility (respect, participation, self-direction, leadership). Also, during post-activity discussions, with facilitation, children communicated what responsibility looked like, did not look like, sounded like, and felt like showing that they were constructing their knowledge of responsible behaviors.

## **Conclusion**

Hellison (2008) created the Teaching Personal and Social Responsibility (TPSR) model and it has been used as a common curriculum in physical education and after school programs, but needs to be adapted to fit the needs of the program participants. Developing creative ways for children to understand responsibility is vital for practical purposes of teaching responsibility especially to young children.

# **PE Teacher Education**



## Effects of Physical Education Teacher Education Preparation Related to State Mandated Teacher Examinations

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Thursday, 20th June - 09:30: (Nexus 157) - Oral Paper

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*Dr. Debra Vinci (University of West Florida), Dr. Christopher Wirth (University of West Florida), Ms. Charmain Sutherland  
(University of West Florida)*

The state of Florida requires undergraduate students in teacher education degree programs to pass three state required Florida Teacher Certification Examinations (FTCE): General Knowledge (GK), Professional Education, and Subject Area. Passing these exams are essential to graduate from a state accredited teacher education degree program. Historically, undergraduate physical education teacher education (PETE) students were advised to take the GK exam prior to their junior year however students would typically wait until their senior year to take all three exams. If the student did not successfully pass the FTCE, they would not be able to graduate from the university. Additionally, the state of Florida has an alternate certification route that allows any individual with a bachelor's degree to begin working as a teacher with the provision that they will complete the three state required FTCE within three years. These two options for employment as PE teacher greatly impact the undergraduate students' educational pathway in becoming a certified PE teacher in Florida.

The purpose of this presentation is to describe the formative process used in assessing the PETE curriculum. Historical data indicated that from 2013-2017, first time pass rates on the FTCE GK had decreased. Many PETE students avoided taking the GK due to low first time pass rates that prevented them from potentially graduating and/or requiring financial burden due to multiple examination attempts.

The outcome of this curriculum review were revisions to the PETE curriculum. The following strategies were developed to promote student engagement/preparation to sit for these required exams: living learning communities, FTCE study sessions, online modules, test preparation resources, mock exam waivers, required timeline to sit for the FTCE, and high school recruitment. Recruitment with incoming freshmen is necessary to assist students earlier in their academic careers with passing these examinations so that they may pursue teacher education degrees.

# **Empirically validated conceptions of content knowledge: Implications for teaching and the professional development of teachers.**

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Thursday, 20th June - 09:51: (Nexus 157) - Oral Paper

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Dr. Phillip Ward (*The Ohio State University*)

Since Shulman's (1986; 1987) arguments emphasizing the role of content knowledge in considerations of teaching effectiveness, research examining the influence of content knowledge has occupied a central place in inquiries on teaching. However, it was not until recently that significant progress occurred. The purpose of this presentation is to review the evolution of conceptions of content knowledge and to discuss gaps in the research. The first major gain occurred when content knowledge was defined as two sub-domains (Ball et al., 2008; Ward, 2009). Common content knowledge (CCK) was defined as knowledge of the technique and the tactics of a movement; and the rules, etiquette and safety governing its performance (Ball et al., 2008; Ward, 2009). Specialized content knowledge (SCK) was defined as knowledge of the instructional representations of CCK, instructional tasks to teach CCK, and the errors that students can make associated with those tasks (Kim et al., 2018). A second gain occurred in the measurement of CCK and SCK. CCK has been assessed using knowledge and performance tests. SCK has been assessed (a) using Rink's (1979) content development system, (b) an SCK index that allows judgements to be made about the depth of content knowledge possessed or used by teachers, and (c) the development of content maps that allow teachers demonstrate their understanding. This presentation specifically addresses the conference theme of *Professional Preparation for Health and Physical Education, Sport, and Physical Activity* because it examines issues of content knowledge and knowledge transmission relative to the preparation and continuing professional development of teachers (CPD). Among the outcomes of this presentation are contributions to defining the body of knowledge that teachers should know, that in turn should drive the CPD of teachers.

## **A collaborative approach to teaching about models-based practice in physical education teacher education: Teacher educators' and pre-service teachers' experiences**

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Thursday, 20th June - 10:12: (Nexus 157) - Oral Paper

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*Dr. Mats Hordvik (Norwegian School), Mr. Anders Haugen (Oslo Metropolitan University), Ms. Berit Engebretsen (Oslo Metropolitan University), Mr. Lasse Møller (Oslo Metropolitan University), Dr. Tim Fletcher (Brock University)*

### Background and purpose:

Acknowledging the need to understand both what models-based practice (MBP) is and how teacher educators teach pre-service teachers (PSTs) innovative approaches to teaching such as MBP (Casey, 2014), this study was guided by the questions: (i) How does a group of teacher educators experience implementing MBP in a PETE module? and (ii) How does two groups of PSTs experience learning about teaching MBP?

### Methods:

Grounded in self-study of teacher education practices (S-STEP), four teacher educators in a Norwegian PETE department and two groups of PSTs (13 females and 37 males) were involved in a 15-credit MBP module (mixture between practical and theoretical teaching). A teacher educator located in Canada served as critical friend to the teacher educators. Data were generated through (i) the teacher educators' reflective diaries; (ii) audio records of: group meetings between the four teacher educators and critical friend, meetings between pairs of teacher educator participants in different configurations (conducted after peer observations), and individual meetings with the critical friend; (iii) three focus groups with eight PST groups (carried out before, during and on completion of the module). Qualitative content analysis was used to analyse data.

### Results:

Results convey that the collaborative approach to teaching about MBP worked to produce a complex teaching and learning experience for both teacher educators and the PSTs. While such an environment complicated the teacher educators' teaching, the collaborative nature of their approach facilitated the connection between their practical and theoretical teaching. Furthermore, the collaborative approach facilitated both PSTs' learning and their appreciation of an innovative approach to teaching in the form of MBP.

### Conclusions and implications:

This study highlights how a collaborative approach to teacher education practice can intensify the complexity of teaching and learning about teaching MBP while producing increased potential for both teacher educator and PST learning.

# **Influences on Physical Activity**

## Role of Parent–Child Co-Activity: Prevalence and Associations between Parents and Young Children’s Physical Activities

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Thursday, 20th June - 09:30: (Nexus 158) - Oral Paper

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*Ms. Qing HE (The Chinese University of Hong Kong), Prof. Amy Sau Ching Ha (The Chinese University of Hong Kong), Dr. Johan Yau Yin Ng (The Chinese University of Hong Kong)*

**Background and purpose:** Based on the social cognitive theory (SCT) within family contexts, parents have shown a predominant influence on their children’s physical activity (PA) behavior. Parent-child co-activity may be a useful strategy for enhancing PA level within the family. Nevertheless, limited empirical research focused on this proposition. This study aimed to investigate the association between co-activity behaviors of parents’ and their young children’s.

**Methods:** 143 preschool-aged children (mean age=4.52 years,  $SD=0.67$  years) and their parents (mean age=37.62 years,  $SD=4.59$  years) were recruited from 5 preschools in Hong Kong. Parents completed a 5-item questionnaire assessing the frequency of co-activity behaviors. Both parents and children wore ActiGraph GT3X+ accelerometers concurrently for 5 consecutive days (include 2 weekend days) to assess the time spent in PA. Multiple linear regression analyses examined the association between co-activity behavior and parents’ and their children’s PA on weekdays and weekends separately.

**Results:** On weekends, parents’ and children’s walking or cycling together was positively associated with children’s light- to vigorous-intensity physical activity (LMVPA) ( $r = .22$ ) and parents’ LMVPA ( $r = .22$ ). Going to indoor recreation area together was positively associated with both children’s LMVPA ( $r = .29$ ) and their parents’ LMVPA ( $r = .20$ ). Additionally, the frequency of parent-child co-participated outdoor activities was positively correlated with the children’s moderate-to vigorous-intensity physical activity (MVPA) on weekends ( $r = .41$ ) and weekdays ( $r = .22$ ) and parents’ weekend MVPA ( $r = .17$ ).

**Conclusions and implications:** The present study contributes to current knowledge regarding the empirical associations between co-activity behaviors and parents’ and their young children’ PA levels by adopting SCT. Promoting walking and cycling together and co-participating indoor and outdoor activities during leisure time may be an effective strategy to increase both young children’s and parents’ LMVPA, which will lay a foundation to design a tailored and evidence-based intervention in the future.

## EXERCISE: AN ALTERNATIVE BUILDING BRIGDE FOR ANTIDEPRESSANTS

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Thursday, 20th June - 09:51: (Nexus 158) - Poster Presentation

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*Dr. Kaabu Muazu (Jigawa State College of Education, Gumel), Mr. malam hamisu (Jigawa State College of Education, Gumel), Mr. Usman Abdullahi (Jigawa State College of Education, Gumel)*

Exercise reduces depression in populations with clinical and nonclinical symptoms. Particularly, it appears to affect, like antidepressants, neurotransmitter systems in the brain. Not only that, it also helps patients with depression re-establish positive behaviours. This review focused on the effect of physical exercise in the treatment and management of depression.

Exercise produces endorphins, the body's own mood enhancers, and alters the circulation of neurotransmitters much as anti-depressant drugs do. Studies have shown that exercise is effective in the reduction of depression and may be considered an alternative to antidepressants for the treatment of depression. Sustained exercises should form a part of people's lifestyles to avoid retrogression of symptoms. Finally, exercises should be based on the guidance and prescription of exercise physiologists.

**Keywords: Physical exercise, Alternative, Depression**

# **PE Past and Future**

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## The Future of Sport Education: A View from the Academy

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Thursday, 20th June - 09:30: (Nexus 241) - Oral Paper

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*Prof. Tristan Wallhead (University of Wyoming), Prof. Peter Hastie (Auburn University), Dr. Stephen Harvey (Ohio University), Dr. Shane Pill (Flinders University)*

Futures work in physical education is not new, but is particularly sparse. In all cases, however, the goal has been to gain some control over the fate of the field (Kirk, 2010). The purpose of this study was to provide an academy perspective on the future of Sport Education (Siedentop, 1994), with the goal of shaping practice of the model in both PETE and schools, while providing guidance on future research that may secure its position. Participants were 34 university faculty from 11 different countries who had published empirical research on the model. Participants responded to an online survey designed to prompt descriptive reflections on the topics of; 1) Current limitations to the effective implementation of the model in schools, 2) How the Sport Education model should evolve, and 3) Remaining challenges for research on educational outcomes. In-depth qualitative content analysis were conducted using open, axial and selective coding techniques with trustworthiness established through processes of credibility, dependability and confirmability strategies. Findings revealed consensus support for the contemporary and future utility of Sport Education in schools. Perceived constraints to its proliferation in schools included teachers' beliefs about physical education, and the institutional context and curriculum policies that operate in schools. Academics highlighted the need for research that maps teachers' use of the model, including what features they consistently use and why they persist with the model to navigate achieving student learning outcomes. Future empirical research should also address the model's contribution to broader curriculum outcomes and as a potential change agent in disrupting the status quo of contemporary curriculum design. This could be achieved through more robust multi-site, curricular research designs that focus on generating defensible evidence that the model fosters inclusion and contributes to students' ongoing physical literacy and their wider participation in sport and physical activity.

Kirk, D. (2010). *Physical education futures*. Abingdon, UK: Routledge.

Siedentop, D. (1994). *Sport education: Quality PE through positive sport experiences*. Champaign, IL: Human Kinetics.



## A decade of publication trends in European Physical Education Review

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Thursday, 20th June - 09:51: (Nexus 241) - Oral Paper

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*Dr. Chia-Chen Liu (Department of Physical Education, National Taiwan Normal University / Department of Physical Education, National Taichung University of Education), Dr. Lu-hsien Chen (Department of Physical Education, National Taiwan Normal University), Dr. Zhu-shiang Chen (Department of Physical Education, National Taiwan Normal University), Dr. Hui-min Lin (Department of Physical Education, National Taiwan Normal University), Dr. Yen-pang Wang (Department of Physical Education, National Taiwan Normal University), Dr. Feng-Min Wei (Department of Physical Education, National Taiwan Normal University), Prof. Ching-Wei Chang (Department of Physical Education, National Taiwan Normal University), Prof. Ching-Ping Lin (Department of Physical Education, National Taiwan Normal University)*

The purpose of this study was to analyze the publication trends of European Physical Education Review (EPER) from 2009 to 2018, orienting the future directions of sport pedagogy research in Taiwan. The reason why EPER was selected as the targeted journal was in two folds: first, the relative rareness of Continental publication review in the pool of sport pedagogy and second, the relative needs of referring to Continental academic and practical opinions in accord with the latest innovation in education in terms of physical literacy in physical education or core competencies in general. Totally 262 studies published during this time period were analyzed and categorized by the number of author(s), the subject of participants, research topics, research methods and character of research. Before each study was analyzed, the definition of each category or subcategory was well understood by coders and in the beginning stage of analysis, the intercoder reliability was examined which showed over 80% of agreement on each aspect of analysis. Results of this study revealed that: (1) about 53.82% of studies authored by two or three authors, and the proportion of three authors has increased significantly; (2) students were the dominant subject of research (44.27%), followed by teachers (30.15%); (3) the first order of research topic in EPER was the teaching (41.60%), the others (24.05%) were focus on extracurricular activities, sports culture, instrument development, and the topic of curriculum (13.36%) could be regarded as the peripheral subcategory in recent; (4) there was obvious increase of research adopting analytical and qualitative methodologies and the descriptive and experimental methodologies which were regularly adopted in the past had declined rapidly, especially after 2016, the rate of qualitative research is more than others; (5) most of the studies (84.73%) published should be categorized as empirical research in nature rather than literature review (15.26%). Finally, the topic of physical literacy has rarely been articulated, we suggest to explore special students, institutions, organizations or clubs and participant in physical activity during free time in the future. The publication trends found in the international journal would assist scholars in developing considerable research paths of issues, designs, procedures, and so on for the continuous development of knowledge in sport pedagogy research.

## **Breaking free from standards in Physical Education : the experience for obese teenagers**

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Thursday, 20th June - 10:12: (Nexus 241) - Oral Paper

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*Dr. Christelle Marsault (University of Strasbourg), Dr. Lisa Lefevre (University of Strasbourg), Prof. Gilles Vieille Marchiset (University of Strasbourg)*

This research sought to understand the engagement process of obese teenagers during compulsory Physical Education situation. Past literature shows that overweight adolescents tend to exhibit low levels of physical activity during PE lessons, but existential anthropology (meaning “of people existing”) reveals that this interpretation of their activity is in fact mainstream and bound to meet school expectations. Grounded in the science of pragmatic theories (Quéré, 1997), experiential sociology (Dubet, 1994) and existential anthropology (Piette, 2015), this ethnographic study shows a new light on obese teenagers activity in PE by taking simultaneously into account body, space, time and relationship experience of four students. Audiovisual data, non-participating observations and interviews with students, family and friends enabled us to reconstruct their body experience using an alternative mode, called minor reality mode. Contrary to previous studies, our results highlight the richness of these teenagers’ body experience. The minor mode reveals remarkable body, space, time and relationship landmarks, which students may use to stay engaged in situations, despite the weight of the constraints that act upon them. Analysing their behavior through the concept of “reposité”, or the capacity to non-commit, lead to a better or different understanding of normal constraints conveyed in Physical Education. In fact, overweight teenagers tend to «bodily translate» these norms by turning them into a choreographic score that highlights a delicate balance between «doing» and «enduring». Behind the incorporation of standards emerges the creative power of individuals in their existence.

# **Variables Affecting Instruction**

## Development of Minority Youth Swimming Ability: Diminishing Disparities and Drowning

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Thursday, 20th June - 09:30: (Nexus 242) - Oral Paper

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*Dr. Carol Irwin (University of Memphis), Dr. Todd Layne (University of Memphis)*

Fatal drowning remains a leading cause of unintentional injury-related death among US children (1-14 years). Racial and income disparities exist among youth drowning rates. African-American youth ages 11-12 years drown at rates 10 times those of whites, and children qualifying for free or reduced lunch report significantly lower swimming ability. Purpose for this study was to estimate current swimming competence among US children (4-18), and compare to results from 2010. Also, to compare current (2017) to past research (2010) variables that continue to influence youth swimming ability.

Methods for current study replicated ones used in a previous study (2010). A mixed method, cross-sectional study was executed in five cities (Houston, TX; Jacksonville, FL; Las Vegas, NV; Los Angeles, CA; & Memphis, TN). Research was accomplished using YMCA sites. YMCA staff were trained in survey administration (N=1428), and hosted four focus groups (N=15). Common themes and patterns were sought using repeated readings of focus group transcripts using a coding process.

Survey results illustrated a significant improvement concerning overall “no-low” swimming ability from 2010 to 2017 (61.4% in 2010; 49.3% in 2017;  $p<0.01$ ). African-American “no-low” swimming ability progressed, but was not significant (68.9% in 2010; 66.5% in 2017;  $p=0.72$ ). Free/reduced lunch qualifiers who reported a “no-low” swimming ability improved, but also was not significant (65.6% in 2010; 59.9% in 2017;  $p=0.48$ ). Common themes uncovered from the focus group interviews were as follows: *Influence of parent swimming ability, reasons to enroll/not enroll in lessons, fear factor, and parental influence/encouragement.*

Certain marginalized groups still need support to improve swimming ability. Interventions should target African-American children who qualify for free/reduced lunch. Focus group participants agreed that swimming lessons should be mandatory for all children. Free/low cost swimming lesson programs accessible in underserved communities to support youth development was a common solution offered.

## Teachers' attitudes towards using information communication technologies in Physical Education in Singapore

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Thursday, 20th June - 09:51: (Nexus 242) - Oral Paper

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*Dr. Koon Teck KOH (Nanyang Technological Univeristy), Mr. Nien Xiang Tou (Nanyang Technological Univeristy), Dr. Ying Hwa Kee Adrian (Nanyang Technological University), Dr. Martin Camire (University of Ottawa)*

**Background and purpose:** The purpose of the present study was to examine and compare physical education (PE) teachers' attitudes towards using information and communication technologies (ICT) in PE across different demographic groups such as gender, age, teaching experience, and school level.

**Methods:** A total of 422 Singapore in-service PE teachers ( $M_{age} = 38.47$  years,  $SD = 8.31$ ) completed the Physical Education Teachers' Subjective Theories Questionnaire (PESTQ) to assess their perspectives towards integration of ICT in PE lessons. Mann-Whitney U and Kruskal-Wallis H tests were conducted to examine the differences in participants' attitudes across different demographic groups.

**Results:** Results revealed that attitudes towards using ICT in PE lessons significantly differed between teachers of different gender, age, and teaching experience. However, no significant difference was found in attitudes towards integrating ICT in PE lessons among teachers of different school levels. The findings of this study would be valuable for policymakers and stakeholders who would like to promote integration of ICT in PE.

**Conclusions and implications:** Despite its potential to enhance today's education to meet the demands of modern learners, attitudes in using ICT in PE differed across teachers of different age, gender, and teaching experience in the present study. In order for PE to achieve greater adoption of ICT, for policymakers and stakeholders who would like to promote integration of ICT in PE need to adopt differentiated/targeted approaches i.e. age and gender to better cater to the needs of the teachers.

# Effects of Individual and Intergroup Competition and Performance Feedback on Intrinsic Motivation

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Thursday, 20th June - 10:12: (Nexus 242) - Oral Paper

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*Dr. Lit Khoon Zason Chian (Nanyang Technological University), Ms. Noridayu Roslan (Nanyang Technological University)*

## Introduction

Intergroup competition combines both elements of cooperation and competition in achievement motivation (Tauer & Harackiewicz, 2004). Thus, it is believed that participants would value both teamwork and competence when the intergroup competition is structured appropriately. The study investigated the effects of intergroup and individual competition, and performance feedback (i.e., win/loss, timing) on intrinsic motivation.

## Method

Forty-six healthy adults, aged 21 to 40 participated in the present study. Participants were required to perform a novel task involving balancing on a board that had a built-in maze design. The objective of the task was to maneuver a ball around the maze and into the center hole in the shortest possible time, while balancing on the board. Upon completion of each competition condition, participants would complete the Intrinsic Motivation Inventory (IMI: Ryan, 1982). A follow-up interview was conducted to verify the participants' responses.

## Result

As hypothesized, the intergroup competition (IGC) condition reported significantly higher intrinsic motivation ( $M = 3.88$ ) as compared to the individual competition (INC) condition ( $M = 3.74$ ) at  $p < .001$ . In terms of performance feedback, the IGC condition ( $M = 3.44$ ) reported significantly higher perceived competence compared with the INC condition ( $M = 2.74$ ) at  $p < .001$  when the result is a loss. From the interview data, 89.13% of the participants reported that they enjoyed the experimental tasks. However, the responses were divided equally with regard to participation in future IGC or INC balancing tasks when given a choice.

## Discussion

Overall, the present study supported the argument for intergroup competition. In term of practical implications, the key findings provided further insights for physical educators and coaches to be mindful of their program designs when promoting the learning interest of their participants.

# **Symposium 2: Laureus Foundation Sponsored Event**

## Strengthening the focus on social and emotional learning in physical education: Barriers, facilitators, and promising practice

Thursday, 20th June - 11:00: (Nexus 239) - Symposium

*Dr. Paul Wright (Northern Illinois University), Dr. Jackie Lund (Georgia State University), Dr. Melissa Parker (University of Limerick), Dr. Sue Sutherland (The Ohio State University), Dr. Ben Dyson (The University of North Carolina at Greensboro), Mx. Yanhua Shen (The University of North Carolina at Greensboro), Mr. Donal Howley (The University of North Carolina at Greensboro), Dr. Shirley Gray (University of Edinburgh), Ms. Fiona Mitchell (University of Strathclyde), Dr. C. K. John Wang (National Institute of Education, Singapore, Singapore), Dr. Ashley Robertson (Ashley Robertson: Faculty Research Centre for Psychology, Behaviour and Achievement, Coventry University, Coventry, UK), Dr. Michael Hemphill (The University of North Carolina at Greensboro), Mr. Yongsun Lee (The University of North Carolina at Greensboro)*

Physical education (PE) provides a space in the school curriculum to educate the whole child. In addition to psychomotor and physical development, PE presents a dynamic and interactive environment for developing cognitive, affective, and behavioral skills. International guidelines and the curriculum in many nations charge PE with developing social and emotional competencies, positive attitudes and motivation, personal and social responsibility, moral and ethical development, and so on. While research demonstrates PE can foster such outcomes, stakeholders often struggle to define, intentionally develop, and assess them. To address this, many identify social and emotional learning (SEL) as a useful framework. This is reflected in conference sub-theme #4. In this symposium, we explore the place of SEL in the PE curriculum. We consider ways new frameworks may help to define and promote a host of frequently ill-defined affective learning objectives. We consider how progress may involve a blend of well-established PE practices with innovative approaches from other disciplines. The first paper explores alignment between PE and a well-established SEL framework that has been used extensively in classrooms and school wide programs. The second paper is a qualitative study of PE teachers in New Zealand and their perspectives on SEL. The third paper is a mixed methods study on the experience and perspectives of Scottish students during the transition to a national curriculum with an increased focus on social, emotional, and mental well-being in PE. The fourth paper employs multiple methods to evaluate a restorative practice intervention in an American high school designed to help students develop conflict resolution skills in PE. These papers describe efforts and share perspectives from stakeholders in three countries striving to address SEL more explicitly in PE. We anticipate finding shave relevance for researchers, policy makers, and practitioners from any nation who are interested in this topic. (Words: 299)

### **Paper 1**

Title: Aligning social and emotional learning with the physical education curriculum

Abstract:

Related to conference sub-theme 4, *Social-Emotional Learning through Physical Activity and Sport*, the purpose of this session is to lay the groundwork for Social Emotional Learning (SEL) within a physical education setting and recommend strategies for incorporation into physical education. The construct of SEL is, at the same time, cognitive, affective, and behavioral. Students must know and accept the appropriate course of action and then, when given the opportunity, engage in behaviors representing the construct. Whereas physical education does much to promote social responsibility, the second part of SEL – managing emotions – can also occur in physical education settings when teachers intentionally teach it. In this session, we will explain a specific SEL framework involving five interrelated cognitive, affective, and behavioral core competencies: self-awareness, self-management, social



awareness, relationship skills, and responsible decision-making (CASEL, 2013). The potential of physical education to develop these competencies and link to identified curriculum standards and outcomes will be addressed. We will discuss how physical education teachers can embody SEL practices and deliberately teach content in ways that allow students to practice SEL skills. Lastly, possible ways of assessing SEL learning and behaviors to document the impact that physical education can have on SEL will be presented. (Words: 200)

### **Paper 2**

Title: Teachers' perspectives of social and emotional learning in Aotearoa New Zealand primary schools

Abstract:

*Background:* This research was conducted in partnership with teachers and principals in Aotearoa New Zealand (NZ). The purpose of the research was to study the teachers' perspectives of Social and Emotional Learning (SEL) in NZ primary schools. SEL has been defined as the process through which individuals learn and apply social, emotional, behavioral, and character skills required to succeed in schooling, the workplace, relationships, and citizenship (Jones, et al, 2017). Because there is a paucity of research on SEL in NZ, this project was designed to provide new knowledge regarding SEL. *Method:* In this case study design, evidence was collected at three primary schools from teachers' interviews. The qualitative data analysis process established trustworthiness through the strategies of credibility, dependability, confirmability, and transferability (Miles, Huberman, & Saldana, 2015). *Results:* The following themes using teachers' words were identified from the evidence: *Empathy is a big one, making connections, caring, interdependence, and restorative conversations.* *Conclusion & Implications:* The findings reveal that SEL practices are necessary to meet the intentions of the NZ Curriculum (MOE, 2007). More specifically, SEL is related to the NZ key competencies (MOE, 2007) of *Relating to Others, Managing Self, and Participating and Contributing.* (Words: 195)

### **Paper 3**

Title: Understanding students' experiences in a PE, health and well-being context: A Scottish perspective

Abstract:

*Background:* This investigation explored student experience during the first year of a new physical education (PE), health and well-being (HWB) curriculum. The intention of this curriculum was to present holistic learning experiences and support student social and emotional, as well as physical learning. We aimed to uncover the features the curriculum that contribute to positive or negative learning experiences. *Method:* Focus group interviews were carried out with students from one state secondary school (secondary 1 and 2; ages 12–14) and its feeder primary schools (primary 7; age 11 years) immediately after selected PE lessons. To provide additional context, the students also completed a questionnaire (pre–post) which highlighted their motivation for PE over time. *Results:* Interview data indicated that students had several positive and negative PE experiences relating to level of task difficulty, perceptions of choice, social groupings and gender expectations. The questionnaire results demonstrated that this 'new' curriculum had little impact on their motivation for PE. *Conclusion & Implications:* The findings highlight the importance of mixed methods research to provide context-specific account of student experience. This detail may be critical for the development of informed and effective pedagogy that supports student holistic learning in a HWB context. (Words: 199)

### **Paper 4**

Title: Restorative Practices to Support Social and Emotional Learning in Physical Education

Abstract:

*Background:* Students who experience interpersonal conflicts at school are at high risk for school suspension and dropout. SEL competencies can help students build positive relationships. Restorative practices emphasize that conflict is natural and normal in relationships and can be an opportunity to strengthen relationships. The purpose of this study was to examine the implementation of a restorative practices intervention in high school physical education (PE). *Method:* This study used community engagement methodology to identify the need to address conflict resolution skills among students who have experienced school suspension. The authors implemented a restorative practices curriculum in PE over a 6-month period with 20 students in the 9th grade. Data sources include systematic observation and field notes, semi-structured interviews, reflective journaling, and artifacts. *Results:* The implementation process is described by three themes including 1) developing shared norms, 2) exploring the nature of conflicts, and 3) integration with physical activity. Together, the three themes represent the development of social and emotional competencies through a restorative practices approach. *Conclusion & Implications:* PE can provide space to help students develop conflict resolution skills and de-escalate the conflicts they experience at school. Restorative practices may enhance SEL programs by providing intentional strategies to address conflict. (Words: 200)

# **Outdoor Education, Parents and Peer Groups in Sports**

## Moral relations in encounters with nature in outdoor education

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Thursday, 20th June - 11:00: (Nexus 237) - Oral Paper

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*Mrs. Karin Andersson (Örebro University, Sweden), Prof. Johan Öhman (Örebro University, Sweden)*

This presentation relates to a common belief within the outdoor education discourse that encounters with nature can change people's moral relations towards nature. In the presentation we are going to explore the connection between outdoor experiences and moral relations, and focus on processes in which moral relations are at stake in encounters between students and nature.

Our empirical material consists of video-recordings of three different outdoor education practices in Sweden, where we first identify events where moral relations are at stake. We then describe the specific circumstances of the events and clarify how moral relations are established. In the analysis we identify and categorize moral situations using an analytical tool called the ethical tendency based on Wittgenstein's language game method (Öhman 2006). To further explain the specific conditions for the processes we use a language game analyses.

Illustrative examples from three different ethical situations will be presented in which moral issues are at stake; (i) moral reactions, (ii) norms regulating actions towards nature, and (iii) ethical reflections. The examples illustrate the richness and diversity of situations in which the ethical tendency appears in ongoing outdoor education practice and provide in-depth knowledge about the educational processes in which moral relations towards nature are established. The results of the study gives us strong reasons to argue that encounters with nature can widen people's environmental and ethical perspectives in relation to nature. In the conclusions we provide four suggestions that could help practitioners to improve their educational outdoor practices. First, dealing with moral reactions implies responsibility. Second, the importance of bringing ethical questions to the fore in discussions during outdoor activities. The third point is that different ways of working also creates different kinds of encounters with nature, and as a fourth point teachers need to be aware of their language use.

## Parent in Sport: Understanding parents experiences of facilitating their child's engagement in competitive disability sport

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Thursday, 20th June - 11:15: (Nexus 237) - Oral Paper

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*Dr. Janine Coates (Loughborough University), Dr. P. David Howe (University of Western Ontario)*

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### **Background and Purpose:**

The role of parents in youth sport participation is well understood, with literature moving beyond simply exploring the practical support provided by parents toward psychological models of support and the development of parent education programmes (Knight, Berrow & Harwood, 2017). However, this literature does not extend to the role that parents of young athletes with an impairment play in facilitating their engagement in competitive sport. Being a parent of a child with an impairment brings with it added complexity, both practically and psychologically (Russel, 2003), and thus it is necessary to understand the experiences of this group of parents so appropriate support mechanisms can be developed. Therefore, this research asked, “how do parents of young elite athletes with impairments facilitate their child's engagement in competitive sport?”. Within this, routes into sport for these young people, and to the benefits and challenges influencing parents' experience of youth disability sport are explored.

### **Methods:**

This research employed an in-depth phenomenological thematic analysis of interviews with ten parents of elite youth athletes with impairments. Parents were recruited if their child engaged in competitive disability sport at a national or international level and were 25 years of age or under.

### **Results:**

The analysis indicated parents of young athletes with impairments share values relating to equality and inclusion, and that social exclusion in mainstream environments directed these young people toward sport. Parents discussed the complex and multifarious roles they undertook to support their child's sport engagement, indicating a number of challenges including limited local disability-specific sport opportunity and funding difficulties. They also highlighted key benefits for the child (e.g. ‘fitting in’ and independence) as well as for them (e.g. parental support, worrying less)).

### **Conclusions and Recommendations:**

These findings show there are some similarities in the roles undertaken and support provided by parents of young athletes with impairments when compared to parents of non-disabled athletes, however there are also key differences unique to parenting a child with a disability. These differences highlight the complex landscape which parents of young elite athletes with a disability navigate to provide opportunities for their children. Recommendations are made in relation to the support available to parents of young people with disabilities to facilitate engagement with sport and physical activity, and to better support those already engaged in sport.

# Sport from the Perspective of Peer Groups. Intersectional Results of a Qualitative Study

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Thursday, 20th June - 11:30: (Nexus 237) - Oral Paper

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*Dr. Benjamin Zander (University of Goettingen)*

## **Background and Purpose**

Sport in the leisure time of adolescents is well researched, e.g. regarding participation in sports clubs. According to the current state of research in Germany, there is a lack of studies on the collective perspective of peer groups towards sport. This presentation addresses this desideratum for the purpose of answering the following question: Which perspectives on sport in the leisure time do peer groups show and how can these be typified?

## **Methods**

In total, 16 peer group discussions (N = 71) with 12-16 year-olds (male and female) with different educational and social backgrounds were carried out and analyzed using the documentary method (cf. Bohnsack, 2010).

## **Results**

The perspectives on sport can be divided into four types, which are based on different collective orientations of each peer group:

- a) Peer-community: Social relationships with a focus on non-sportive interests.
- b) Tension: Exciting experiences in match-related games and sports activities.
- c) Routine: Fixed spatial, social and temporal structures in and through the sports club.
- d) Self-optimization: Impact on personality and social status through ambitious practice.

## **Conclusions and Implications**

From an intersectional point of view (cf. Collins & Bilge, 2016), all four types are closely related to gender, education and social class. For example, type a) is closely linked to traditional femininity and lower education. On the basis of intersectional differences, the presentation describes consequences for politics and physical education.

## **Literature**

Bohnsack, R. (2010). Documentary Method and Group Discussions. In R. Bohnsack, N. Pfaff & R. Bohnsack (Eds.), *Qualitative Analysis and Documentary Method in International Educational Research* (p. 99–124). Opladen and Farmington Hills: Barbara Budrich.

Collins, P. H. & Bilge, S. (2016). *Intersectionality*. Cambridge: Polity Press.

# **Body Perception**

# Implementing Oblomov methodology in primary schools: opinions and feelings of Belgian PE teachers

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Thursday, 20th June - 11:00: (Nexus 275) - Oral Paper

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*Ms. Maurine Remacle (University of Liege), Mr. Nicolas Franck (University of Li), Dr. Alexandre Mouton (University of Liege),  
Prof. Marc Cloes (University of Liege)*

## Introduction

In Belgium, only 2% of adolescents aged 10 to 17 reach physical activity (PA) international recommendations (Wijntjes and al., 2016). Motivating young people to practice PA becomes a priority (Unesco, 2017). Therefore, new pedagogical approaches seem essential. An Erasmus+ program has been designed in that perspective. It proposes an innovative pedagogical approach that combines physical activity and theatre: the Oblomov (Obesity and Low Motility Victims) project (see <https://www.oblomovproject.eu/>). Nevertheless, for teachers, adopting an innovation can represent a challenge. In this paper, we will analyze the evolution of the reactions of a group of physical education (PE) teachers who agreed to test the experimental approach.

## Methods

Five PE teachers working in primary schools of the region of Liege (Belgium) participated to a 2 days training designed to explain the principles of the Oblomov method and to let them acquiring fundamental skills related to the use of open scenario techniques (dramatization). In parallel, respecting a collaborative approach, the participants were invited to validate the content and organization proposed by the researchers. After modification of the initial project, they taught a 10 lessons unit to eight classes (5th and 6th grades). Questionnaires and/or interviews were proposed before (T0) and after (T1) the training session, before (T2) and after (T3) the unit. Moreover, during the unit, after each lesson, teachers sent audio reports. A content analysis has been processed.

## Results and conclusions

Preliminary results exposed, at the beginning of the study, that PE teachers were not enthusiastic about the new pedagogic approach. The majority thought, indeed, that it was too childish for their pupils. However, at the end of the cycle, teachers were relatively positive about the Oblomov methodology. Further data will help to better understand the positive and negative aspects, as well as the impacts put forward by the PE teachers.



# Reducing body dissatisfaction in adolescent girls: quantitative results of a school-based intervention study in physical education

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Thursday, 20th June - 11:21: (Nexus 275) - Oral Paper

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Ms. Johanna Korte (TU Dortmund University, Department of Sport and Sport Science)

## Background and purpose

Body image concerns are reported especially by adolescent girls (Shagar, Harris, Boddy, & Donovan, 2018), and are associated with different health-related risk factors (e.g. Neumark-Sztainer, Paxton, Hannan, Haines, & Story, 2006). Regular physical education (PE) lessons have rarely been considered as a possible setting for intervention studies, especially for the purpose of increasing body satisfaction. Hence, a theoretically-driven intervention study is developed and implemented in PE lessons for secondary schoolgirls. The following study investigates, if this specific sport didactic intervention program can reduce body dissatisfaction in adolescent girls.

## Methods

The study followed a quasi-experimental design with  $N = 288$  participants aged 13–20. Adolescents participated in 6 weeks of a sport didactic intervention program in PE ( $n = 142$ ;  $M_{age} = 16.01$ ), completed by their PE teachers. A control group underwent regular PE ( $n = 146$ ;  $M_{age} = 15.66$ ). All participants were pretested and post-tested in body image variables (e.g. Eating Disorders Inventory-2: Paul, & Thiel, 2005) with a paper and pencil questionnaire. All the analyses were performed in IBM SPSS version 25.0.

## Results

First results from the repeated-measure ANOVA revealed a significant main effect ( $F(1,246) = 4.87, p = .028, h_p^2 = .019$ ) in improvement for body dissatisfaction across the intervention and the control groups. However, the hypothesised significant interaction effect between change in body dissatisfaction and group was not revealed ( $F(1,246) = 0.25, p = .616, h_p^2 = .001$ ).

## Conclusions and implications

Although participants in both groups showed positive significant changes in body dissatisfaction, there were no significant differences between the groups. One possible reason might be that PE teachers themselves led the intervention and teacher variance might occur. Hence, modifications to the implementation are recommended as the future work. More detailed analysis of subgroups (e.g. for individual intervention classes) will be presented and discussed at the conference. The decrease in body dissatisfaction during the period studied, albeit slight, may suggest that participation in a body positive intervention may help adolescent girls in reducing increases in body image concerns. In the light of current fitness discourses and common body modification practices (e.g. excessive exercise or diet behaviour) PE can be an important setting of supporting positive body image and wellbeing. However, further research for body positive promotion intervention is recommended within the context of PE.

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Key words: Body dissatisfaction, Physical education, Intervention program, Adolescents, Girls

## In shape or out of form? Dealing with diverse bodies in current PE curricula

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Thursday, 20th June - 11:42: (Nexus 275) - Oral Paper

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*Dr. Sebastian Ruin (German Sport University Cologne)*

### **Background and purpose**

Concerning inclusive PE, which is promoted in many countries all over the world (Block, Giese & Ruin, 2017), dealing with diverse persons having diverse bodies is of growing importance (Giese & Ruin, 2018). As in many other countries, education policy in Germany strives to improve the full participation of all learners. Therefore, one could assume, that German PE-curricula –as binding specifications – should take diversity into account. Hence, the author examines how diversity is problematized in current PE-curricula in Germany.

### **Methods**

To examine in what manner diversity is considered, the valid curricula of the 3 federal states (exemplary for different PE-traditions; Geßmann, 2008) were analyzed. A qualitative content analysis with deductively derived categories (Kuckartz, 2014) was carried out, using *diversity* as main-category and further six specifying dimensions (*sex, age, impairment, nationality, religion/world view und sexual orientation*) of the pedagogical and -sociological discourse on diversity (Rulofs, 2014) as sub-categories. Subsequently, the findings were valued against the theoretical perspective of ableism, to identify exclusionary potentials (Giese & Ruin, 2018).

### **Results**

Although there are differences between the states, the exemplary analysis show that over all, the discourse on diversity finds little resonance in the examined PE curricula. While in some documents *sex, impairment* and *world view* are taken into account on the level of general objectives, the concrete standardized performance expectations – which are the main part in all of the documents – never consider diversity.

### **Conclusions and implications**

The analysis reveal exclusionary potentials in the curricula, based on unquestioned imperatives about abled bodies. This means, that teachers, who want to promote inclusion somehow have to act against the valid curricula, which are binding specifications for instructional processes. Thus, there is an urgent need to revise the German PE-curricula if the project of inclusion should be taken forward.

# **Physical Activity and Physical Education Policy Studies**

## **Findings of the first Lithuanian Physical Activity Report Card for Children and Youth: the current ‘state of the nation’ and the priorities for improvement revealed**

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Thursday, 20th June - 11:00: (Nexus 154) - Oral Paper

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*Dr. Rita Gruodyte-Raciene (Lithuanian Sports University), Prof. Arunas Emeljanovas (Lithuanian Sports University), Dr. Brigita Mieziene (Lithuanian Sports University), Prof. Saulius Sukys (Lithuanian Sports University), Dr. Renata Rutkauskaite (Lithuanian Sports University), Dr. Laima Trinkuniene (Lithuanian Sports University), Dr. Vida Janina Cesnaitiene (Lithuanian Sports University)*

The purpose of the production of national Physical Activity Report Cards for Children and Youth is one of the initiatives of the Active Healthy Kids Global Alliance (AHKGA) - a network of researchers, health professionals and stakeholders from 49 countries. Established in 2014 with the aim of advancing a movement that would seek children and young people throughout the world moving more and sitting less every day, the network provides opportunities to advance knowledge on the current ‘state of the nation’ regarding physical activity (PA) levels of 5-17 year old children, facilitates in identifying the gaps in current knowledge and research, helps to act as an advocacy tool for the key-actors implementing strategies for PA promotion in school-aged children, and serves as a platform for comprehensive comparisons at a global level.

The first Lithuanian Report Card 2018 included ten core PA indicators, which represents behaviors (Overall PA, Organized Sport and PA, Active Play, Active Transportation, and Sedentary Behaviors), settings and sources of social influences (Family and Peers, School, and Community and Environment), strategies and investments (Government) and Health Related Physical Fitness of 5-17 year aged children. Only nationally representative data from multiple sources from 2013 onwards were utilised to assign grades in accordance with common benchmarks.

In Lithuania the dominating grades derived for the investigated indicators were mainly from „C-“ to „C+“. Poor grade (D) was assigned to the indicator „Family and peers“. One indicator (Active Play) was assessed as INC (incomplete), meaning that available data was not sufficient to make a conclusion.

The analysis revealed that stronger strategic commitment from government is required at all levels to improve the current situation in Lithuania in order to achieve that the majority of children and youth would comply the recommended PA levels, i.e. 60 minutes of moderate-to-vigorous physical activity daily.

# Charter School Websites: A Physical Education and Physical Activity Content Analysis

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Thursday, 20th June - 11:21: (Nexus 154) - Oral Paper

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*Prof. David Kahan (San Diego State University), Prof. THOMAS MCKENZIE (San Diego State University), Prof. Hans van der Mars (Arizona State University)*

**BACKGROUND AND PURPOSE:** School websites have potential for bridging the gap between school and home settings. They can inform the importance of physical activity (PA) and physical education (PE) and serve as catalysts for engaging students in PA programs. U.S. state legislation now allows families to make choices among schools, and there has been enormous growth in charter schools since 1991. Charter schools permit flexibility in hiring, curriculum, management, and other practices. Investigations of school websites relative to PA are rare; our purpose was to assess the content of websites of charter elementary schools in California, the state with the most charter schools.

**METHODS:** We conducted a cross-sectional content analysis of PE/PA information on the websites of 520 charter elementary schools in 184 California cities during fall, 2017. The presence of information for 10 pre-determined categories was tallied and frequencies and proportions calculated.

**RESULTS:** Nearly all the charter schools (97%) had a functioning website, but 39% of them did not even mention PE or PA. Mentioning PA was infrequent across program types: PE (30.6%), recess (30.2%), interscholastic sports (16.5%), and intramurals/club programs (20.4%). Specific characteristics of PE were mentioned infrequently: PE curriculum (12.5%) and lesson frequency (9.2%) and duration (4.8%). A PE teacher was mentioned on 22.5% of websites, but only 3.8% of them indicated the teacher had specialist PE training. Only 23.8% of the websites included a PA image.

**CONCLUSIONS:** Our analysis indicated websites were underdeveloped as means for informing constituents about the importance of PE/PA or when and how students might engage in them. Little attention was given to PE, the centerpiece of a comprehensive school PA program and component most frequently identified in legislative policies. We encourage schools to improve their messaging about the PE/PA opportunities and recommend that professional organizations provide schools with information on how to improve their websites relative to PA programming.

## Unpacking the analytic and pedagogical potential of the salutogenic concept Sense of Coherence for HPE

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Thursday, 20th June - 11:42: (Nexus 154) - Oral Paper

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*Dr. Louise McCuaig (University of Queensland), Prof. Mikael Quennerstedt (University of Örebro)*

Research and enactment of salutogenic approaches to healthy living have attracted increasing attention within the field of Health, Sport and Physical Education (HSPE) (see McCuaig & Quennerstedt 2018). The salutogenic model of health, suggested by Aaron Antonovsky, is a resource based, problem-solving model, which focuses attention on ‘what creates health rather than only what are the limitations and the causes of disease’ (Antonovsky, 1979, p. 12). Antonovsky proposed that the promotion of health is reliant on access to personal and social resources that can aid in combatting the stressors of life that also promotes a Sense of Coherence (SOC). SOC is, according to Antonovsky (1987), what makes the world comprehensible, manageable and meaningful, and thus helps seeing the world as making sense.

While health promotion researchers have focused almost exclusively on Antonovsky’s quantitative Sense of coherence (SOC) scale, (Eriksson, 2007), HSPE scholars have emphasised the potential of social theory to counter the absence of the sociological explorations of healthy living that Antonovsky emphasised in his original conceptualisation of salutogenesis. Notwithstanding the usefulness of this sociological research agenda, in this paper we offer some generative conditions under which HSPE researchers and practitioners might engage more meaningfully with Antonovsky’s SOC concept in terms of what creates meaningful, comprehensible and manageable life experiences. We begin with a review of salutogenic theory, focusing attention on the emergence of the SOC within Antonovsky’s theorising. Following this, we draw on an Australian research project exploring teachers’ health work to demonstrate the analytic potential of SOC in discerning the extent to which health oriented caring teaching serves as a resource that promotes students’ and teachers’ health and wellbeing. We conclude with a brief overview of critical caveats and cautions that ensure researchers’ engagement with the SOC retains the fullness of Antonovsky’s salutogenic perspective.

# **Holistic PETE**



## Personal and social development in primary school physical education: The perspective of Dutch PE teachers

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Thursday, 20th June - 11:00: (Nexus 155) - Oral Paper

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*Ms. Katrijn Opstoel (Utrecht University), Dr. Frank Jacobs (The Hague University of Applied Sciences), Dr. Frans Prins (Utrecht University), Prof. Leen Haerens (Ghent University), Prof. Jan van Tartwijk (Utrecht University), Prof. Kristine De Martelaer (Utrecht University)*

In a world that is rapidly changing, children can benefit from developing a range of personal and social skills in physical education, such as responsibility and problem-solving (Weiss, 2011). Yet, while the development of personal and social skills seems a widely-accepted goal of PE, many teachers seem to struggle with the realization of these goals (Jacobs, Knoppers & Webb, 2013). Some PE teachers, however, indicate they have found a way to realize these personal and social goals in an effective way. This research aimed at exploring these expert's perception of and experience with personal and social goals. In total, 12 expert PE teachers were recruited via the Dutch Academies for Physical Education. The experts were graduated as a specialist PE teacher, worked as a primary school PE teacher for more than five years, and were known for spending time and effort on personal and social goals. All teachers were interviewed through a semi-structured questioning route including questions such as: How do you support children in their personal and social development? What do you expect children to learn? All interviews were audio recorded and transcribed verbatim. At this moment, the data is being analyzed. The results as well as implications for future practice and research will be discussed in detail as part of the presentation.

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## Holistic Physical Education: Elevating Teacher Preparation to Meet 21st Century Student Needs

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Thursday, 20th June - 11:21: (Nexus 155) - Oral Paper

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*Dr. Anne Merrem (University of West Georgia)*

It might be about going back to our Western or Eastern roots: understanding and implementing the education of the whole student to prepare them for successful lives through what Aristotle termed *Eudaimonia*, “right” action (Miller, 2017). Confucius showed us the connection between education, confidence, hope, and the promotion of peace (Flanagan, 2011). Developers of teacher preparation programs and professional preparation for physical activity leaders and sport coaches have attempted to meet current pupils’ health and physical skills acquisition needs. The long-term learning outcome for youth is to adopt healthy life styles. However, there seems to be a missing link between connecting pedagogical principles with practical application in teaching, coaching and learning.

In this presentation, a holistic model to illustrate the link between pedagogical principles and optimal learning outcomes will be explained, emphasizing competence and confidence in physical endeavors. A tacit benefit of this holistic approach may be the space for creativity in movement, game play, and outdoor pursuits. Cognitive teaching and coaching centers on training awareness, attention, and focus. Thus, the psycho-motor, cognitive, and affective domains can be addressed. Mind, body, and spirit can be reached through the promotion of comprehension, performance, leadership skills, and reflection.

The presentation addresses professional preparation aspects for physical education teachers, physical activity leaders, sport coaches, and provides additional insight into the holistic educational process for university and school administrators as well as for athletic directors.

Conclusions from and implications of this presentation range from considerations of how to implement holistic approaches intentionally and suggestions for research in individual sports or physical education teaching units.

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## Mediating role of leadership self-efficacy on the relationship between emotional intelligence and leadership style in pre-service Physical Education teachers

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Thursday, 20th June - 11:42: (Nexus 155) - Oral Paper

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*Dr. Manolis Adamakis (University College Cork), Dr. Aspasia Dania (National and Kapodistrian University), Dr. Irene Kossyva (National and Kapodistrian University of Athens)*

**Background and purpose:** Emotional Intelligence (EI) in Physical Education (PE) is receiving growing attention from sport scientists. Studies in different sport settings have demonstrated positive associations between leadership self-efficacy (LSE), trait EI and various aspects of leadership. It can be proposed that coaches and PE teachers' assessments on their emotions can directly affect their perceptions of leadership styles (LS), as well as indirectly through their efficacy beliefs.

In this study, we investigated the mediating effects of LSE on the relationship between trait EI and LS of pre-service PE teachers during their school placement (SP) practise.

**Methods:** A total of 230 pre-service PE teachers (119 males, 111 females) participated in the study ( $M=21.62$ ,  $SD=2.56$  years). The following instruments were used: Schutte Self-Report Inventory, LSE scale and Leadership Scale for Sports. Initially, descriptive statistics and bivariate correlations were calculated for all variables. Subsequently, Structural Equation Modeling was used to determine the pathways by which EI and LSE interact to influence LS.

**Results:** Two models were tested. The first model included one direct predictive path from EI to LS, without including LSE. This proposed model fitted marginally the data based on the cutoff values of the fit indices;  $CFI=0.896$ ,  $GFI=0.952$ ,  $RMSEA=0.060$ . For the second model mediating predictive paths were set from EI to LSE and LSE to LS and a direct path from EI to LS. This proposed model had a better fit to the data;  $CFI=0.916$ ,  $GFI=0.950$ ,  $RMSEA=0.056$ .

**Conclusions and implications:** The present results indicated that PE pre-service teachers' perceptions about their personality traits linked to emotions can be predictive of their efficacy beliefs and indeed, their behavior and leadership during SP. While these findings require replication on other samples and SP settings, we suggest the usefulness of persistent investigation of EI because of its potential utility as a predictor of leadership and, potentially, academic and teaching success.

# **Assessment of Fundamental Skills**

## New physical education criteria-based tests battery for the assessment of K-8 students' fundamental motor skills: validation process and integration into the pedagogical teaching-learning context

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Thursday, 20th June - 11:00: (Nexus 156) - Oral Paper

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*Dr. Horia-Daniel IANCU (School of Kinesiology and Leisure, Université de Moncton, New Brunswick), Mr. Yvan Picard (School of Kinesiology and Leisure, Université de Moncton, New Brunswick), Dr. Mathieu Bélanger (Faculty of Medicine and Health Sciences, Université de Sherbrooke, Quebec), Dr. Jacques Richard (School of Psychology, Université de Moncton, New Brunswick), Mr. Raphaël Savoie (Faculty of Education Sciences, Université de Moncton, New Brunswick), Dr. Jean-François Richard (Faculty of Education Sciences, Université de Moncton, New Brunswick)*

**Background and purpose:** A key role of quality school physical education (PE) is to enable children to learn and master motor skills. The assessment of fundamental motor skills (FMS) therefore becomes essential. Limitations of existing measurement tools include being designed exclusively for clinical and sport contexts, having age restrictions (3 - 10 years old) and not emphasizing, as much as it should, pedagogical purposes of PE learnings. Accordingly, we developed a battery of 24 tests for their evaluation. Pilot testing took place in 7 schools (N = 1356 students) to assess feasibility, validity and reliability of 20 fundamental psychomotor skills tests of this battery.

**Methods:** In accordance with established standards for the development of psychomotor tests (Morrow et al., 2010), we identified the skills to be assessed, developed evaluation parameters by focusing on the performance process (quality) rather than the product, and determined the tests procedures. Other experts evaluated the face and content validity of this battery. Finally, each test was administered to targeted age groups students (2<sup>nd</sup>, 5<sup>th</sup> and 8<sup>th</sup> grade) to assess the test's feasibility and to refine evaluation parameters. This process was repeated following modifications of testing procedures aimed at improving psychometric properties. Inter-rater reliability and criterion validity were assessed with Pearson correlations, Kappa statistics, Pearson's chi-squared statistics and Cramer's V symmetric measurements.

**Results:** Subsequent to the first test administration and the first feedback from PE teachers on test parameters, we modified instructions to improve clarity and adjusted the estimated time of administration for some grade levels and the training of raters. Following the 2<sup>nd</sup> and 3<sup>rd</sup> school's visits and modifications of testing procedures, acceptable to good indices of inter-rater reliability (Pearson=0,61-0,87; Kappa=0,55-0,83) and criterion validity (Pearson's chi-squared  $\chi^2=98,942-124,732$ ; Cramer's V symmetric=0,696-0,827) were found for final versions of the tests.

**Conclusions and implications:** Our study shows that the development of this criteria-based test battery following a rigorous methodological process is complex and time intensive (over 4 years). Nevertheless, the statistical analyses led to an appropriate validity and intra-rater reliability. We are continuing to investigate the ability of this criteria-based test battery to identify known group differences. Also, a process of establishing standardized measuring procedures is already in place. This test battery could become a standard measuring tool for assessing the FMS related to the PE learning outcomes, either for diagnostic, formative or summative purposes, within different teaching-learning scenarios of the French school curricula in New Brunswick, Canada.

# The psychometric properties of a newly developed instrument to objectively measure ball handling skills (BHS-test)

Thursday, 20th June - 11:21: (Nexus 156) - Oral Paper

*Dr. Konstantin Kougioumtzis (University of Gothenburg), Dr. Pär Rylander (University of Gothenburg), Dr. Magnus Karlsteen (Chalmers University of Technology)*

**Background and purpose:** Ball skills as a subset of fundamental motor skills are predictors for time spent in physical activity. Currently, most tools evaluate ball skills utilizing subjective ratings. The aim of this study was to examine the psychometric properties of a newly developed instrument to objectively measure ball handling skills (BHS-test).

**Methods:** Participants were a convenience sample of 213 adolescents (age  $M = 17.1$  years,  $SD = 3.6$ ; 55% females, 45% males) recruited from upper secondary schools and invited to a sports hall for the assessment. The 8-item instrument incorporated both accuracy-based ball skill tests and repetitive-performance tests with a ball. Testers counted performance manually in the four tests (one throwing and three juggling tasks). Furthermore, assessment was technologically enhanced in the other four tests utilizing a ball machine, a Kinect camera and balls with motion sensors (one balancing and three rolling tasks). 3D printing technology was used to construct equipment, while all results were administered digitally with smart phones/tablets, computers and a specially constructed application to send data to a server.

**Results:** The instrument was deemed reliable ( $\alpha = .77$ ) and principal component analysis was used in a random subset (53 of the participants). Furthermore, latent variable modeling was employed to confirm the structure with the remaining subset (160 of the participants). The analysis showed good factorial-related validity with one factor explaining 57.90 % of the total variance. Four loadings were larger than .80, two more exceeded .76 and the other two were .65 and .49. The one factor solution was confirmed by a first order model with one general factor and an excellent fit between model and data ( $\chi^2 = 16.12$ ,  $DF = 20$ ; RMSEA = .00, CI90 .00–.05; CFI = 1.00; SRMR = .02). The loadings on the general factor ranged between .65 and .83.

**Conclusions and implications:** Our findings indicate good reliability and construct validity for the BHS-test. To develop the instrument further, more studies are needed with various age-groups, e.g. children. We suggest using the BHS-test for diagnostic or assessment purpose during physical activity interventions that focus on ball games. Moreover, as ball sports dominate the content of physical education at schools, the BHS-test can also be seen in terms of assessing pupil ball skills and assisting teachers' efforts towards more valid, reliable and objective grading procedures.

## **Cross-Validation of the Canadian Assessment of Physical Literacy-II in the Children of China: An Evaluation of Quality Physical Education**

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Thursday, 20th June - 11:42: (Nexus 156) - Oral Paper

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*Ms. Minghui Li (The Chinese University of Hong Kong), Dr. Raymond Sum (The Chinese University of Hong Kong)*

**Background:** The concept of physical literacy (PL) has received increasing focus during the last decade. One of the most widely used PL assessment methods is the Canadian Assessment of Physical Literacy, 2<sup>nd</sup> version (CAPL-2). The objective of this study was to cross-validate CAPL-2 in the Chinese children aged 8-12 years old.

**Methods:** After going through a back reverse independent translation, a translated CAPL-2-CN was finally confirmed. Public schools in South China were approached using a convenient sampling. In total, 323 children aged 8-12 years old were recruited to participate in the assessment. Each domain of CAPL-2-CN has different assessment methods: Daily Behavior was objectively measured by ActiGraph GT3X+ accelerometer worn on the waist for children for seven consecutive days, and subjectively assessed by questionnaires; Physical Competence was assessed using PACER, Plank, and CAMSA; Knowledge and Understanding, and Motivation and Confidence were both subjectively measured using translated questionnaires of CAPL-2-CN.

**Results:** Independent t-test showed that there were significant differences in the global PL scores among boys and girls ( $p < .05$ ). The confirmatory factor analysis (CFA) was performed on data collected from 279 children (136 male (48.7 %)) who had complete raw scores for all CAPL protocols. Although the results indicated a five-factor validity of CAPL-2-CN, which was different from the original CAPL-2, CFA proved that the construct demonstrated a good fit to the new model, containing five domains: Daily Behavior, Physical Competence, Knowledge and Understanding, Motivation and Confidence I, and Motivation and Confidence II.

**Conclusions:** The CAPL-2-CN thus appeared to be reliable and valid as a measure of the PL level of children aged 8-12 in China. Physical education professionals in China may thus evaluate quality physical education through validated CAPL-2-CN to recommend appropriate intervention programs for younger generations.

# **Gender Studies**



## Interrogating the political landscape of heteronormativity and cishnormativity in schools: Strategies and challenges

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Thursday, 20th June - 11:00: (Nexus 157) - Oral Paper

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*Ms. Hayley McGlashan (The University of Auckland)*

This presentation reports on a critical ethnographic study with queer youth in a co-educational secondary school in Auckland, New Zealand. The focus of this research was to explore how sex, gender and sexually diverse students actively negotiate their intersectional and fluid identities within the schooling environment, and how the school supports them in so doing.

Discourses of gender and sexuality are constituted through a multiplicity of schooling structures, processes and power relations produced by heteronormativity and cishnormativity. Such discourses act to normalise sex/gender binaries, not only because these practices are widely accepted, but also because they are so securely entrenched in powerful institutions. Butler (1999) maintains that gendered relations of power exist within a matrix wherein sexuality is a product of “regulatory practices that generate coherent identities... and asymmetrical oppositions between ‘feminine’ and ‘masculine’ ” (p. 24). The matrix, however, is never totalising but also provides opportunities for discursive agency (Butler, 1990). If schools open up possibilities for students to recognise their agency and to contest the heteronorms and cishnorms existent in school sites, it may be possible to imagine shifts in policy, discourse and everyday gendered practices.

In this presentation I will explore how the queer and gender diverse in this study interrogated the structures of their school to lead change around prevailing hetero and cishnormative policy and discourse. Such initiatives initiated from the schools Queer Straight Alliance (QSA) which was the primary space of observation for this ten month critical ethnography. The QSA met once a week and was co-facilitated by staff and students, with approximately 30 regular student attendees and 4 staff. This paper will explore the complexities of such co-facilitation with some suggested strategies for health and physical education teachers who are willing to work alongside queer youth to achieve change.

# EXPERIENCES IN PHYSICAL EDUCATION OF OTHER SUBJECT TEACHERS. Impact of barriers and opportunities to promote healthy and active lifestyles

Thursday, 20th June - 11:21: (Nexus 157) - Oral Paper

*Prof. Lucia Gomes (Faculdade de Educação Física e Desporto, Universidade Lusófona de Humanidades e Tecnologias.), Prof. Madalena Ramos (Instituto Universitário de Lisboa (ISCTE-IUL), CIES-IUL.), Prof. João Martins (Faculdade de Educação Física e Desporto, Universidade Lusófona de Humanidades e Tecnologias. Laboratório de Pedagogia, Faculdade de Motricidade Humana e UIDEF, Instituto de Educação, Universidade de Lisboa), Prof. Joana Claro (Faculdade de Educação Física e Desporto, Universidade Lusófona de Humanidades e Tecnologias.), Prof. Francisco Carreiro da Costa (Faculdade de Educação Física e Desporto, Universidade Lusófona de Humanidades e Tecnologias.CIPER - Centro Interdisciplinar de Estudo da Performance.)*

**Background and purpose:**Schools and Physical Education (PE) have been recognized as important contexts for the promotion of physically active lifestyles. The achievement of that aim requires sustained cooperation and shared values among all school members. The study analyses teachers' past experiences in PE and how these experiences are related to the value that they now attribute to PE (Haynes, Miller, & Varea, 2016).

**Methods:** A mix method was used. A questionnaire (Carreiro da Costa & Marques, 2011) about past experience in PE, opinion about PE status and aims, relationship between physical activity (PA) and knowledge of PA guidelines, was applied to 297 teachers (58 male;239 female). From this sample, 24 teachers were selected to be interviewed in the qualitative study. These teachers were divided into three focus groups depending on their early experiences in PE (good experiences,bad experiences or both). The MaxQda was used for the qualitative data analysis.

**Results:**Teachers who have had good experiences in PE, in elementary and secondary school, value the role of PE in the promotion of physical activities and refer the teacher, the curriculum, and a high self-perception of competence as the factors that have contributed to building positive experiences. Conversely, teachers who have had bad experiences do not value the importance of both PE and physical activities in the education of students, and they refer teachers, curriculum, certain equipment, traumatic experiences and a low level of self-competence as explanatory factors of negative attitudes towards PE

**Conclusions:**These results support the importance of having good early experiences in PE to generate attitudes in teachers that value PE, supporting the significance of PE in promoting active lifestyles. Negative experiences can lead teachers to become barriers that will hinder the promotion of PA in school.

## 4 and 5 year olds' understanding of fluid intake within England.

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Thursday, 20th June - 11:42: (Nexus 157) - Oral Paper

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*Mr. Josh Williamson (Canterbury Christ Church University), Dr. Kristy Howells (Canterbury Christ Church University)*

### Background

Within the England children start school in the September following their fourth birthday. Within the preschool school setting and within the first year of primary school the same early years' foundation stage curriculum is followed (DfE, 2013). Within this curriculum children are to learn about the importance for good health of physical exercise, and a healthy diet. Previously, Coppinger and Howells' (2019) completed an international comparison between primary schools in Ireland and England focusing on children's understanding of fluid intake and found that children under 11 years did not understand the amount of fluid that is needed each day for good health, however, they only had a small sample of children from the 4 – 5 age category. This paper focuses solely on this youngest age range within England's context of primary (elementary) school as a focused analysis.

### Methods

The questionnaire used by Coppinger and Howells in their research has been adapted to be aged appropriate for use for 4 and 5 year olds, including physical visual representations to aid understanding of the younger age group. 130 children from 5 different schools, in the same geographical location, were questioned as to their understanding of fluid intake, when they are allowed to drink within the school setting, the barriers that prevent them from drinking and who influences and encourages their fluid intake.

### Results and Conclusion

Data will be presented according to age, and gender. Data collection was undertaken between January and April 2019. It is hypothesised that the age range of 4 and 5 year olds will not understanding their daily fluid intake needs. It is proposed that this research will give insight to help teachers and practitioners identify what is the current understanding of this age range and how educational materials could help the children, teachers and parents develop the children's knowledge to drink healthily.

# **Professional Development in PE**

## The Journey of a Mentor Teacher in a Professional Development Training Using Participatory Action Research

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Thursday, 20th June - 11:00: (Nexus 158) - Oral Paper

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*Dr. Dominique Banville (George Mason University), Dr. Pierre Boudreau (University of Ottawa)*

Clinical preparation for mentor teachers (MTs) is poorly define and inadequately supported yet accreditation agencies requires that pre-service teachers be supervised and mentored by effective practitioners (NCATE, 2010). The purpose of the presentation is to describe the impact of a professional development training using Participatory Action Research (PAR) (Chevalier & Buckles, 2013) on a rookie MT. Three of the eight MTs receiving a student teacher (ST) at the secondary level accepted the invitation to participate. All agreed to be interviewed prior to and at the completion of the 8-week internship, come on campus for a 3.5-hour group training session prior to the internship, and participate in four 30-minute videoconferences throughout the internship. Their STs were asked to participate and Richard's ST, Kirk (both pseudonyms), accepted the invitation. Kirk participated in two interviews (pre and post internship), and allowed non-participatory observation of his teaching and audio-recording of the feedback received post-teaching. The transcription of audio-recorded sessions, documents collected, and field notes were analyzed inductively and independently by each co-researcher to determine key words, sentences and passages that best illustrated Richard's journey. Comparison between each co-researcher's selection led to further refinement. Richard indicated that he felt "more prepared to be a MT because [he] had more forethought going into [the internship]". It helped him focus on the type of discussions he should have with his ST, and what he could look for in the lesson plans and planning. As a rookie MT, Richard clearly saw a benefit in participating in this project. He quickly became a legitimate peripheral participant and was transformed from a newcomer to a more reflective practitioner (Lave & Wenger, 1991). The PAR allowed Richard to co-create and co-experiment a training that was meaningful to him and had an impact on his mentoring skills and knowledge.

## Final year of physical education studies – Supporting physical education students’ professional development as a teacher

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Thursday, 20th June - 11:21: (Nexus 158) - Oral Paper

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*Dr. Kirsti Lauritsalo (University of Jyväskylä), Mr. Tommi Mäkinen (University of Jyväskylä), Dr. Anne Virtanen (University of Jyväskylä), Dr. Ulla Klemola (University of Jyväskylä), Prof. Päivi Tynjälä (University of Jyväskylä)*

In Finland, students in the physical education (PE) program carry out their pedagogical studies both as a part of their main subject (PE) and as a separate study module in the Department of Teacher Education during their final academic year (4th or 5th). Our paper focuses on this separate pedagogical study module, namely, ‘final year study module’ during which PE students are expected to gain a broad understanding of assessing their own pedagogical knowledge according to the current curriculum of the educational studies. The pedagogical practices of these studies have been developed over years (Klemola, 2009; Tynjälä et al., 2016) and they are based on the self-determination theory (Deci & Ryan, 2000) and the interaction model of Gordon (2004). The aim of this study was to examine the experiences of the PE students with the objectives of the curriculum and the developed pedagogical practices of the ‘final year study module’. Data were collected from PE students (N=148, n=107) via open-ended questions (e.g., *Please describe in your own words about your learnings during this ‘final year’*) in an online questionnaire at the end of the final year in 2016, 2017, and 2018, and content analysed. According to the preliminary findings, students learned a lot about themselves and about the PE teacher’s profession. The main themes that the students described were the development of their own self-knowledge, interaction skills, and understanding of the extent of a PE teacher’s work. In conclusion, this study shows that the learning experiences of the PE students in their final year are similar to the goals of the curriculum and the pedagogical practices organized by the teachers. Thus, the learned curriculum seems to be equivalent to the written and taught curriculum and we could suggest this kind of practices to be carried out wider in teacher education.

## Description and preliminary group insights of an innovative Physical Education teacher informal training program using Facebook

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Thursday, 20th June - 11:42: (Nexus 158) - Oral Paper

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*Dr. Georgios Gorozidis (University of Thessaly/ School of Physical Education and Sports Science), Dr. Yannis Tzioumakis (University of Thessaly/ School of Physical Education and Sports Science), Dr. Charalampos Krommidas (University of Thessaly/ School of Physical Education and Sports Science), Prof. Athanasios Papaioannou (University of Thessaly/ School of Physical Education and Sports Science)*

Traditional teacher training has been frequently criticized as inadequate and ineffective. On the other hand, informal learning such as professional learning communities (PLC) can be an effective alternative for in-service PE teachers' professional development. Unfortunately, such collaborative-interactive groups of PE teachers rarely exist. The purpose of the present study was the development of an informal PLC aiming to promote students' physical activity levels outside school, by enhancing PE teacher motivation and learning. We used Facebook as a vehicle to deliver/implement informal training, by creating the secret group "PE Teachers Collaboration Network (PE.T.Co.N.)". We further explored PE teachers' motivation for their sustained participation and active collaboration in the group. Based on Self-Determination theory (SDT), it was expected that this form of social learning, will satisfy teachers' autonomy, competence, and relatedness needs and will facilitate their intrinsic motivation and learning. Participants were 132 in-service PE teachers who responded voluntarily in our open invitation, distributed via Facebook and emails. The training included a structured set of 12 thematic units of two-week duration each (e.g., health benefits of PA, physical literacy, goal setting, enjoyment in PE, autonomy support in PE). Each unit comprised three posts from the administrators, in the form of prompts, which aimed at triggering discussions, collaboration and sharing best practices among members. At the end of each unit, administrators posted educational content (file with scientific information, hyperlinks, videos), and e-quizzes related to the topic discussed. Preliminary group insights revealed enhanced participatory dynamics in terms of interaction (views, reactions, comments-posts). After the first five units (out of 12) of the training, we recorded about 3400 completions of learning-posts, 1270 comments-posts, and about 6760 reactions (e.g., likes), to the 61 administrators' learning-posts. This evidence of PE teachers' active participation in the PLC might surmise that PE.T.Co.N. is a promising interactive innovative teacher professional development tool for informal training.

# **Motivation and Behavior**



# Through students' eyes: instructional strategies for a motivating learning climate in secondary school PE

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Thursday, 20th June - 11:00: (Nexus 241) - Oral Paper

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*Ms. Gwen Weeldenburg (Fontys School of Sport Studies), Dr. Lars Borghouts (Fontys School of Sports Studies), Dr. Menno Slingerland (Fontys School of Sports Studies), Dr. Steven Vos (Eindhoven University of Technology)*

## Background and purpose

Enhancing students' motivation towards physical activity in and outside the school setting is one of the main objectives for PE teachers. The Achievement Goal Theory (AGT; Nicholls, 1984) and Self Determination Theory (SDT; Deci & Ryan, 2000) argue that situational factors strongly affect students' motivation. Therefore, in every lesson, the PE teacher should aim to create and manage a learning environment that addresses the motivational demands of students. To attain deeper knowledge and a clearer perception of how the PE context can be better designed and tailored to the differential motivational demands of students, the present study aimed to identify instructional strategies that, according to students, impact their motivation in PE.

## Methods

Three focus group discussions (6-8 students) were held with 21 secondary school students (12-16 years). The focus group meetings were video-recorded. Based on a previous study (Weeldenburg et al., 2019), three focus group meetings per motivational profile were conducted. In order to identify preferred instructional strategies and to assess latent differences among the three motivational profiles, the TARGET framework (Ames, 1992) was used. This framework has proven to be a useful model for research into enhancing the motivational climate in PE (Braithwaite, Spray, & Warburton, 2011). Data was analyzed using the Framework Method (Ritchie & Spencer, 1994). Initial codes were constructed inductively and thereafter sorted into inductively emerging subcategories and categories.

## Results

As this is an ongoing research project, the results will be presented for the first time at AIESEP 2019.

## Conclusion

The results of this study will provide more insight into how the PE context can be better designed and tailored to the differential motivational demands of secondary school student, by informing the development of more effective instructional strategies and design principles.

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## Exploring physical education teachers' experiences of need-supportive and need-thwarting teaching behaviour through self-confrontation interviews: A critical incident analysis

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Thursday, 20th June - 11:21: (Nexus 241) - Oral Paper

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*Mr. Eishin Teraoka (University of Strathclyde), Dr. Farid Bardid (University of Strathclyde), Prof. David Kirk (University of Strathclyde)*

**Background and purpose:** Pedagogical research grounded in self-determination theory (Ryan & Deci, 2017) has shown the significance of need-supportive teaching in physical education as it relates to positive affective learning outcomes, whereas need-thwarting teaching produces less desirable outcomes. The purpose of the study is to explore physical education teachers' perspectives of need-supportive and need-thwarting teaching behaviour with self-confrontation interviews since few qualitative studies have been reported in English using this method.

**Methods:** The sample consists of eight physical education teachers from four different secondary schools. Teaching behaviour was videotaped in their regular lessons. The teachers wore a lapel microphone to capture their verbal interactions. We observed and filmed two lessons per teacher. Within three months after the lessons, the teachers will be asked about their practical need-supportive and need-thwarting teaching behaviour and concerns that occurred during the observed lessons while watching selected recorded video clips. Critical incidents were determined based on the statements of the 19 need-supportive and 16 need-thwarting teaching behaviours (Van den Berghe et al., 2016). Interview data will be analysed using a grounded theory approach, identifying themes and subthemes through open, axial and selective coding (Charmaz, 2006).

**Results:** Data analysis is currently in progress and results will be presented at the conference. We expect that the teachers will express their critical thoughts about what happened during the lessons. Furthermore, the findings will reveal how the personal (i.e., past experiences) and contextual factors (i.e., pupils' behaviour and activity) are influencing teachers' behaviour.

**Conclusions and implications:** The anticipated findings can inform physical education teachers in identifying and developing need-supportive teaching to promote affective learning. In addition, the use of the observed videos and self-confrontation interviews will contribute to improve our understanding of factors influencing teachers' behavioural responses and to inform the design of new continuing professional development programmes.

### References

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# **Coaching Strategies and Experiences**

# Effective Strategies for Developing and Operating a Coaching Clinic

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Thursday, 20th June - 11:00: (Nexus 242) - Oral Paper

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Dr. Timothy Baghurst (Oklahoma State University)

Coaching education is a very necessary component at all levels of the profession. However, many states, cities, and sporting governing bodies offer little professional development for coaches. As a consequence, coaches are often placed in situations for which they are unprepared. Hosting a coaching education clinic is time intensive and requires significant time planning for what might and what might not happen during the event. Yet, it can be very rewarding when attendees leave with new content knowledge and perhaps even different perspectives and opinions about their profession. Coaching education is needed, but if offered, it needs to be done well.

This presentation will provide a step-by-step guide that provides attendees with practical tips and strategies for hosting a successful coaching clinic. Using the experience accrued from hosting multiple events, this presentation will explain some of the successes and failures of these experiences. Topics to be covered include logo design, marketing and recruiting, securing speakers, the challenges of registration, the use of technology and media, and post-clinic evaluations. Attendees will leave with a chronological guide that will facilitate efforts to develop coaching education in their locale.

# Poster 1

# Characterization of the motivational climate with the TARGET framework in secondary school physical education contexts

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mr. David Larivière (University of Sherbrooke), Prof. Sylvie Beaudoin (Université de Sherbrooke), Prof. François Vandercleyen (University of Sherbrooke)*

## Introduction

Several authors have highlighted a decrease in students' motivation for physical education within the secondary school context (El-Sherif, 2016; Murillo Pardo et al., 2015). The motivational climate, a concept drawn from the achievement goals theory (Nicholls, 1984, 1989), is an important variable to consider when analyzing student motivation (Sarrazin, Tessier & Trouilloud, 2006). Based on this concept, Epstein (1989) designed a framework endorsing six teaching structures: Task, Authority, Recognition, Grouping, Evaluation and Time. However, there is a need to include teachers' perspective in studies on the TARGET framework to provide an overall portrait of what is happening within PHE settings (Braithwaite, Spray & Warburton, 2011). The purpose of this study is to characterize the motivational climate of four PHE settings using the TARGET framework.

## Methods

This study used a multiple case study design (Yin, 2018). Data were collected through systematic observation of PHE lessons (n = 14) of four groups of students (aged 13 to 15 years-old) and pre/post lesson semi-structured interviews (n = 28) with three PHE teachers. All lessons were videotaped to allow for delayed systematic observation with a tool based on the TARGET structures. Content analysis of the interviews was performed using a deductive approach tied to the TARGET framework. Data from teachers' perceptions were added to the data from systematic observations to get a full portrait of the motivational climate of each case.

## Results

Preliminary results show that elements from the initial planning and tasks outstand as important factors in establishing the motivational climate according to both data drawn from systematic observations and the PHE teachers' interviews. Findings raise the issue of the teacher-student relationship in creating a favorable motivational climate, a factor not taken into account in Epstein (1989) initial TARGET framework.

## Classroom Activity Break (CAB) in Elementary School: When to Use it and Which Behavioral Benefits are Obtained?

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. Nolwenn Chesnais (Univ Rennes), Prof. Geneviève Cabagno (Univ Rennes), Prof. Claudia Verret (Université du Québec)*

CAB program is an educational tool administered in primary classrooms to allow children to be more active. Many studies have shown their benefits (e.g. Mahar et al<sup>1</sup>, 2006), especially behavioral and cognitive ones. This pilot-study aims to experiment CAB in France and to analyze its effects on students' in-task and off-task behaviors, introducing a period effect.

A sample of 12 students (6 to 10 years) from 4 groups took part in a 2 X 2 crossover design which combined a classroom program variable (CAB vs usual instructional time) and a period variable (morning vs afternoon). To evaluate CAB's behavioral benefits, participants were videotaped during four sequences, on these four conditions. We measured individual percentage of time-on-task and motor time-off-task, for 10 minutes continuously, before and after each condition. Paired *t*-tests were used to compare mean percentages between those conditions.

We observed a significant effect ( $p < 0.01$ ) of CAB on in-task behaviors with a higher time-on-task after the CAB condition (86.9 %) compared to usual instructional time (61.1 %). Moreover, results indicated a higher post-time-on-task (91.6 %) compared to pre-time-on-task (78.5%;  $p < 0.05$ ) when CAB were in the afternoon. Finally, we observed a significant decrease of the mean percentage of motor time-off-task after the CAB (from 13.4% to 5.45%;  $p < 0.05$ ).

This study, based on an original observational methodology, supports the literature. CAB seem relevant regarding students' time-on-task. Further studies should be conducted on a larger sample and for a longer period of time to confirm these results.

Mahar, M. T., Murphy, S. K., Rowe, D. A., Golden, J., Shields, A. T., & Raedeke, T. D. (2006). Effects of a classroom-based program on physical activity and on-task behavior. *Medicine and Science in Sports and Exercise*, 38(12), 2086.

# Self-regulated learning strategies during self-controlled practice in physical education

Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

*Mr. Joop Duivenvoorden (Windesheim university of applied sciences), Dr. John Van Der Kamp (VU Amsterdam), Dr. Ivo Van Hilvoorde (Windesheim university of applied sciences), Prof. Geert Savelsbergh (VU Amsterdam)*

Self-regulated students autonomously improve motor skills because they cyclically plan, perform and evaluate practice (Zimmermann, 2002). Research shows that individual differences in the effectivity of self-regulated learning relate to differences in psychological processes like self-efficacy, motivation, goal setting and self-observation. These studies mainly used students' self-ratings, presuming accurate self-reflective skills. By contrast, we observed students' self-controlled practice behaviors to assesses how different self-regulated learning strategies relate to differences in both self-reported psychological processes and the accuracy of their perceived action capabilities (i.e., affordances).

Students (n=79; ages 12-14) practiced a novel aiming task in eight blocks of five trials. The task goal was to achieve success at the largest possible distance. Before practice, we measured accuracy of affordance perception, self-reported self-efficacy and motivation. During self-regulated practice, before each block students chose the distance to the target and indicated the expected success-score. After practice, goal orientation was assessed.

Perusal of practice distances and success-scores revealed that students employed different self-regulating strategies. They either chose distances based on previous distance (Distance-group, n=24), based on previous success-score (Score-group, n=29), or another or no strategy (Other-group, n=26). One way-ANOVA's showed no differences between groups in age, skill level, self-efficacy, motivation, goal setting and accuracy of affordance perception. During practice, the Distance-group underestimated expected success-scores while the Score-group and Other-group overestimated. The actual success-score decreased for Distance-group, but not for the Score-group and Other-group.

Self-regulated practice behaviors showed that students used different self-regulated learning strategies. According to Zimmerman's self-regulated learning model, the Score-group showed more effective self-regulation than the Distance-group as they monitored performance to adjust practice. Their performance overestimation and stable practice performance potentially benefit motivation (Almeida et al., 2017). The field of physical education could benefit from further research examining whether teacher-supported self-monitoring and evaluation can stimulate more effective self-regulated learning strategies.



## Physical education: A systematic review of research trends, hot topics and white spots

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. Louise Lindkvist (Umeå University, Department of Education, Umeå School of Sport Sciences), Prof. Ørnulf Seippel (Norwegian School of Sport Sciences), Dr. Josef Fahlén (Umeå University, Department of Education, Umeå School of Sport Sciences)*

Research in the area of physical education has increased significantly the past decades. In Sweden alone, some twenty doctoral dissertations were completed after the year 2000, compared to one the two previous decades. In order to develop a research agenda for contemporary needs in practice and research, this study will perform a systematic review of research trends 2009-2019 using quantitative and qualitative approaches.

The search was conducted through ERIC with the use of EBSCOhost, using the search term physical education (as a thesaurus). Terms as kindergarten, preschool and early childhood education was excluded since no formal physical education teaching occurs in those settings. In order to reduce the risk of including articles not connected to physical education as a school subject, we instructed EBSCOhost to search for articles in which the term physical education appeared in the abstract. Data consist of 2672 peer reviewed articles in English language journals published between the years 2009-2019. At the time of abstract submission deadline, data collection was initiated and some preliminary results will be presented at upcoming conference. All data analysis will be conducted using *R*, a statistical program suitable for text analyses (Seippel, 2018).

Findings, in whatever form they might appear, are key to an informed discussion about future research needs, and about potential mismatches between contemporary practice-based needs and current research designs. Since no systematic review of physical education didactics has been undertaken, such findings are needed and useful for a wide range of scientific and educational processes, which can stimulate higher quality research and influence the physical education teacher education and the professional development for health and physical education teachers.

### References

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## Meaningful Physical Education - Honouring Contextual Diversity

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mrs. Jodi Harding-Kuriger (University of Alberta), Dr. Douglas Gleddie (University of A), Dr. Lauren Sulz (University of Alberta)*

Many students have had miseducative experiences in physical education (PE) (Gleddie & Schaefer, 2014). These types of experiences may have stemmed from the toxic and hierarchical culture of some physical education programs: skilled vs. unskilled; boys vs. girls; fit vs. unfit; privileged vs. othered - all promoted through competition and individualism. Through the use of the Meaningful Physical Education (MPE) approach (Beni, Fletcher, & Ní Chróinín, 2017), our objective is to increase students educative experiences in PE (wanting MORE of the same) and reduce miseducative experiences (wanting NO more of the same) (Dewey, 1938). The MPE approach uses experiences that are enjoyable, challenging, communal, personal, and improve abilities in order to create meaningful learning for students: bridging physical education to a life-long love and joy for physical activity.

This project will extend the LAMPE (Learning About MPE) project's international research agenda to an Indigenous context. Research questions include: How does MPE, developed in a Western culture, work in an Indigenous community? Is the approach appropriate to use? How might MPE be adapted for differing contexts? Indigenous research ontology and epistemology are founded by relationships. The axiology and methodology maintain relational accountability (Wilson, 2008). This project will honor research as ceremony and be open to changing questions and methods based on the relationships built within the community. Researching *with* the members of the community will determine how the research project will benefit the whole community. Research questions, study design, participant selection, data collection, analysis, and the presentation of findings will be adjusted collaboratively with all participants to uphold the principle of reciprocity. Our Indigenous students represent a large portion of Canada's hopeful future. Choosing to co-compose research *with* Indigenous communities, enables collaborative highlighting of the intellectual, spiritual, emotional, and physical potential of these youth. Join me in creating a story of culturally affirming and meaningful PE experiences.

## Trends and age-related changes of physical activity among Portuguese adolescent girls from 2002 to 2014: Highlights from the Health Behaviour in School-aged Children study

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Prof. João Martins (Laboratório de Pedagogia, Faculdade de Motricidade Humana e UIDEF, Instituto de Educação, Universidade de Lisboa. Faculdade de Educação Física e Desporto, Universidade Lusófona de Humanidades e Tecnologias, Lisboa, Portugal.), Prof. Adilson Marques (Centro Interdisciplinar de Estudo da Performance Humana, Faculdade de Motricidade Humana, Universidade de Lisboa, Lisboa, Portugal. Instituto de Saúde Ambiental, Faculdade de Medicina, Universidade de Lisboa, Lisboa, Portugal.), Prof. Nuno Loureiro (Escola Superior de Educação, Instituto Politécnico de Beja, Beja, Portugal.), Prof. Francisco Carreiro da Costa (Faculdade de Educação Física e Desporto, Universidade Lusófona de Humanidades e Tecnologias.), Prof. José Diniz (Centro Interdisciplinar de Estudo da Performance Humana, Faculdade de Motricidade Humana, Universidade de Lisboa, Lisboa, Portugal. Instituto de Saúde Ambiental, Faculdade de Medicina, Universidade de Lisboa, Lisboa, Portugal.), Prof. Margarida Gaspar De Matos (Faculdade de Motricidade Humana, Universidade de Lisboa. Instituto de Saúde Ambiental, Faculdade de Medicina, Universidade de Lisboa, Lisboa, Portugal.)*

**Background:** Girls' physical activity (PA) levels are low and decline with age during adolescence years.<sup>1,2</sup> Further research is needed regarding the PA trends and age related changes when data from representative samples of adolescent girls and by involving several cohorts over a 10-year time period.<sup>2</sup> Therefore, this study sought to examine the trends of moderate-to-vigorous-intensity physical activity (MVPA) from 2002, 2006, 2010 and 2014 in a representative sample of Portuguese adolescent girls, and to investigate MVPA changes during adolescence in surveys of each year and by generation.

**Methods:** A nationally representative sample of 6018 girls between 11-13 years and 3838 girls between 15-17 years was drawn from the Health Behaviour in School-aged Children surveys in 2002, 2006, 2010 and 2014. A questionnaire was used to collect data of MVPA. Data was assessed with ANOVA, t-test, chi-square and chi-square test for trend.

**Results:** The percentage of 11-13 year-old girls reporting 60 minutes of daily MVPA was low and stable between 2002 (9.5%) and 2014 (11.1%) ( $p=0.214$ ), like for girls aged 15-17 years (2002=5.6%, 2014=5%,  $p=0.805$ ). The percentage of girls reporting 60 minutes MVPA decreased significantly among age groups in all year surveys. A significant decrease in correlation with age across the same generation of adolescents was also found.

**Conclusion:** The prevalence of Portuguese girls meeting the PA guidelines is low, decline with age and is stable from 2002 to 2014. These results suggest that public health campaigns and educational efforts to increase girls PA in adolescence years have not been very successful. Therefore, different strategies to prevent MVPA decline and promote MVPA of Portuguese girls are needed since childhood.

**Keywords:** exercise, gender, health behavior, youth, public health.

### References:

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## Student Perceptions of Autobiographical Narrative Inquiry & Dominant Narratives of Teacher Education

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. Lauren Hennig (McGill University), Dr. Lee Schaefer (McGill University), Dr. Douglas Gleddie (University of A)*

One of the main goals of PE is to increase student confidence, competence, and motivation to lead physically active lifestyles. Currently, a gap in culturally responsive and socially just forms of physical education (PE) that bring attention to racism, colonialism, sexism, heteronormativity, and other social issues requires greater acknowledgement from researchers. The purpose of this study was to understand (1) how PHETE students' experiences with autobiographical narrative inquiry help them to think about their identities and how they are implicated in socially constructing the dominant discourses shaping physical education, and (2) explore student reactions to reflexive pedagogical methods in preservice teacher education.

Academics have become divided into three distinct groups: those ignoring change, those resigned to change, and those embracing change (Tinning, 2000). Research has shown physical health education teacher education (PHETE) students tend to be sexist, elitist and unsympathetic towards social issues. Therefore, novel theoretical perspectives and resulting methodologies are required to make sense of these changes and what to do about them.

Four preservice teachers were recruited from a curriculum course in their PHETE program to participate in this study. Using narrative inquiry methodology, we came alongside students to explore their personal experience of engaging in autobiographical narrative inquiry. Three 1 hour-long conversations informed the creation of narrative accounts, which were later negotiated with participants. Finally, we laid these accounts side-by-side to explore areas of tension, commonality, and differences.

Our findings illustrate how positioning students as knowledge holders in teacher education may enrich and shape beginning PE teacher's capacity to teach in socially just ways. These conclusions will have significant applications in PHETE as well as the research community, regarding students as more than passive recipients of technical understandings. A larger institutional revision may be required to allow for these methodologies to achieve their intended outcomes.

## Investigating impacts of achievement goal orientations and perceived motivational climates on outcomes in Korean college physical activity classes

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mr. PARK JUNYOUNG (Kyungpook National University), Dr. Ansu Lee (Kyungpook National University)*

### -Background and purpose:

Regular physical activity can reduce the risk of developing chronic diseases and obesity, while modern sedentary lifestyles increase physical inactivity. Physical inactivity is one of the health risk factors across all ages, especially as the involvement of physical activities decreases with age. Physical education is perceived as an ideal area to encourage regular physical activity. However, most studies of physical education focus on elementary school students and teenagers. There is a lack of research into how university students should form a physical environment to become more active. Factors motivating students to continue to participate in physical activities after college are important. Achievement goal theory is one of the most prominent theories of motivation. Therefore, the purposes of this study were to investigate the relationships between the achievement goal orientations and perceived motivation climates in Korean college physical activity classes students.

### -Methods:

For this study, a questionnaire survey was conducted with 350 university students (male = 220 and female = 130) enrolled in university physical education classes whose mean age was 22.43 years old. The questionnaire used in this study had 5 parts composed of 6 items for personal characteristics, 12 items of the Task and Ego Orientation in Sport Questionnaire (TEOSQ, Duda & Nicholls, 1989), 12 items of the Perceived Motivational Climate in Sport Questionnaire (PMCSQ, Walling, Duda, & Chi, 1993), 12 items of scales for the intrinsic motivation inventory (IMI) and intrinsic satisfaction, and 3 items for the intention to continue exercise (Chatzisarantis, Biddle, and Meek, 1997). This questionnaire was translated into English by the author and a professional English translator. The data were collected during the physical education classes with the aid of their instructors in the middle of the autumn semester in 2018 upon consents from students after the purpose of the study had been explained fully to the professors in charge of the classes and students who also had been assured that the data would not be used for any other purposes than this study. For the collected data, the reliability analysis, exploratory factor analysis, correlation analysis, multiple regression analysis and hierarchical regression analysis were performed using SPSS 24.0.

### -Results:

First, the impact of achievement goal orientations of university students on the motivational climate was as follows: In the mastery climate, the task goal orientation ( $\beta=.555$ ,  $p<.05$ ) had a significant impact, with an explanatory power of 30.7% ( $F=76.928$ ,  $p<.05$ ). In the performance climate, the ego-goal orientation ( $\beta=.275$ ,  $p<.05$ ) had a positive impact while the task goal orientation ( $\beta=-.133$ ,  $p<.05$ ) had a negative effect, with an explanatory power of 9.6% ( $F=18.363$ ,  $p<.05$ ). Second, the impact of the achievement goal orientation of university students on intrinsic motivation was as follows: In the fun and effort, the task goal orientation ( $\beta=.536$ ,  $p<.05$ ) and the ego-goal orientation ( $\beta=.145$ ,  $p<.05$ ) had a significant positive impact, with an explanatory power of 30.3% ( $F=75.517$ ,  $p<.05$ ). In the competence, the task goal orientation ( $\beta=.283$ ,  $p<.05$ ) and ego-goal orientation ( $\beta=.212$ ,  $p<.05$ ) had a significant positive impact, with an explanatory power of 12.1% ( $F=23.823$ ,  $p<.05$ ). In the boredom, the task goal orientation ( $\beta=-.331$ ,  $p<.05$ ) had a significant negative impact, with an explanatory power of 11.1% ( $F=21.568$ ,  $p<.05$ ). Third, the impact of the motivational climate of university students on intrinsic motivation was as follows: In the fun and effort, the

mastery climate ( $\beta=.505$ ,  $p<.05$ ) had a significant positive impact, with an explanatory power of 27.3% ( $F=65.152$ ,  $p<.05$ ). In the competence, the mastery climate ( $\beta=.256$ ,  $p<.05$ ) had a significant positive impact, with an explanatory power of 6.4% ( $F=11.952$ ,  $p<.05$ ). In the boredom, the mastery climate ( $\beta=-.277$ ,  $p<.05$ ) had a significant negative impact while the performance climate ( $\beta=.371$ ,  $p<.05$ ) had a significant positive impact, with an explanatory power of 24.3% ( $F=55.620$ ,  $p<.05$ ). Fourth, in the impact of intrinsic motivation of university students on the intention to continue exercise, it was found that fun and efforts ( $\beta=.226$ ,  $p<.05$ ), and competence ( $\beta=.173$ ,  $p<.05$ ) had a significant positive impact on the intention to continue exercise, with an explanatory power of 13.6% ( $F=18.108$ ,  $p<.05$ ). Fifth, the relationship between the achievement goal orientation and the intention to continue exercise according to the motivational climate of university students is as follows: The mastery climate had a moderating effect on the impact of the achievement goal orientation on the intention to continue exercise. The mastery climate did not have a moderating effect on the impact of the ego-goal orientation on the intention to continue exercise. The performance climate did not have a moderating effect on the impact of the task goal orientation on the intention to continue exercise. The performance climate did not have a moderating effect on the impact of the ego-goal orientation on the intention to continue exercise. Therefore, these results verified that the impact of the task goal orientation on the intention to continue exercise was moderated by the mastery climate.

**-Conclusions:**

In conclusion, the results of this study show that the influence of task goal orientations on the intention to continue exercise is adjusted according to mastery climate and that task goal orientations and mastery climate promote students' interest in physical activity. In order to sustain students' participation in physical activities, the professor should try to form a task-mastery oriented class climate by taking into account not only the achievement goal orientations but also the learner's class climate together.

## **“Opening up for otherness” in Phys. Ed. at elementary school : The Reunion Island student reception about PE lessons**

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. Fanny Mung Ming Tik (Reunion Island University (FR), ICARE Laboratory), Prof. Nathalie Wallian (ESPE La Réunion, labo ICARE)*

At Reunion Island, the interpretation of otherness made by elementary school students is specific when considering the wide range of different cultures cohabiting there closely. Meanwhile, reading and understanding the precise elements of otherness provides enlightening perspectives for educating students for opening up for otherness. In fact, the intercultural competency is made of knowledge as well as of practices : the physical education lessons from foreign countries helps educating for other perspectives and for tolerance.

This study was based on a crossed video-based test where Reunion students (N = 200; 10-11 years old) were inquired about their reception of PE lessons from 5 other countries (respectively Madagascar, Japan, Guadeloupe, Mauritius and Mayotte). These videos were elaborated about authentic open-for-interpretation (but not representative ones) PE practices. The data collection was provided in standardized conditions (questionnaire 15 items; T = 20')(designs ; N = 500) so as to let reacting about PE practices from foreign school.

While expressing their reception of otherness, students revealed their own sensibilities, beliefs and expectations and formulated misunderstanding as well as personal feelings. Doing this way, they gave indices about perceived otherness and also showed resistances and tastes for foreign cultures. They also expressed their own fascination and/or repulsion about practices that inquired recursively their taken for granted worlds; one could reach their present preoccupations and ideals with regards to their own school conditions of life. This study showed that the video-based test method is an interesting way to make explicit the ways of understanding the otherness within the everyday PE practices. Recursively, it serves as a basis for questioning the foreign cultures related with the student expectations and interpretation potentialities. This helps developing the “opening for otherness posture” so as to prepare students to meet alien practices with pleasure and tolerance.

# The Impact of a Sport Education Tennis Season on College Students' Leisure Time Tennis practice

Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

*Mr. Hairui Liu (The School of Kinesiology, Auburn University), Ms. Jianqun Kou (Georgia State University/The Department of Mathematics and Statistics), Prof. Peter Hastie (Auburn University)*

## Background

Previous research has demonstrated that the Sport Education model can create a favorable learning climate in college-level physical education. Nonetheless, while one of the major goals of college physical education is to promote further participation, little is known with respect to this objective. The purpose of this study was to examine if a Sport Education based course in tennis could promote leisure time tennis play compared with a more traditional approach.

## Methods

Thirty-six university students (9 females, 27 males) from two tennis classes participated in this study. One class followed a traditional instruction style (skill-driven within 12 weeks, followed with 2-4 weeks class competition), while the second was based on the principles of Sport Education. Three surveys were used to measure students' motivational levels (motivation and PE teacher's autonomy, classmate autonomy, and planned behavior), while self-reported leisure time tennis play was also recorded. The survey asked participants to indicate how many times they had participated in at least 20 minutes of voluntary tennis play over the prior 16 weeks. One independent t-test fit with leisure time practice with the two classes was first conducted, followed by three multiple regression models predicting the three motivational measures onto self-reported tennis play.

## Results

Leisure time engagement showed the Sport Education students had greater tennis participation than their counterparts ( $4.11 \pm 1.45$  vs.  $2.72 \pm 1.90$  per/week;  $t(34) = 2.46$ ,  $p = .01$ ). The autonomy from the teacher, classmates, and interaction showed the model was significant ( $R^2 = 20.5$ ,  $p = .05$ ). Amotivation, external regulation, introjected regulation, identified regulation, integrated regulation, and intrinsic regulation were included in the motivation measurement. The motivation model shows there was no significant effect ( $F = .55$ ,  $p = .76$ ,  $R^2 = .12$ ). Intentions, attitudes, control, and thoughts & beliefs consisted of the planned behavior theory measurement. In this case, the results showed a significant effect ( $F = 3.99$ ,  $p = .01$ ,  $R^2 = .34$ ). Intentions ( $F = 6.52$ ,  $p = .01$ ) and control ( $F = 8.84$ ,  $p = .005$ ) were the significant contributors to this outcome.

**Conclusions:** Students who participated in a Sport Education season played tennis more often than their traditional instruction counterparts during the leisure time. This increased tennis activity in may partially be explained not only by the autonomy provided by the teacher but the intentions and control in the planned behavior. Motivation does not appear to have any significant impact on participation.



## Mixed Methods Case Study on Instructional Dynamic in Online Kinesiology Courses

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mr. Gi-cheol Kim (Georgia State University/Department of Kinesiology and Health), Dr. Rachel Gurvitch (Georgia State University/Department of Kinesiology and Health)*

### Background/Purpose

Affected by the inevitable trend of higher education, the field of Kinesiology has adopted online education in varied forms from a single course to a complete degree program. Despite the burgeoning practice, there is a scarce investigation on online education in Kinesiology, resulting in a narrow theoretical basement and no content-specific pedagogy. In this regard, the purpose of this study was to examine the instructional dynamic of online Kinesiology courses, in which teachers, students, and contents interact. In doing so, the study sought instructional alignment as a precursor of quality.

### Method

This study adopted multiple case study incorporating mixed methods to supply robust evidence and yield lucid description. As conceptual frameworks, Instructor-student alignment [Reeves, T. C. (2006). How do you know they are learning? The importance of alignment in higher education. *International Journal of Learning Technology*, 2(4), 294-309.] and the community of inquiry (CoI) model [Garrison, D. R., Anderson, T., & Archer, W. (1999). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The internet and higher education*, 2(2-3), 87-105.] were employed. Instructor-student alignment revealed critical factors for successful learning, and CoI identified three essential elements for an effective online student learning experience.

Participants were instructors (n=4) and students (n=62) in five online courses in the Kinesiology program in a southern university. Data were collected through semi-structured interviews on instructors, CoI survey [Arbaugh, J. B., Cleveland-Innes, M., Diaz, S. R., Garrison, D. R., Ice, P., Richardson, J. C., & Swan, K. P. (2008). Developing a community of inquiry instrument: Testing a measure of the Community of Inquiry framework using a multi-institutional sample. *The Internet and Higher Education*, 11(3), 133-136.] for students and instructors, course contents analyses and learning management system log information.

### Results

Data on the instruction side were analyzed and then converted into course profiles which were continuously compared to data on students' side (CoI survey and log information). Instructors focused on designing valid activities for better learning in the online environment, and their intent of online teaching turned out to be incoherent to students' experience. Both instructors and students depreciated the social aspect of online learning. Several factors affecting instructional decisions and educational experiences were outlined.

### Conclusions

Online instructors in Kinesiology relied on behaviorist pedagogy of distance education, and students' educational experience lacked social presence, consequently. Technology played a critical role in mediating the instructional dynamics.

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## How knowledge about student influence the work and the lessons planning of beginning physical education teachers?

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. Delphine Tremblay-Gagnon (Université de Montréal), Dr. Cecilia Borges (Université de Montréal), Dr. Maurice Tardif (Université de Montréal)*

For almost 30 years, researches on teachers' knowledge have been trying to create a knowledge base for teaching (Igersoll, Jenkins and Lux, 2014; Shulman, 1987). Among principles references in the field there is Shulman's works: whose categories influenced several generations of researchers. One of categories concerns students and their characteristics as learners. Although this category is considered as fundamental for teachers' work, it is not clearly defined in the literature. Shulman (1987) described it as a whole category of knowledge, but later, authors defined it as part of other categories such as pedagogical content knowledge (Cochran, DeRuiter and King, 1993; Jenkins and Lou Veal, 2002).

According to the literature, even student's though knowledge is central for teaching, in the early years of insertion, it seems that beginning PE teachers prioritize content knowledge to the detriment of student's learning and their relationship with them (Hayes, Capel, Katene and Cook, 2008). It's only after having acquired a certain stability in teaching that their concerns revolve around students and their learning (Marcon, 2010).

From a student-centered curriculum perspective (Québec Education Program, 2006) and considering that teachers works with, for and on students (Tardif, 2001): how does knowledge about students affect PE teacher's work? And more specifically, how it is reflected in their planning in the first five years in practice?

In this communication, we will present the case of five beginning PE teachers and their fourth semi-structured interview of a five years' longitudinal study. In this interview, participants were invited to share their knowledge about students and the way it affects their work. Data has been analyzed with Nvivo software in order to bring out some recurring themes and thus better understand the influence of knowledge about student in the planning of PE teachers. Results show that students are at the heart of their concerns and interactions and unlike what we found in literature, our data show that PE teachers are adapting their annual planning based on curriculum to students' needs.

## Theme instructional design in Teaching Games for Understanding on High School Student's Learning Outcomes

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mr. CHUAN-YAO KO (National Taiwan Normal University), Prof. Ching-Wei Chang (National Taiwan Normal University),  
Ms. HOI-LAM LO (National Taiwan Normal University)*

Teaching Games for Understanding (TGfU) is an efficient instructional model in Taiwanese schools. It is hardly to be implemented in Taiwanese secondary school due to multi-activities programs design. Therefore, the purpose of this study was to try out the theme instructional design (for example, “fast break” is the common theme of basketball, soccer, and handball) while implementing the TGfU model under the multi-activities programs framework. The participants were senior high school students (n=42) in New Taipei City. The TGfU model was implemented within 6 weeks (2 lessons per week, 1 lesson=50 minutes). The “Fast-break” was the common theme of teaching contents (basketball and soccer). In terms of data collection, it was based on the ARCS learning motivation scale and GPAI assessment for quantitative data. Conceptual mapping was used to understand the concept of fast break of students between basketball and soccer. Results showed that (1) there was significant difference of the learning motivation of students after they taught by the theme instructional design in TGfU; (2) students showed better appropriate decision making in terms of fast break both in basketball game play match and soccer game play match through GPAI assessment; (3) students made meaningful fast break games concept connection between basketball and soccer. Implication: Under the framework of the multi-activities program, it was still possible to implement TGfU model through the theme instructional design in senior high school. PE teachers could try the TGfU model under the established multi-activities curriculum framework through the professional development.

## Physical education learning assessment under the new curriculum framework in Taiwan: A case of professional learning community

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mr. Sheng-Shiang Chin (Department of Physical Education, National Taiwan Normal University), Prof. Ching-Wei Chang (Department of Physical Education, National Taiwan Normal University), Ms. LIU TI-CHIEH (Department of Physical Education, National Taiwan Normal University /)*

The 12-year curriculum is the latest curriculum framework in Taiwan. The core competencies and literacy concepts make outlines in the new health and physical education (HPE) curriculum. The alignment among PE curriculum, assessment and teaching is highly emphasized in order to develop students as problem-solvers in their real-life. Therefore, the assessment has become a crucial problematic issue for Taiwanese PE teachers while facing the new HPE curriculum guideline. A professional learning community(PLC), including 2 University Teachers (PETE) and 4 school PE teachers, was built to explore the teaching and assessment practices while implementing the Ball Games instructional modules at primary school. The Data were collected during the 8 regular meetings, observation of teaching practices and teachers self-reflection journals. Results showed: (1) A quadrant framework(x=simple to complex; y=) was set to analyze the learning focus and major concepts duo to multi-activities program and skill-centered teaching approach; (2) Multiple assessment tools could be used while lessons progressing, however, it should be aligned with curriculum and teaching framework to make coherent justifications; (3) PLC members, at the beginning, focused on additional concepts of learning assessment; (4) PLC members understood better the meaning of complex leaning and holistic approach to realize assessmentwhile facing the new HPE curriculum guideline. The implications were: (1) one understood better the difficulties of re-conceptualization of competencies-based education (the New PE curriculum framework) for PE teachers in Taiwan; (2) the assessment issue should be considered on PE teachers' professional development in alignment with teachers' curriculum concepts and teaching practices; (3) situational and holistic PE learning assessment tools had need to be developed.

**Keywords:** competency-based education, assessment, curriculum alignment

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## Trajectories of beginning teachers in physical and health education (PHE) in Quebec: identity transformation and construction of knowledge.

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. Anne-Sophie Aubin (University of Montreal), Dr. Cecilia Borges (Université de Montréal)*

Professional insertion is an important step linking initial training to the beginning of the career (Zeichner and Gore, 1990) and marked by the construction of knowledge (Martineau & Vallerand, 2005), professional socialization (Pike & Fletcher, 2014; Richards, Templin & Graber, 2014) as well as identity consolidation (Roux-Perez, 2004; 2006). Beginning physical and health education (PHE) teachers are called upon not only to become agents of change in promoting healthy lifestyles and physical activity (Armor, 2010; Ovens, 2017), but also to teach a subject comprising its own set of challenges, such as the specificity of their field, particular work conditions, misunderstanding as well as isolation lived at school from other teachers and school administrators (Blankenship & Coleman, 2009; Stroot & Ko, 2006). Therefore, it seems necessary to further investigate the trajectories of professional insertion of beginning teachers in PHE. In order to do this, we have chosen to investigate according to three dimensions: professional socialization, identity consolidation and construction of knowledge in both French and English schools. In this presentation, we present the theoretical foundations of our longitudinal study that takes place in Quebec. We present the trajectory design of Fournier-Plamondon and Racine-Saint-Jacques (2014), the model of construction and transformation of teachers' identity of Gohier, Anadón, Bouchard, Charbonneau and Chevrier (2001), as well as the knowledge construction process (Tardif & Lessard, 1999). The goal is to show the heuristic scope of these three concepts to understand the process of professional socialization of beginning PHE teachers. As a result, the analysis of these concepts points to the close relationship between teachers' trajectories, knowledge and their professional identity. They influence each other in a dynamic and evolutionary way. Our investigation is part of a five year longitudinal study that examines the career and knowledge development of beginning teachers throughout their professional insertion process. Thus, semi-directed interviews about professional insertion were conducted and subjected to a thematic analysis using QDA-Miner software. There is still data to be collected and analysed. Our preliminary results allow us to establish different trajectory profiles for physical education teachers during their first years in the profession.

## Assessment of Perceived Physical Self-Concept among University Students at Different Levels of Body Mass Index

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Dr. Varghese Antony (Physical Education Department, King Fahd University of Petroleum and Minerals), Dr. Kaukab Azeem  
(Physical Education Department, King Fahd University of Petroleum and Minerals)*

Physical self-concept is defined as self-perceptions about one's physical self (Marsh, Martin & Jackson, 2010) and considered as a significant antecedent of motivation, behavioral engagement, and mental health outcomes in exercise settings (Craven & Marsh, 2008; Marsh, Papaioannou, Theodorakis, 2006). The objective of this study was to assess and compare physical self-concept of university students at different levels of body mass index (BMI). Total of 140 undergraduate students  $M_{age} 19 \pm 0.70$  years randomly categorized into underweight  $<18.5 \text{ kg/m}^2$  [ $n=37$ : 26.4%]; normal-weight  $18.5\text{-}24.9 \text{ kg/m}^2$  [ $n=31$ : 22.1%]; obese  $\geq 30.00 \text{ kg/m}^2$  [ $n=37$ : 26.4%] and obese class III  $\geq 40.00 \text{ kg/m}^2$  [ $n=35$ : 25%]. Physical self-concept measured using (PSDQ-S; Marsh, Martin and Jackson, 2010). ANOVA revealed highly significant difference among BMI categories on all the factors of perceived physical self-concept except, health factor ( $p = 0.589$ ). The post-hoc comparison (with Bonferroni correction) showed that obese-III participants had significantly lower scores on the factors compared to their normal-weight peers. Obese participants reported significantly lower scores on the factors coordination ( $p < 0.001$ ), physical activity ( $p < 0.05$ ), body fat ( $p < 0.001$ ), sports competence ( $p < 0.01$ ), appearance ( $p < 0.001$ ), flexibility ( $p < 0.001$ ), endurance ( $p < 0.001$ ), global self-esteem ( $p < 0.001$ ), and global physical self-concept ( $p < 0.001$ ) than their normal-weight peers. Underweight participants reported significantly lower scores on the factors physical activity ( $p < 0.001$ ), sports competence ( $p < 0.05$ ), and strength ( $p < 0.05$ ) than their normal-weight peers. The established notion is that an obese or underweight person lacks vigor, fitness and be more prone to diseases, which are reflected on the PSDQ-S factors. Study concluded that obese category students were having poor self-concept. Normal-weight students perceived higher physical self-concept and global self-esteem than obese and underweight students. Global esteem is a good indicator for better physical self-concept.

## **Descriptive and comparative analysis of the anthropometric profile of juvenile triathletes of the “Hermanos Enderica Salgado” Training Club**

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Prof. Christian Freire Reyes (Universidad Politécnica Salesiana)*

The following research presents a cineanthropometric analysis of juvenile triathletes from the “Hermanos Enderica Salgado” Training Club, whose objective was to analyze the anthropometric profile of the sample and compare the results obtained with international reference models. The main problem in the stages of initiation and sports specialization, is that athletes and coaches do not know for sure if they have the ideal anthropometric profile for the practice of triathlon. This study involved 11 athletes with an average age of  $14 \pm 1.4$  years, belonging to the “Hermanos Enderica Salgado” Training Club. To determine the somatotype the methodology proposed by Heath & Carter was applied, to calculate the values of body composition the formulas proposed by: Faulkner for the adipose mass, Lee for the skeletal muscle mass, Rocha for the bone mass and the for the residual mass the following equation: total body weight less the sum of the other components and for the determination of the proportionality indexes equations guaranteed by the ISAK. Regarding the somatotype, the following results were obtained: Endo  $2.7 \pm 0.8$ ; Meso  $3.9 \pm 1$ ; Ecto  $3.3 \pm 1$ ; In terms of body composition, the following evaluations were obtained; MA  $13.7 \pm 3.5\%$ ; MME  $51 \pm 1.5\%$ ; MO  $18.9 \pm 2.1\%$  and MR  $16.4 \pm 2.4\%$  and, according to the proportionality, no athlete presents the optimal diagnoses as a whole recommended for the practice of triathlon. According to the data obtained in the present investigation, it is concluded that no athlete has the ideal anthropometric profile for the practice of triathlon, but there is a 54.5% (6 triathletes) that could resemble a reference model, due to that the average age of this sample is 13.8 years.

Keywords: Triathlon, cineanthropometry, anthropometric profile.



## Latinx Teacher Candidate's Perceptions about Caring Student-Teacher Relationships

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Dr. Tanjian Liang (Central Washington University), Dr. Melissa Parker (University of Limerick)*

**Background and Purpose:** An increasing number of studies on caring relationships in teaching and learning contexts demonstrate the importance of student-teacher relationships (Eisenbach, 2016; Knoppers & Doodewaard, 2018; Newcomer, 2018; Owusu-Ansah & Kyei-Blankson, 2016). Physical education teachers have been challenged by the teaching multi-ethnic populations (Knoppers & Doodewaard, 2018) and educational research has revealed the power of care in addressing student needs with diverse backgrounds (Alder, 2002; Garza, 2009; Noddings, 2012). Thus, the exploration of culturally responsive caring student-teacher relationships for Latinx students must be considered during student teaching (Newcomer, 2018). Therefore, the purpose of this study was to explore one Latina teacher candidate's perceptions of student-teacher caring relationships. One research question guided this study: How did a Latinx teacher candidate perceive caring student-teacher relationships?

**Methods:** The participant for this case study was one Latinx female physical education student teacher candidate. Data sources included: semi-structured interviews, field notes, artifacts, and informal conversational interviews (Patton, 2015). Data were analyzed using open and axial coding (Corbin & Strauss, 2008). Trustworthiness was established through data triangulation, peer review, and member checks.

**Results:** Findings indicated two themes regarding teacher candidate's perceptions: 1) emotional-support caring relationships, and 2) pedagogical-support caring relationships. Emotional-support caring relationships represented recognizing students as individuals and portraying positive personalities. Descriptive lesson planning and caring learning environment characterize pedagogical-support caring relationships.

**Conclusions and Implications:** Findings suggested that the Latinx student teacher candidate possessed a "positive attitude" for developing emotional-support through caring relationships and met the needs of Latinx students (Garza & Huerta, 2014). On the other hand, the pedagogical aspect of caring relationships, such as descriptive planning, satisfied Noddings' (1992) advocacy of teachers' planning for caring. Future research may focus on determining how teacher education programs teach culturally responsive caring relationships.

## How can we teach students with a disability in regular physical education? The experiences of a lecture in higher education in Taiwan

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Prof. Ming-Sheng Tseng (National Taiwan Normal University), Dr. Feng-Min Wei (National Taiwan Normal University)*

Adapted physical education (APE) has been advocated and supported by the Taiwan government since 1993, indicating that it is a core concern in the agenda of improving the quality of physical education for students with all capabilities. However, a recent national survey of school physical education (PE) showed that the problems of the sufficient number of teaching force as well as the adequate teaching capability of in-service teachers still remain unsolved. In this article, we try to argue that the self-narrative of professionals' practical knowledge of teaching students with disabilities might be useful and helpful for in-service teachers to select the appropriate ones corresponding to the problematic situations they face and learn how to teach and interact with students with disabilities in a regular PE setting. This paper aims to describe the practical knowledge from the first author who had taught one female student with a visual impairment (VI) in his large folk dance course for several semesters. The shared practical knowledge for teaching a student with a VI in a regular PE class can be synthesized as follows: (1) utilizing verbal cues carefully; (2) strengthening auditory feedback; (3) reinforcing the avenues to tactile sense; (4) nurturing kinesthetic awareness; (5) arranging appropriate position in space; (6) creating opportunities to interact with peers; (7) designing alternative learning plan if necessary; (8) developing professional strategies and skills for in-depth learning. This paper concludes that the practical knowledge used may facilitate the student's learning outcomes in regular PE context and make PE in higher education more inclusive. More research is called for to expand the potential application of practical knowledge collected from more professionals with their extensive APE experiences for effective professional development for PE teachers.

## Risk and safety management in physical education: A critical discourse analysis

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. Lise Porsanger (The Norwegian University of Science and Technology)*

There are few studies examining safety management in physical education (PE) in Norway and, internationally, few seem to apply a discourse analysis of regulative texts. The purpose of this study is to examine how risk and safety management in PE is constructed in selected regulative documents.

### **Methods**

This ongoing study is designed as a qualitative document analysis (Bowen, 2009) and has applied Fairclough's (1992, 2013) critical discourse analysis (CDA). The study has combined a linguistic and a contextual analysis of language in four regulative documents governing primary and secondary schools in Norway. Their formal status, intertextuality and relevance for the research question were criteria for selection, and the documents are: 1) the Education Act (1998), 2) the Regulations Pursuant to the Education Act (2006), 3) the Curriculum for Physical Education (KRO1-04) (The Norwegian Directorate for Education and Training [Udir], 2015) and 4) the circular Proper Swimming- and Rescue Training in Primary and Lower Secondary Education Udir-1-2008 (Udir, 2018; my translation).

### **Results**

The preliminary analysis indicates that the texts have an ability to appear as neutral and imperative. PE teachers are not promoted as active subjects and it might be a sign of loss of jurisdiction. The regulative discourse seems to gain traction. In addition, the texts also draw on conflicting discourses which might put pressure on teachers.

### **Conclusion**

The CDA seem to reveal an emerging regulative discourse which may create new relations in the field and challenge PE teachers' autonomy and position. More research is needed to examine regulation with a critical lens and comparative studies are relevant.

## BekoAkt (Motional exercises for cognitive activation)

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Prof. Stefan Voll (University of Bamberg)*

### A research and application project

#### **Introduction:**

The connection of motional exercises and cognitive capacity has been frequently explored in the last years. However there are hardly any reliable findings for the setting “High Schools”.

#### **Thesis:**

A short daily neurological-based moving unit in sitting lessons has for youths a positive influence on their executive cognitive functions, such as concentration or perceptive faculty.

#### **Method:**

Due to this question, a concept of motoric exercises based on neuroscientific research results has been developed in this study. These exercises have demonstrably a positive impact on the working memory. These have been implemented at high schools in Bavaria in the days when no physical education was on the timetable.

In a pre-post-design the corresponding parameter were measured by using the d2-R-concentration test and the number connection test (ZVT) at the beginning, after six weeks and at the end of the 12-week intervention term. At the post-test, an additional measurement took place each one and two hours after the carried exercises.

#### **Results:**

- The growth rate of the intervention group compared to the control group was recognizable but not significant.
- The intervention group quickly achieved a higher degree of concentration compared to the control group
- These high results were clearly present in the intervention group one and two hours after the exercises, too.

#### **Discussion and outlook:**

Future research will have to investigate the efficiency of certain neurologically orientated exercises even stronger to make validated and reliable statements about the effect on the executive abilities in the setting of High Schools.

#### **Literacy:**

Schmutzler, T. (2018) BekaAkt (Bewegung zur kognitiven Aktivierung). Unveröffentlichte Dissertation: Bamberg.

Ratey, J. J.; Loehr, J. E. (2011). The positive impact of physical activity on cognition during adulthood: a review on underlying mechanisms, evidence and recommendations. In: Review Neuroscience Vol 22(2), S. 171-185.

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## School-based Physical Activity Interventions in Québec Primary School: Study Protocol of a Longitudinal Research

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Prof. Sylvain Turcotte (Université de Sherbrooke), Prof. Félix Berrigan (Université de Sherbrooke), Prof. Sylvie Beaudoin (Université de Sherbrooke), Prof. Tegwen Gadais (Université du Québec à Montréal)*

The “*On the move, at school!*” measure has been implemented in the province of Québec for the last two years to offer a variety of interventions targeting youth physical activity. Its objective is to support school teams undertaking a shift in practices, both at the organization and intervention levels, so that all students engage in physical activity for at least 60 minutes every school day. At the moment, nearly 550 schools are implementing this new measure, which represents 32% of all primary schools in Québec. These 60 minutes of daily physical activity are added to the weekly scheduled 120 minutes by the Physical Education and Health (PEH) program. In Québec, PEH teachers are experts in motor skills development and healthy lifestyle promotion, making them the main leaders to implement that measure. As such, their mandates consist of ensuring the project implementation, and supporting school teams promoting physical activity among students. The purpose of this paper is to present the study protocol of a five-year research project (2018-2023) to document the process of implementation in selected primary schools ( $n = 20$ ). Based on the theoretical assumptions arising from the analysis of implantation (Champagne et al., 2011) and of the ecological approach to human development (Bronfenbrenner, 1977), our methodological approach aims to characterize both the analyses of the implementation and sustainability phases of this governmental measure. Methods consist of: a) semi-structured interviews with school stakeholders; b) focus groups with the same stakeholders, and students aged 11 to 12 years and c) accelerometer data (timing, intensity and frequency) of physical activity each child engaged in across a typical school week (five consecutive school days). Based on that study protocol, important questions related to the implementation of school-based physical activity interventions may arise.

## Using concept maps to assess physical education teacher education students' learning

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Dr. Manolis Adamakis (University College Cork), Dr. Aspasia Dania (National and Kapodistrian University of Athens), Dr. Irene Kossyva (National and Kapodistrian University of Athens), Prof. Konstantinos Karteroliotis (National and Kapodistrian University of Athens)*

**Background:** Within university settings, students' ability for knowledge representation and (re)organization is an essential part of their professional learning and development. In line with constructivist theories of learning, Concept Mapping (CM) can provide a useful tool for graphically representing personal and course-specific understandings, allowing already acquired knowledge to become visible and explicit. The purpose of this study was to report on the use of CM as one of the techniques employed to enhance undergraduate students' learning within a Physical Education Teacher Education (PETE) course. **Method:** Participants were forty eight third-year PETE students attending a compulsory course entitled "Sport Pedagogy and Practicum in primary education" at the University of Athens, Greece. The course comprised of lectures, microteaching exercises and primary Physical Education (PE) practicum. During the last lecture, students were introduced to the CM method and were given half an hour to diagrammatically depict their understanding of the factors that influence the quality of primary school PE teaching. According to guidelines given in relevant literature, the gross morphology of students' diagrams was qualitatively analyzed and their knowledge structures were classified as spoke, chain and network, indicating novice, strategic and complex learning respectively. **Results:** Results indicated that students had difficulty in constructing diagrams and delineating connections between concepts. Chain diagrams were the most prevalent types of map. Complementary spoke structures were often connected to certain concepts in the chain sequence, without though being linked to others. **Conclusions and Implications:** The evaluation of concept maps highlighted differences in PETE students' arrangement of knowledge concerning quality PE teaching. The dominance of chain knowledge structures holds implications for PETE pedagogies, since it is indicative of the predominant, non-interactive mode of university lecturing. Since CM provides an ephemeral representation of students' thinking patterns, additional instructional strategies are needed to appreciate the extent of their conceptual learning.

## How the practicum contributes to develop student teachers' self-efficacy perception in physical education?

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Prof. François Vanderclayen (University of Sherbrooke), Mr. Salem Amamou (University of Sherbrooke), Prof. Jean-François Desbiens (University of Sherbrooke)*

Practicum has become an indisputable part in the majority of physical education teacher education (PETE) programs. However, the development of competencies and the impact of the practicum on student teachers' learning needs to be better documented (Desbiens et al., 2013). Supervised practicum would allow student teachers to develop a high perception of « self-efficacy » (Androzzi, 2011) about their ability to teach physical and health education (PHE) (Amamou et al., 2017). As mentors, cooperating teachers (CT) play a potentially crucial role in the professional development of student teachers (Clarke, Triggs, & Nielsen, 2014), including the development of self-efficacy, particularly in physical education (Ballinger & Bishop, 2011).

The goals aim to: 1) Measure the evolution of student teachers' self-efficacy about four professional competencies related to the act of teaching (programming, intervention, evaluation and supervision); 2) Identify the influence of cooperating teachers on student teachers' self-efficacy evolution.

About research methods, we submitted a standardized and validated paper questionnaire to more than 300 student teachers in PHE. Participants were in the third or fourth year of their PETE program (full time practicum with complete pupil responsibility) and came from four different academic institutions in Quebec (UQAM, UQTR, UdeM et UdeS). The data were analyzed from factorial analysis, exploratory and quasi-confirmatory.

Preliminary results show a trend towards an evolution of student teachers' self-efficacy over the course of the practicum. According to previous studies (Vanderclayen et al., 2012), our results also indicate a trend to a directive kind of support from the cooperating teachers perceived by student teachers.

In conclusion, this research insists on the importance of essential role of cooperating teachers to improve the student teachers' self-efficacy and the necessary resources to reach there. It questions besides the adequacy between the style of supervision from the cooperating teachers and the profile of student teachers.

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# Analysis of physical activity at work of university employees by accelerometry

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mr. Gilles Dubru (Université de Liège), Prof. Marc Cloes (University of Liege), Mr. Julien Mottard (Université de Liège)*

## Background and purpose

It is commonly accepted that physical activity (PA) improves health and well-being. At work, the PA benefits go not only to the employees but also to the employers (Ecorys, 2017). Although researchers are fond of physical activity data, the literature appears to be relatively poor in terms of PA rates for university staff, even if it is their own professional context. In the perspective of changing the habits of the employees of the University of Liège (ULiège), we analyzed the profile of their activity/physical inactivity by means of a questionnaire (Dubru et al., 2018). The purposes of the present study consisted to supplement the previous data using accelerometry and to prepare recommendations for the authorities of the institution.

## Methods

Accelerometers Actigraph GT3X+ were distributed to 47 subjects working at the ULiège selected through a stratified sampling respecting the gender, age, and location of the workplace. Accelerometers were worn on the right hip for 7 days, day and night as recommended by the literature (Migueles et al., 2017). Troiano et al. (2007)'s epochs and cut-points were chosen.

## Results

Subjects walked an average of 8,069 ( $\pm 6463$ ) steps/day, with no difference by gender. According the age, a significant difference appeared between <39 and 59> categories. Based on the Tudor-Lock and Basset classification system (2004), only 11 participants can be considered physically active (23%).  $p < .05$ . Per week, employees spent 1918 min ( $\pm 564$ ) in low PA, 223 min ( $\pm 165$ ) in moderate PA, and 23 min ( $\pm 56$ ) in vigorous PA. The data confirm the poor PA level identified previously by questionnaires.

## Conclusion and implications

Despite a large disparity in the individual results, it would be urgent to implement an institutional policy promoting physical activity at the ULiège. Such project would be an interesting challenge for the PE department. Practical recommendations are proposed.



## Physical and sports activities during childhood - narratives of future teachers

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Prof. Rui Neves (University of Aveiro)*

The quantity and quality of personal experiences of physical and sporting activities (PSA) during childhood are relevant to Physical Education (PE) attitudes, beliefs and practices for future teachers. The nature of these experiences helps to develop future skills as teachers. Thus, we intend to analyze how future teachers refer to their childhood PSA practices and how the PE context is referred to. Through a questionnaire applied over 6 academic years (2012/2013 to 2017/2018) we surveyed 241 students of the Basic Education Degree from the University of Aveiro (Portugal), answering the question “Characterize your PSA practices during childhood”. The data were treated in terms of descriptive statistics and content analysis. Globally, more than half of the students (128 - 53.1%) makes references to PE (classes, activities, regularity, teacher) with the others not doing so (113 - 46.9%). There is evidence of inconsistency in the references to experiences of PE, with oscillations and variation, with a maximum value of 72.7% in 2013/2014 and 25% in 2015/2016. There is a strong expression of the references that links to PSA, highlighting the more organized and structured experiences at the level of practices in clubs and associations (eg swimming, basketball, soccer). These references are associated with clearer and more objective descriptions (regularity, objectives, conditions, number of training) than those that refer to PE. In parallel, there are also the experiences of informal practices shared with family, friends and colleagues (eg, hiking, cycling, playing football). The PSAs appear as having participated, expressively, in the childhood experiences of future teachers, in different ways and practices. Although a greater weight of references to PSA practices in the context of PE in school is identified, the PSAs appear in the most valued clubs and associations.

# A Systematic Literature Review of the Socialization of Beginning Physical Education Teachers in South Korea

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. Hyeyeon Kim (Seoul National University), Mr. UNJONG LEE (Seoul National University), Ms. Kirim Lee (Seoul National University)*

Beginning physical education teachers internalize and adapt various behaviors, norms, beliefs, and knowledge while entering the teaching profession. In this process, teachers are subject to constant change as they experience various difficulties such as reality shock (Veenman, 1984).

**Purpose:** The purpose of this study was to analyze the difficulties and adaptation strategies of the beginning physical education teachers adapting to the teaching profession in order to comprehensively understand the introduction process of the beginning physical education teachers in South Korea, and to suggest future research directions and tasks.

**Method:** Korean journal articles published from 2000 to 2018 were collected using systematic literature review methodology. At the keyword level 193 papers were selected, and at the title and abstract level, 38 papers were included. The final papers were selected by excluding the papers not related to the research purpose. Vonk(1995)'s research was used to develop a framework for systematically analyzing the collected studies.

**Result:** The results of this study were as follows: First, the most difficult factor in the adaptation process of the beginning physical education teachers were cultural difficulties. Especially, peers and students were the main factors that most affected the teacher's personal, professional and cultural dimension. Second, teachers were experiencing individual levels of difficulties due to the role conflict and the role confusion. To overcome these difficulties, the beginning physical education teachers were struggling alone to develop their professionalism. Thirdly, the solutions proposed by the studies were centered on the individual and cultural dimensions yet neglected social and political dimensions.

**Conclusion:** The beginning physical education teachers who are full of enthusiasm need professional support such as mentoring programs so that they can use adaptation strategies rather than suffering from isolation. In addition, future studies should be directed toward examining induction processes by considering social and political dimensions.

## Measuring Pedagogical Quality in Sports Training Using the Classroom Assessment Scoring System

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. Kathrin Kohake (Universität Hamburg), Ms. Jessica Maier (Universität Hamburg), Prof. Alfred Richartz (Universität Hamburg)*

By improving children's performance as well as facilitating motivation for a lifelong physical activity, sports' training faces multiple pedagogical challenges and demands. This poster is part of a larger research project that aims at improving pedagogical quality in sports training by evaluating a six-month online coaching program. The coaching is based on the Classroom Assessment Scoring System (CLASS; Pianta, La Paro, & Hamre, 2008), which is a validated instrument for classroom observations. Since many indicators of effective teaching also apply for sports training or can easily be adapted to it, the CLASS is an adequate instrument for observations in the field of physical activity. CLASS follows a hierarchical structure: three domains contain ten dimensions, each defined by three to five indicators, which in turn can be observed in multiple behaviour markers. Thereby, the CLASS gives valuable information about effective teaching behaviour and can be used as a research based framework for the further education of sports coaches. However, it is still questionable if observation scores of effective teaching vary across observation cycles (Patrick & Mantzicopoulos, 2016). Therefore, the aim of this presentation is to examine inter-cycle stability of CLASS scores (assessed on a 7-point scale) within training sessions regarding the dimension and the domain level. For each participating coach ( $n=30$ ), three 20-minute sequences of different training phases of one training session were rated by two independent, certified CLASS-observers. Correlations between cycles on the within-coach level and comparisons between male and female coaches as well as different types of sports will be presented.

Patrick, H., & Mantzicopoulos, P. (2016). Is effective teaching stable? *The Journal of Experimental Education*, 84(1), 23-47.

Pianta, R.C., La Paro, K., & Hamre, B.K. (2008). *Classroom Assessment Scoring System*. Manual K-3. Baltimore: Paul H. Brookes.

## Choosing Teaching Today in Quebec: An Analysis of the Professional Life Histories of Physical Education Teachers

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Dr. Maurice Tardif (Université de Montréal), Dr. Cecilia Borges (Université de Montréal), Ms. Anne-Sophie Aubin (Université de Montréal)*

Based on their life stories and experiences (Wrench & Garret, 2012; Armour, 2006; Armour & Jones, 1998;), this communication presents the underlying reasons affecting physical education (PE) teachers' career choices. Some studies have tried to understand why students choose this career path, especially when considering the new realities of physical and health education and the work conditions in this field. Psychological (Berger & d'Ascoli, 2011; Kyriacou & Coulthard, 2000) and sociological perspectives (Tardif, 2013; Deauvieu, 2005; Maroy, 2002; Lortie, 2002; Schutz, Crowder & White, 2001) can be used to untangle the complexity of this subject. Indeed, several factors such as personal and subjective motivations, biological history, interpersonal influences as well as social and macro-social factors influence the teaching career choice. With these in mind, our communication seeks to explain: 1) the foundational motives that direct the career choices of PE teachers, as well as their nature and timing, and 2) the main factors that influence these career choices. Our investigation is part of a five year longitudinal study that examines the career and knowledge development of beginning teachers throughout their professional insertion process. Fifteen PE teachers from elementary and high school were interviewed. A semi-directed interview, that covered the career choices, initial training and professional insertion of the teachers, was subjected to a thematic analysis using the QDA-Miner analysis software. Results show that the professional insertion process was mostly characterized by a clash between the initial motivations of the teacher's career choice and the reality of their teaching and working conditions. Also, data have allowed us to establish that teachers want to teach even if it requires sacrificing some of their initial motivations. Finally, our findings corroborate those present in the scientific literature (Jobin & Tardif, 2012; Bizet, Lemoyne, Larouche, Trudeau, 2010; O'Sullivan, 2006): despite the changes that currently affect the teaching profession, the teachers' relationship with their pupils remains fundamental to their career choices. As well, the main factors of influence that guide these choices are similar to those of past generations.

## Supporting health and physical education teachers in the appropriation of a problem-solving approach

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mr. David Bezeau (Université de Sherbrooke), Prof. Sylvain Turcotte (Université de Sherbrooke), Prof. Sylvie Beaudoin (Université de Sherbrooke), Prof. Johanne Grenier (Université du Québec à Montréal)*

### Introduction

Professional development of teachers is essential since they work in a field where knowledge is constantly evolving and challenges are renewed every day. In health and physical education (HPE), professional development seems to be a good solution to optimize the practices of teachers (Turcotte, 2010). Despite the potential benefits of this type of training on their professional development, criticisms by HPE teachers indicate that in-service training is often too short, too theoretical and too far from their real needs (Armor and Yelling, 2007). The objectives of this presentation are to describe: 1) the degree of appropriation, by two HPE teachers, of an integrative problem-solving approach aimed at optimizing their assessment practices in health education; 2) the facilitators and barriers of this appropriation process.

### Methods

In this action research, data were collected between January and December 2017 through collective interviews and logbooks. Data collected were analysed through an inductive strategy (Creswell, 2014). The problem-solving approach put in place included seven steps: 1) relation; 2) clarification; 3) negotiation; 4) discussion; 5) action; 6) individual reflection and 7) assessment.

### Results

Five key findings have emerged: 1) main strength of this approach is to offer time for common reflection; 2) main element to improve this approach is to work on smaller problems in the beginning; 3) appropriation of the problem-solving approach is mainly facilitated by releases; 4) strategies such as indicators of success and animation guides improve participants' autonomy in the process and 5) degree of ownership of the problem-solving approach by the participants evolves during the study.

### Conclusion

It is necessary to put in place professional development schemes that offer real support to teachers because it seems effective. Furthermore, changing practices is a process that requires time and effort, two needs that traditional professional development cannot meet.

## Using a Community of Practice to infuse Social and Emotional Learning into Elementary Physical Education

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. Kelsey Higginson (The Ohio State University), Dr. Sue Sutherland (The Ohio State University)*

When new standards are developed for teachers, there is often little support during the initial implementation (Valli & Buese, 2007). The state of Ohio is developing K-12 learning standards for social and emotional learning (SEL) that would apply in every subject. Teachers do not yet have much training or background in how to meet these new standards in their classes. Additionally, professional development opportunities in schools are often not seen as helpful to physical education teachers (Armour & Yelling, 2004). One solution is to create professional development specifically for physical education teachers that also provides ongoing support. The purpose of this project is to investigate how a community of practice (CoP) around SEL in physical education impacts teachers, their teaching, and their students. This qualitative project involves a group of elementary physical education teachers from one district who already meet informally. Teachers will be interviewed, their classes observed, and their students assessed for baseline knowledge and practices. Teachers will then participate in a CoP around including SEL in their physical education classes. Additionally, teachers' practice will be observed along with ongoing informal interviews and journal prompts to gain insight into the impact of the CoP on teacher's knowledge and practice.

## Outdoor education in Quebec High Schools: an update

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Prof. Tegwen Gadais (University of Quebec in Montreal), Prof. Johanne Grenier (Université du Québec à Montréal), Mr. Patrick Daigle (UQAM)*

**Background and purpose:** In response to the lack of contact between youth and nature or environment, outdoor activities are expanding widely in the province of Quebec. However, these activities are not easy to organize due to the high financial costs and the complexity of logistics. The Ministry of Recreation and Sports Education (MRSE) of Quebec is aware of this issue and its consequences for youth in the future. The government is also aware about the potential benefits of outdoor activities as an intervention. The aim of this study is to establish a comprehension update of high school practices and resources that support outdoor activities and its development in a school environment. **Methods:** A survey was sent to all Quebec high schools and was administered by the physical education teachers in order to gain a better understanding of their programs and resources (summer 2018). An interview with a coordinator from the Department of Physical Education was also carried out (fall 2018) to complete the collection of data. **Results:** Preliminary findings indicated that 90 of the 103 high schools offered outdoor activities (87% of institutions). For outdoor courses, students had to pay their own fees for transportation, equipment rental such as canoes and even sometimes for hiring additional staff for group supervision. For all these activities, the majority of the institutions offered a loan service or equipment rental, especially for backpacks, sleeping bags, tents and stoves. However, this supply of equipment varied highly in terms of the number of products, rental fees and availability outside of the courses. **Conclusions and implications:** This study shows that even though outdoor physical education classes are offered almost everywhere in the high school network, access to outdoor courses usually involves fees. The question of accessibility for these courses is crucial because the costs and the accessibility of the material may have excluded some of the students. A subsequent study could explore this situation and investigate if more students would choose these courses without the costs.

## Learning to infuse Indigenous content in physical education: A story of growth towards reconciliation

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. Jenna Lorusso (University of Western Ontario), Ms. Kaitlyn Watson (University of Western Ontario), Ms. Jocelyn Brewer (Thames Valley District School Board), Ms. Madison Hubley (Waterloo Region District School Board), Mr. Reid Lenders (Thames Valley District School Board), Ms. Megan Pickett (Waterloo Catholic District School Board)*

In 2015 the Truth and Reconciliation Commission of Canada (TRC) outlined 94 Calls to Action to redress the legacy of the Indian Residential School system. This presentation documents our initial response to the TRC as White settler-Canadian pre-service students and educators collaboratively teaching and learning about infusing Indigenous content into school physical education (PE) for all students. Through a storytelling approach and the theoretical frame of critical multiculturalism, we share the stories of our in-class experiences evaluating PE resources that infuse Indigenous content, and of our post-course experiences building a professional community that met in a series of meetings over a one-year period for deeper reflection on cultural infusion. Course documents, post-course meeting artefacts, and written reflections were analyzed in an iterative process of independently and collaboratively thematizing. Broadly, our findings reflect our planning concerns and pedagogical questions related to cultural infusion, which we navigated by engaging with Fitzpatrick's (2010) key practices of critical multiculturalism. More specifically, we negotiated: our concern about planning independently through the practice of building the environment; our concern about the time and research involved by understanding the practice of deconstructing power; our concern about feeling we lacked the relevant knowledge by engaging in the practice of playfulness; our question of how to address stereotypes with students through the practice of critical inquiry; and our question of how to balance the complexity for cultural integrity with the realities of our classrooms via the practice of embodied criticality. Attending more closely to our experience of learning to plan for cultural infusion allowed us to shift from a liberal to critical multicultural lens that benefited our growth towards facilitating reconciliatory education. We suggest that emphasis on the complexities of the *process* and *experience* of learning to plan for cultural infusion is key to allowing for such critical growth.



## Implementation process & effect of Siedentop's Olympic Education through action research: Use of sports competition for sixth-graders in a Tokyo Setagaya school

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Dr. Hiroshi WADA (Ikuei Junior College)*

**Background:** Development of Olympic Education in Japan is not adequately connected to the improvement of Physical Education. Siedentop's Sports Education-based lesson is not yet widely used in Japan. There has been little interest in sports competition for sixth-graders in a school of Tokyo Setagaya since the end of the last trimester until now.

**Purpose:** This study aimed to examine the implementation process and effect of Siedentop's Olympic Education through action research.

**Data collection & analysis:** Participants were 3 elementary school teachers, 106 students from 3 sixth-grade classes, and an action researcher. The study period covered 7 lessons from February 8 to March 12, 2017. Data were gathered from 26 video-recorded lessons, 21 interviews, 16 field journal entries, and 721 student descriptions of each lesson in a questionnaire. Data were analyzed deductively according to the key aspects of the research question: (a) school based on cooperation of researcher and teacher; (b) good sport literacy education, roles learning promotes diversity participation in sport.

**Results:** (a) process; 4 meeting (1 meeting 1 hours) on Olympic Education and school reality in before the unit. Researcher made the unit plan. Teacher check and modify the unit plan. Subject material were easy modification 4 vs 4 vs 4 soccer, 4 vs 4 volleyball, curling. effect ; generally good, relationship to learn. (b) process: 1 lesson was sport philosophy on good sport person. 2-4 lessons were role learning (referee, sport board, commentator, video cameraperson, cheer et al. ) . effect; Students develop good sportsperson.

## Current state and evolution of research on the prevention and treatment of addictions through physical activity and sport

Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

*Dr. Rafael Aleixandre Benavent (UISYS, Unidad Mixta de Investigación, CSIC- Universitat de València. Ingenio (CSIC-UPV)), Dr. Víctor Agulló Calatayud (Departament de Sociologia i Antropologia Social. Universitat de València), Dr. Lourdes Castelló Cogollos (Departament de Sociologia i Antropologia Social. Universitat de València. UISYS, Unidad Mixta de Investigación CSIC-Universitat de València.), Mr. Joan Aleixandre Agulló (Facultad de Filosofía y Ciencias de la Educación. Universitat de València. Spain), Dr. Antonia Agulló Martínez (Unidad de Documentación Clínica y Admisión-UDCA. Hospital Universitari i Politècnic La Fe. Valencia, Spain.), Dr. Francisco Jesús Bueno Cañigral (Plan Municipal de Drogodependencias; UPCCA Valencia. Concejalía de Sanidad, Salud y Deportes. Ayuntamiento de Valencia. Spain)*

**Background and purpose.** Sport and physical activity are widely encouraged by their beneficial health effects. Drug dependence is a serious problem in today's society with serious consequences for personal health and public health. Some programs aimed at the prevention and treatment of addictions include sporting activities. The purpose of this work is to know the current state of research in this field by means of a scientometric study.

**Methods.** A bibliographic search in PubMed database was performed using a search profile that included the MeSH (medical subject headings) "Substance Related Disorders" with the subheadings "Prevention and control" and "Therapy", and the following sport-related terms: "sport", "exercise" and "physical activity". The records obtained were downloaded to a database in Microsoft Access. Several bibliometric indicators were identified and calculated to assess global research on this topic.

**Results.** Since 1965, the year in which the first work was registered in PubMed, 415 papers were published, of which almost 50% were published in the decade 2009-2018. The journals that published the greatest number of articles were Addictive Behaviours (n=14), Psychopharmacology (n=10) and Addiction (n=8). Most of the journals belong to the thematic areas of drug addiction, sport sciences, public health and multidisciplinary. The analysis of keywords shows that the most treated subjects have to do with psychological, epidemiological and physiological aspects, as well as with adolescence, adverse effects, rehabilitation and metabolism. The addictions that attracted the most attention were alcoholism, smoking and cocaine. An important group of works have to do with substance withdrawal syndrome and depression.

**Conclusions and implications.** There has been a growing increase in publications on the prevention and treatment of addictions with sport in recent years, especially in addictions such as alcoholism, tobacco and cocaine, focused in the youth population and on the beneficial aspects of sport in the body.

## **Interindividual variability of the teaching-learning needs of student-athletes. A focus on ICT approaches.**

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mr. Jérémy Bonni (University of Liege), Prof. Brigitte Denis (University of Liege), Prof. Marc Cloes (University of Liege)*

As sports careers are characterized by a high level of uncertainty, getting a graduation represents a real necessity for most of the athletes. Higher education institutions implement teaching-learning supports to help student-athletes dual project.

Their interest has been demonstrated (Capranica & Guidotti, 2016) as the conciliation of an academic and an athletic career poses some difficulties (Breithecker, 2018; Gomez, Bradley & Conway, 2018; Semiz, 2018).

Among the resources that are proposed, information and communication technologies (ICT) represent a promising approach. Strangely, literature is poor about that topic. This study aimed to analyse the student-athletes opinions concerning the use of ICT in order to determine if there are differences according to some of their characteristics. Data were collected in two steps with student-athletes of the ULiege: (1) 9 of them participated to a semi-structured interview; (2) 30 agreed to answer to an online questionnaire built on the provisional data collected during the previous step.

The expectation of using ICT devices in order to meet the needs of this specific group appeared in both parts of the study. Nonetheless, a certain heterogeneity of opinions and expectations was identified. The student-athletes who have the highest expectations about ICT were generally the ones who reported more difficulties in reconciling their dual career ( $.22 \geq r \leq .51$ , depending on the variables taken into consideration). They have also a highest number of weekly training sessions ( $.39 \geq r \leq .52$ ) and a higher rate of absenteeism due to participation in trainings/competitions ( $.25 \geq r \leq .56$ ).

The interindividual variability of the student-athletes' expectations in terms of ICT underlines that an even more personalized follow-up should be implemented for them in higher education.

# A Study of Off-the-ball movements in “Floor Kick Ball” for a 2nd Grade Elementary School Physical Education Class

Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

*Ms. Risako Murai (Wayo Women's University), Mrs. Tomoko Ogiwara (Juntendo University)*

In the Elementary School Teaching Guide for the Japanese Course of Study: physical Education, both on-the-ball skills and off-the-ball movements are required. Studies of off-the-ball movements often target the 4<sup>th</sup> to 6<sup>th</sup> grades of elementary school. However, off-the-ball movements are also required in the 1<sup>st</sup> to 3<sup>rd</sup> grades elementary school. Therefore, the purpose of this study was to examine off-the-ball movements that are acquired for “Floor Kick Ball” in a 2<sup>nd</sup> grade elementary school physical education class. “Floor Kick Ball” is teaching material that requires use of the feet to control a ball in status of offence and defense separated. The participants were twenty-one children who participated in an eight-hour ball games unit. “Floor Kick Ball” was played during every class in the unit. The children's performance in “Floor Kick Ball” was videotaped, and videos of the 1<sup>st</sup>, 5<sup>th</sup> and 8<sup>th</sup> hours of class were analyzed. Four categories of off-the-ball movements were evaluated for failure or success: movements before passing, movements before trapping to pass, movements before trapping to shoot, and movements before shooting. These categories were based on the Elementary School Teaching Guide for Japanese Course of Study.

The main findings were as follows.

1. In the movements before passing, the success rate increased ( $\chi^2=18.041$ ,  $p<.001$ ). Even though off-the-ball movements were not taught by a teacher, children were able to move to positions that allowed easy control of the ball using their feet.
2. In the movements before trapping to pass ( $\chi^2=80.540$ ,  $p<.001$ ) and shoot ( $\chi^2=13.721$ ,  $p<.001$ ), the success rates increased. Children learned “trapping in front of the body” from a teacher.
3. In the movements before shooting, the success rate was insignificant ( $\chi^2=4.371$ ). However, the success rate was above 90% through this unit.

These results suggest that off-the-ball movements were acquired by playing “Floor Kick Ball” in 2<sup>nd</sup> grade elementary school physical education class.

## **An analysis of research presented in AIESEP international conferences from 2016 to 2018**

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. FANGYUAN JU (Department of Physical Education, National Taiwan Normal University), Mr. Cheng-Chieh Huang (Department of Physical Education, National Taiwan Normal University), Ms. Chiu-Tsu Chen (Department of Physical Education, National Taiwan Normal University), Prof. Ching-Ping Lin (Department of Physical Education, National Taiwan Normal University), Prof. Ching-Wei Chang (Department of Physical Education, National Taiwan Normal University), Dr. Feng-Min Wei (National Taiwan Normal University)*

The purpose of this study was to understand the research trends and the latest development of sport pedagogy inquiry. The method was conducted following steps: (1) Collecting the abstracts presented in the latest three yearly AIESEP international conferences, 2016 to 2018; (2) Analyzing totally 668 abstracts through content analysis; (3) Developing a content analysis framework: Co-publishing volume, author's country/region, number of authors, research objects, research methods, research topics, and nature of research; (4) Categorizing the abstracts by three analysts who were familiar with the rules of categorization (inter coder reliability was over 80%). The results showed: (1) One author represented the highest percentage (34%) of presentation and followed by two authors (23%); (2) The United States represented the largest number of presentations, with 24% , followed by the UK with 23%; (3) The research focused mostly on students (40%) and secondly on teachers (28%); (4) The descriptive research method was used mostly in the studies (42%) and qualitative research was also applied in the others (26%); (5) The topic was focusing mostly on teaching (30%), secondly on physical education teacher education (28%); (6) 92% of presentation were empirical studies. Recommendation: The research trends, topics and the issues will be presented in terms of the physical education teaching, curriculum and physical education teacher development.

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## Exploring Early Course Embedded Field Experiences Influences On Preservice Teachers' Perspectives of Constructivist Teaching

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Dr. Karen Richardson (Bridgewater State University), Dr. Misti Neutzling (Bridgewater State University), Dr. Deborah Sheehy (Bridgewater State University)*

There is no debate that for preservice teachers (PSTs), field experiences are the central part of their teacher preparation programs (Behets & Vergauwen, 2006). Rovegno (2003), however, reviewed the role of the school context in knowledge construction and found the community, peers, administrators and students can have a positive or negative effect on pre-service teachers' knowledge development. The purpose of the study was to explore how an early course embedded field experience influenced preservice teachers' perspectives of teaching within a constructivist teacher education program. We examined in what ways early field experiences guided PSTs understanding of constructivist learning. Constructivist perspectives on learning place the learner actively engaged in the construction of knowledge and understanding. The preservice teacher is thus in a role where they must encourage students to explore, discover knowledge, set and solve problems and then reflect and think critically (Rovegno & Dolly, 2006). Participant were 16 junior level PSTs concurrently enrolled in Elementary Methods and Secondary Methods. Field work included co- planning, co-teaching and reflecting on 6 elementary lessons (4<sup>th</sup> grade in movement education based games, dance, and gymnastics) and 6 middle school lessons (7<sup>th</sup> grade in TGfU Ultimate Disc and Fitness) with ongoing support from University faculty. Data collection included 30-60 minute focus group interviews; lesson plans; written and video reflection. Data were analyzed qualitatively. Three categories of results were a) PSTs identified the need for more support structures, however valued the support structures offered (e.g., teaching pairs, "Coffee Talks") to develop and implement lessons rooted in constructivism, b) field experiences highlighted the importance and challenge of building relationships as a foundation for learner-centered approaches, and C) PSTs identified a shift from concerns about themselves to designing appropriate instruction for students through their extended experience in the same context. Early, faculty supported, extended field experiences provided an authentic context for PSTs to critically think, reflect, and apply new knowledge.

## Restorative Practice in Physical Education: Examples at the Elementary Level

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Thursday, 20th June - 12:15: (Nexus Lobby) - Poster Presentation

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*Dr. Shrehan Lynch (University of East London), Dr. Jennifer Walton-Fisette (Kent State)*

In a time when schools are more diverse than ever before, it is our responsibility as educators to engage in socially just practices and innovative pedagogical approaches to serve students that face a number of sociocultural inequities in schools. Schools should be sites of democracy, where students take part in social justice education (SJE), which encourages them to question status quo norms and inequitable social structures (Mthethwa-Sommers, 2014). Teachers that employ SJE focus on anti-racist pedagogies, which are founded upon building strong positive relationships with students in communities of collaboration and dialogue (Blakeney, 2005). Educators that follow this approach become active in their methods to disrupt normalized classroom policies and procedures (Mthethwa-Sommers, 2014). An approach under-researched in physical education is restorative practice, a method that aims to restore relationships and build communities within schools. As part of broader digital ethnography (Pink, 2016) on teaching for social justice in physical education, this presentation will cover how one white male physical education teacher incorporated restorative practice principles at the elementary level. Data were collected using several methods including formal and informal interviews, conversations, short films, document collection, social media accounts, and an electronic journal. Data were analyzed using an inductive and deductive analysis (Patton, 2015). Findings indicated that the physical education environment was built around these restorative practice principles: (a) socioemotional learning, (b) building a community of learners, (c) incorporating student voice, and, (d) employing unique approaches to misbehavior. Whilst we agree there are no best practices towards SJE in physical education and every context is different, the study did provide avenues educators could explore. Practical examples will be provided for physical educators, physical education teacher educators, researchers, and those with an interest in providing environments for a more equitable society.

# **Roundtable 1**



## Transitions from Physical Education Teacher Education to teaching practices in Physical Education

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Thursday, 20th June - 12:15: (Nexus 126) - Roundtable discussion

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*Dr. Erik Backman (Dalarna University), Dr. Björn Tolgfors (University of Örebro), Dr. Gunn Nyberg (Dalarna University), Prof. Mikael Quennerstedt (University of Örebro)*

Research display mixed results regarding the impact that physical education teacher education (PETE) have on physical education (PE) practices. In a recently initiated project funded by the Swedish Research Council, we focus on a certain content, assessment for learning (AfL), in order to investigate the influence of PETE for newly qualified teachers (NQT). The aim is twofold. Firstly, inspired by Bernstein's theory of the pedagogic device, the aim is to investigate how AfL is constructed in university courses, re-contextualised in school placement courses, and realised in teaching practice in school PE. Secondly, and inspired by Ball's ideas on performativity, the aim is to analyse fabrications of AfL in the transitions from PETE to PE practice. The design of the project is longitudinal where we follow about 10 PETE students recruited from two different PETE universities in Sweden to study how their understanding and teaching practice of AfL is transformed. Extended knowledge of what AfL becomes in PE when NQTs meet established assessment cultures and experienced colleagues is of great relevance for strengthening PETE's influence on PE practice. During the round table we hope to discuss the use of Bernstein and Ball in our endeavour to explore transitions from PETE to PE.

## Designing and integrating technology for interactive criteria sheet to enhance augmented feedback in motor skill diagnosis

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Thursday, 20th June - 12:25: (Nexus 126) - Roundtable discussion

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*Dr. Victor Pinheiro (The University of Akron), Mrs. Melissa Dreisbach (The University of Akron), Ms. Amanda Pinheiro (Boston University)*

**Purpose:** The proposed presentation is to provide a conceptual framework for (the integration of technology in the teaching and learning of motor skill for the professionals). **Main points:** Technology integration and application for interactive criteria sheet for teaching/learning of motor skills will be presented. Feedback to correct errors in sport specific technique is crucial to enhance individual's performance as it relates to safety, effectiveness and efficiency. One-on-one corrective specific feedback is more desirable compared to the general group feedback that is often provided in physical education classes and team sports as noted by (Knudson, 2013). **Conference theme:** To accommodate all students/athletes and provide individual corrective feedback, technology integration/applications (Hot Buttons, Hudl-Technique App and QR Code Readers) were embedded into designing an interactive criteria sheet by following the guidelines and theoretical foundation provided by Pinheiro (1992, 1994). **Conclusions/implications:** During the roundtable discussion the embedded technology integration/application and the interactive criteria sheet will be illustrated. A live demonstration of the integrated technology will be provided, followed by interaction and discussion of the effectiveness of using embedded technology in interactive criteria sheet to diagnose motor skill. Corrective feedback on the critical elements of the technique and subsequent research topics will be provided.

## **Building perceptual know-hows in Physical Education and Sports. Learning to listen to one's body, toward a well-being and health education**

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Thursday, 20th June - 12:35: (Nexus 126) - Roundtable discussion

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*Ms. Mary Schirrer (university of Lorraine), Ms. Aline Paintendre (University of Strasbourg)*

In Sports and Physical Education (PE), the consideration of the sensations seems to expand, while a technological reading of the body also develops. In France, a group of physical activities (bodybuilding, step, swimming and running) are for example proposed in High School so that pupils learn how to train themselves (CP5), taking account of their sensations.

Freediving counts more and more practitioners (Fricker, 2015) who appreciate to turn to their interiority (Schirrer, 2015). Taking into account the diversity of somatic cultures, we question the possibility of accompanying the followers towards the construction of perceptive know-how (Schirrer & Paintendre, 2017). The term Perceptive know-how is used to describe the capacity to listen and to interpret the sensations which emanate from one's body, with the intention to adapt to the environment and/or to have better management of the body's physical capacity.

This presentation is based on two field studies, using phenomenology and sensory anthropology as a theoretical framework (Candau, 2005; Wathelet, 2013). The first one was led in EP, with pupils of High School engaged in step CP5 (Paintendre et al., 2019). The other one was led in apnea, with ordinary and experimented freedivers (Schirrer, 2015, 2017).

These two studies aimed at documenting and analyzing the physical and subjective experience of practitioners. From these studies, strategies of intervention susceptible to develop perceptive skills (Schirrer & Paintendre, 2017) will be presented. For example: considering stages sensory and guiding the learner to focus his attention; using contrasts to amplify sensations; helping the analysis of two readings of the body: technological and embodied; co-building scales of felt on the whole course of training or formation.

Finally, developing a perceptive know-how through an explicit sensory education is connected with wider societal objectives for enhancing health and well-being. Especially with adolescents who need to reappropriate their bodies, in a context of objectification of the body.

## Encounters with nature in educational practices

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Thursday, 20th June - 12:45: (Nexus 126) - Roundtable discussion

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*Mrs. Karin Andersson (Örebro University, Sweden)*

Scandinavian countries have a long tradition of using nature as fosterer in different educational practices, and aims for outdoor education are expressed in the Swedish national curricula since the mid-1900s. In my ongoing PhD-project I have so far explored how aims of outdoor education in the national curricula have changed since the mid-1900s. I have also examined moral meaning making processes in ongoing outdoor practices. The results so far reveal that outdoor education has occurred in different school subjects and with different aims, but that the diversity of subjects as well as aims have been reduced in the current curricula. Outdoor education is now mostly expressed in physical education and with recreational aims, i.e. physical activities outdoors. Outdoor education that focus on the direct encounter with nature is rarely expressed, even though there are a lot of situations in outdoor practice where moral relations are at stake. However, the teachers seldom pay attention to these aspects. During the round table I would like to discuss my continual work and the role of outdoor education in physical education practice, and in consequence what further research that is needed to develop physical education teacher education with nature experiences in mind.

## A Life History on Beliefs and Competencies of a Physical Education (PE) Teacher Mr. Mori

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Thursday, 20th June - 12:55: (Nexus 126) - Roundtable discussion

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*Dr. Seiichiro Kihara (Hiroshima University)*

**Background and Purpose:** Life stories, and identities and beliefs of PE teachers has been revealed by Armour & Jones (1998). Korthagen & Vasalos (2005) proposed “the onion model” which is consisted of “behavior, competencies, beliefs, identity, and mission”, and insists that teachers should reflect deeper levels of beliefs, identity, and mission. It is said that PE teachers should develop their competencies of teaching based on their beliefs and identity in their careers. This study aims to clarify factors that made and transformed beliefs and competencies in teaching elementary school PE through interpreting the life story and documents of Mr. Mori.

**Methods:** Mr. Mori was born in 1958 and graduated from a teacher education course in 1982. He was employed as a PE specialist at a university attached elementary school and had taught PE for 21 years until becoming a vice-principal of the school. His 171 documents of case studies on PE were collected and reviewed. In addition, 5 semi-structured interviews were carried out. The transcripts of the first interview was divided into 34 sections. The 34 sections were analyzed inductively, and 23 categories were generated throughout four periods.

**Results:** Turning points of Mr. Mori’s beliefs and competencies were analyzed in four periods. Period I comprises of a strong impression from the past by elementary school and university teachers and chances for professional development of the Attached Elementary School Fuji. PE researcher and professional body are the main factor guiding Period II. In period III his reflection on specialty on teaching movement skill and learning theory of movement conception was emphasized. While in period IV learning educational content theory of PE was the ruling factor.

**Conclusions:** Mr. Mori’s competencies of teaching PE were based on his beliefs and formulated by meeting key persons, learning theories, and his reflection on teaching PE.

# **Symposium 3: Laureus Sponsored Event**

## Social-Emotional Learning in Physical Activity-based Out of School Time Settings

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Thursday, 20th June - 13:45: (Nexus 239) - Symposium

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*Dr. Michael Hemphill (The University of North Carolina at Greensboro), Prof. Sylvie Beaudoin (Université de Sherbrooke), Mr. Yongsun Lee (The University of North Carolina at Greensboro), Dr. Barrie Gordon (Victoria University of Wellington), Dr. Paul Wright (Northern Illinois University), Mrs. Victoria Ivy (The University of Alabama), Dr. K. Andrew R. Richards (The University of Illinois at Urbana-Champaign), Dr. Michael Lawson (The University of Alabama), Dr. Steven Howell (Northern Illinois University), Dr. Jenn Jacobs (Northern Illinois University), Ms. Jessica Yavitz (Chicago Fire Foundation)*

### Abstract

Structured social and emotional learning (SEL) programs intentionally promote skill-building across five core competencies, including: self-awareness, self-management, social awareness, responsible decision making, and relationship skills. Out-of-school time (OST) programs provide a unique context for SEL instruction, in part because OST settings have more flexibility to emphasize SEL. A review of research on SEL programs in OST contexts reported that youth participants demonstrated positive affect, behavioral improvements, and improved academic performance. Those positive findings were enhanced when youth had the opportunity to practice SEL skills across a variety of contexts such as home, school, and OST.

Physical activity and sports programs have often thrived in OST contexts. Many of those programs are designed to teach life skills through physical activity (e.g., Hellison, 2011). More recently, scholars have begun to consider how our established physical activity instructional models promote SEL in OST contexts. For example, Gordon and colleagues (2016) reported that their physical activity program that focused on life skills aligned closely with SEL. More research is needed to understand SEL instruction in OST physical activity programs and how those programs can help youth develop competencies to navigate their personal and social lives.

Related to conference sub-theme #4, the purpose of this symposium is to examine SEL in OST physical activity programs. An emphasis will be placed on empirical research findings that substantiate the fidelity of program implementation and evidence of social and emotional learning. All four programs have been explicitly designed to build SEL skills. Moreover, the programs are consistent with the “SAFE” standard for quality SEL programs; including sequenced activities, active engagement, focused time for SEL skills, and an explicit emphasis on building SEL competencies. This symposium includes international perspectives that will advance research on SEL in OST settings and have implications for practice.

### Paper 1

#### Youth leaders’ use of responsibility-based teaching strategies in a cross-aged leadership program

Sylvie Beaudoin, Michael Hemphill, & Yongsun Lee

*Teaching personal and social responsibility* (TPSR, Hellison, 2011) has been used to develop life skills in several different settings, including after-school programs (Martinek & Hellison, 2016). Some of these programs use cross-aged teaching, where youth leaders teach younger children life skills through physical activity. The *Tool for Assessing Responsibility-based Education* (TARE, Escarti et al., 2015) observation instrument identifies nine teaching strategies and nine student behaviors that align with TPSR. The aim of this study is to examine youth leaders’ use of responsibility-based teaching strategies in a cross-aged leadership program. This study used a descriptive case study design (Yin, 2018). Youth leaders (n = 16) from a cross-aged leadership program co-taught several 15-min physical activity lessons to groups of children to promote PSR. Weekly lessons were videotaped throughout a five-month period to allow for delayed systematic observation. Data underwent descriptive statistical analysis. Preliminary re-

sults show that some teaching strategies (e.g. giving voices and choices) are used more often than others to promote responsibility (e.g. leadership). Some strategies are also used at specific moments during the lesson (e.g. promoting transfer occurs mostly in the reflection time). Findings may help better target training and feedback to improve SEL in cross-aged leadership programs.

### ***Paper 2***

#### **Social and Emotional Learning through a New Zealand out-of-school Boxing Programme**

Barrie Gordon, Paul Wright, & Michael Hemphill

The use of sport and physical activity based programmes to generate Social and Emotional learning (SEL) has a long history. From ancient Sparta to the British public school system, to present day out-of-school sports clubs, societies have looked to sport and physical activity programmes to help mould their youth into being “good” citizens who contribute positively to society (Meller, 1977; Redman, 1988). This presentation reports on a case study of a long-term New Zealand boxing academy with a vision to develop vibrant, independent and responsible youth contributing to their communities. The study used a mixed method convergent design (Creswell, 2015) and included data from, surveys, systematic observations, field notes and interviews. This presentation will consider the processes used within the boxing academy to generate SEL and the degree to which they were successful. The programme will be examined through the SAFE framework (Durlack, Weissberg & Pachan, 2010) and Holt, Deal & Smyth (2010) model of positive youth development through sport. Findings illustrate ways in which life skill instruction were integrated into practice and how youth perceived the life skills to impact their experience.

### ***Paper 3***

#### **Understanding the Transfer of Social Emotional Learning from an Afterschool Program to an Elementary School**

Victoria Nicole Ivy, K. Andrew R. Richards, & Michael A. Lawson

**Background:** Sport-based youth development programs focus on developing social and emotional learning competencies among youth. Transfer of learning from a program into the school setting is more likely if the two entities share similar approaches and expectations. The purpose of this study was to understand the perceived similarities and differences youth and school personnel share regarding the promotion of social and emotional learning competencies.

**Method:** This ethnographic study included six child participants, three classroom teachers, a liaison between the school and the program, and the school principal. Data were collected over a five-month period and included observations and field notes, semi-structured interviews with each participant, informal conversations, as well as program coordinator and youth journaling.

**Results:** School and program personnel share a number of similarities regarding their desire for positive youth outcomes, though their approaches were different. Youth were aware that they were expected to demonstrate said competencies in distinctive ways depending on the setting though they found it challenging to select behaviors most appropriate for the specific setting.

**Discussion:** Varied approaches to social and emotional learning limit the ability of youth to demonstrate desired competencies. Partnerships among adult leaders may initiate more collaborative approaches to improve youth outcomes.

### ***Paper 4***

#### **Increases in personal and social responsibility in the classroom setting appear to be fostered by participation in an after-school sport-based youth development program**

Paul M. Wright<sup>1</sup>, Steven Howell<sup>1</sup>, Jenn Jacobs<sup>1</sup>, and Jessica Yavitz<sup>2</sup>



Northern Illinois University<sup>1</sup>, Chicago Fire Foundation<sup>2</sup>

**Background:** Sport-based youth development programs can promote values, attitudes, and behaviors that help children succeed in school. With this aim, the professional soccer team in Chicago offers afterschool programs that integrate an evidence-based social and emotional learning (SEL) framework with soccer. Framed around learning transfer, the purpose of this study was to examine the connection between program participation and classroom behavior.

**Method:** Observation and feedback survey data were analyzed descriptively to assess program implementation. The Personal and Social Responsibility Questionnaire was administered to students (n=356) at the beginning and end of the program. Personal and social responsibility subscales were each assessed using a two-tailed dependent-samples t-test.

**Results:** Implementation data indicate SEL competencies were directly addressed and that students believed these skills had a positive influence on their classroom behavior. Students reported significantly ( $p < 0.05$ ) higher levels of personal and social responsibility in the classroom setting from the beginning to the end of the program.

**Discussion:** Similar to previous research, this study indicates the SEL framework aligns well with SBYD practice. Results support the notion that SBYD programs can foster the transfer of responsible behaviors to the classroom environment. Limitations and recommendations for research and practice will be discussed.

# **21st Century Teaching Strategies**

## Pre-Service Physical Education Teachers' Experiences of 21st Century Skills Through Community of Practice

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Thursday, 20th June - 13:45: (Nexus 237) - Oral Paper

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*Mr. Gokhan Sacmalioglu (Ankara University Faculty of Sport Sciences), Dr. Ferda Gursel (Ankara University Faculty of Sport Sciences)*

With the technological developments in the 21st-century, the needs of the community, the characteristics of learners and teachers have changed. The main purpose of education now is to raise individuals who possess 21st-century skills. Therefore the importance of teachers possessing these skills and transmitting them to their students are stressed very often, but limited research is done about it during the teacher education processes (Thieman, 2008; Aydeniz, 2017).

For teachers to develop metacognitive skills, a shift from the knowledge-centered approach to skill-centered approach is needed in teacher education. The concepts of Community of Practice (CoP), offer a different learning approach, increasing peer interaction through discussion, analysis, and problem-solving (Lave and Wenger, 1991). Therefore this study aims to explore Physical Education Teacher Education (PETE) students' process of using 21st-century skills through Community of Practice. This case study examines PETE students' using 21st-Century skills in a newly constructed CoP for 10 weeks during the elective course of "Multidisciplinary Teaching in Physical Education".

Participants were 12 senior PETE students who have taken this elective course, one faculty lecturer of the course as an expert, and one researcher as an observer. Data were collected through observer field notes, pre and post focus group interviews with PETE students, audio of weekly CoP meetings, post-lesson reflections of PETE students. Data were analyzed using thematic analysis and emerging themes were "from arguing to discussing", "critical creativity", "tool-box" and "all about experiences".

Data showed that when PETE students who have trust and respect for each other engage in conversations through their previous knowledge and experiences in a CoP with the constant supervision of an expert, they gain a new repertoire for their Professional life. This repertoire includes knowledge, experiences, and skills that they need as 21st-century teachers. As a conclusion, concepts of CoP can be used to prepare PETE students for 21st-century.

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## The use of 360° video in PETE

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Thursday, 20th June - 14:06: (Nexus 237) - Oral Paper

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*Dr. Lionel Roche (University Clermont Auvergne)*

The use of video in PETE goes back a long way (Greenberg, 1971), but new-generation video recorders like GoPro, or point-of-view (POV) cameras (Baghurst, 2016) have recently been used in PETE. Actually, in teacher education new kind of video are more and more used : 360° video (Walshe & Driver, 2019). In PETE, the use of these video is not really developed (Roche & Gal-Petitfaux, 2017) and this should be an interesting way in PETE.

Our contribution present a study who was conducted with pre-service teachers in a video-enhanced environment, based on (a) videos shot from different perspectives : wide-angle, 360°, POV and synchronised video (wide angle and POV in the same video), (b) iconographic resources (photographs taken during PE lessons), and (c) textual resources (published research in PE). This study is part of the Form @ tion360 project (funded as IDEX UCA).

Our theoretical framework is the course-of-action theory in cognitive anthropology (Theureau, 2006) based on the hypothesis of situated action (Suchman, 2007) and enaction (Varela, 1989).

In this study, we centered our approach on the experience the pre-service teacher undergoes, and the activity developed during training in a video-enhanced environment. We have two main research question : 1) What kind of activity and experience did the students develop as they watched 360° video and 2) working up from the activities deployed during training, and the experience undergone by the pre-service teacher, which design proved most useful for a video-enhanced teacher training environment for learning to teach PE?

This study made three main findings : (i) pre-service teacher's choice of videos taken to understand and think about the classroom situations viewed, (ii) the experience undergone by the students during the viewing of 360° video, and (iii) complementarity in the use of different types of video in PETE.

## The First Touch of Flipped Learning Approach of PETE Students

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Thursday, 20th June - 14:27: (Nexus 237) - Oral Paper

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*Dr. Ozlem Alagul (Kastamonu University, Department of Physical Education and Sports Teaching), Dr. Ferda Gursel (Ankara University), Ms. Seda Canlı (Ankara University Faculty of Sport Sciences)*

While Flipped learning approach has become one of the famous pedagogical approach in recent years, we have little information regarding what PETE students think of this approach how they accept it in their course which is generally conducted both theoretical and practical. Starting from this, the aim of the study was to understand how the PETE students' perceived of flipped learning in their first application. The study was designed through case study. The study was conducted in the Movement education course which is conducted both theoretical and practical the PETE program. The data sources of this study were; interviews with students, posts and a live broadcasts on Instagram, post-term reflections of students. All data were analyzed through inductively using content analysis. The findings showed that through "*Support of flipped learning through Trello & Instagram*" students started to use social media they they have already using in their life, so they started communication with classmates both in-school and out-of-school. They also can distributed the roles so easily in-class activity. "*Problem based learning community*" theme showed that students felt like a teacher themselves when they try to solve problem, they solved problem so quickly with discussions and they learned new solutions from their peers. It is also found that "*Peer blended tutoring*" theme students stated that they were so active in-class time, because they understand better when peer mentor explained their missions, they asked more comfortable questions and students felt closer to her in their learning journey. As a result, using social media in flipped learning extend the in-class time and develop context-aware content in learners' daily life. Successful migration towards a flipped learning environment is dependent on the lecturer's ability to integrate innovative skills within the learning ecosystem and so the peer mentor can be helpful for designing this ecosystem.

# **Physical Activity Studies Among Young Children**

## **A case study of how daily physical activity initiatives of occupational therapy were used to help physical movements for a child with dyspraxia.**

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Thursday, 20th June - 13:45: (Nexus 275) - Oral Paper

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*Ms. Laura Power (Canterbury Christ Church University), Dr. Kristy Howells (Canterbury Christ Church University)*

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### Background

Occupational therapy within the UK is used within schools to help develop children's: fine motor; visual-perceptual; cognitive; and sensory-processing deficits as found in children with dyspraxia. The case study focuses on 'Sue' an 11 year old with dyspraxia, she presented with poor coordination, lack of focus and poor organisation skills. Within this paper, two daily physical activity interventions will be focused on: 'resisted crawl' and the 'cat'. These are activities that are to help with difficulties linked to symmetric tonic neck reflex, and cause tension in the body when sitting on a chair or on the floor with arms and legs bent. It affects hand and eye coordination and causes problems with refocusing from far to near distance.

### Methods

The physical activity interventions were completed by a trained member of staff on a daily basis with 'Sue'. Structured observations focusing biomechanically on the skills involved within the physical activities were completed. Also conversations with 'Sue' were recorded and semi-structured observations that took place once a week during (Friday) lunchtime to see how 'Sue' was applying her daily physical activities to a play context.

### Results and Conclusion

The data will show the progression of the successful as well as the unsuccessful parts of the physical activities throughout the 3 terms. It was found that when the interventions were completed on a daily basis 'Sue' was able to develop her coordination, by the end of the third term only the head and in particular the eyes were the unsuccessful part of the resisted crawl whilst the legs were the unsuccessful part of the cat, all other parts of the body were now being consistently successfully completed on a daily basis. The breaks for holidays impacted on 'Sue's' movements and school have since recommended and developed a holiday plan to keep the progression of movements for 'Sue'.

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## Preschool facilities and children's motor skills

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Thursday, 20th June - 14:06: (Nexus 275) - Oral Paper

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*Dr. Arja Sääkslahti (University of Jyväskylä), Mrs. Donna Niemistö (University of Jyväskylä), Ms. Kaisa Nevalainen (University of Jyväskylä), Dr. Arto Laukkanen (University of Jyväskylä), Mrs. Elisa Korhonen (University of Jyväskylä), Prof. Taija Juutinen (University of Jyväskylä)*

Environmental and social conditions at preschools are associated with children's physical activity (PA). Also, the development of motor skills (MS) is associated with the amount of PA. This study aimed to determine if childcare centre facilities and environmental conditions are associated with children's MS. The study participants were 1,136 children aged 2 to 7 years attending early childhood education (ECE) at randomly selected Finnish day-care centres ( $N = 37$ ). The head of each centre completed a questionnaire on the each centre's physical and social conditions. All children's MS were measured with TGMD-3 test battery (Ulrich 2013) and 4-7-years old children with KTK test battery (Kiphard & Schilling 1974, 2007). Descriptive statistics describe the data. When examining the associations between MS and childcare centre –related variables, hierarchical linear regression models were used. Results revealed variation in environmental and social condition between childcare centres: 32% of centres did not have own gym, and size of the playground area varied substantially (226–11,000 m<sup>2</sup>), as did access to forests (54%). Physical education (PE) varied also: 54% of centres had yearly plan for PE and the amount of organized PE in a week varied from 0.5–7 times/ week. Measured conditions were associated with children's MS as follows: children's age, gender, the amount of surfaces. The size of yard associated with manipulative skills and shape of yard with locomotor skills. Based on these results there is need to pay attention for environmental and social conditions. Otherwise, there may be difficulties for early educators to achieve the targets of supporting children's overall learning prerequisites, stated by curriculum for early education.



## Women and Girls: #Active, Fit and Sporty – Northern Ireland’s Journey!

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Thursday, 20th June - 14:27: (Nexus 275) - Oral Paper

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*Mrs. Tandy Haughey (Ulster University), Ms. Angharad Bunt (Sport Northern Ireland)*

**Background:** The Sport and Physical Activity Survey (SAPAS) carried out in 2010, highlighted that only 35% of women across Northern Ireland achieve the recommended 30 minutes of physical activity, 5 times a week. Women’s participation in sport peaks in young age groups (16-29 – 43%) and declines with age (50+ - 18%). So what can key organisations do to shift this change? A coordinated approach – So why has the Female Sports Forum been established to get Northern Ireland Females #ActiveFitandSporty!

**Methods:** Mixed methods approach adopted which included a systematic review of organisations involved in the delivery of physical activity and sporting programmes at all levels. Consultation events across Northern Ireland. Implementation and evaluation of programmes. Themes established for action plan.

**Results:** It was evident from data collected, provision of opportunities for female participation in activities was large. There were gaps in relation to aspects such as role models, media attention, leadership and research from a Northern Ireland context. Lead to the development of a strategy and pledge. Funding was released in October 2016 by Minister of Sport for Northern Ireland to assist in achieving aspects of the action plan developed from the strategy and consultation events.

**Conclusions:** Working in partnership with community, voluntary, statutory and education organisations to achieve a coordinated approach is vital. A common vision shared by all partners will ensure “Women and Girls: #Active, Fit and Sporty” in Northern Ireland.

# **Grading and Assessment**

## Grading in Physical Education from Students' Perspective

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Thursday, 20th June - 13:45: (Nexus 154) - Oral Paper

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*Dr. Aiko Möhwald (TU Dortmund University)*

### **Background and purpose**

The assessment and grading of all school subjects is obligatory in the German school system. The curriculum of PE in Germany is based on the “double mandate” of school sport. On the one hand, teachers should foster students’ motor skills to enable them to join extracurricular areas of sport (“education *to* sports”). On the other hand, the context of sports offers many possibilities to develop students’ social skills (“education *through* sports”). Therefore, the areas in grading are not only based on techniques and motor skills, but also result in, for example, effort or participation, (Baghurst, 2014). While teachers’ practice of grading in PE has already been investigated, there is a lack of knowledge regarding the students’ perception of it. Thus, the main research interest is as follows: how do students perceive the grading process in PE?

### **Methods**

In total, 21 semi-structured interviews with students from class 3 to class 13 were conducted ( $n = 10$  female). The transcribed interviews are categorized by using thematic analysis.

### **Selected results and discussion**

The focus of the current analysis lies in the reconstruction of students’ perceived areas of assessment in PE. The majority of students emphasize the motor-based dimension as the explicit basis for processes of assessment and grading in PE. Moreover, it is reported that some PE teachers assess students’ extracurricular physical activity (e.g. club association) for the grading processes in PE. From a pedagogical perspective, both findings seem questionable. Firstly, the dominance of the assessment of motor abilities undermines the possible social developmental function of PE. Secondly, extracurricular physical activity is not part of the educational context, and should not, per se, lead to a specific PE grade.

### **Reference**

Baghurst, T. (2014). Assessment of effort and participation in physical education. *Physical Educator*, 71,505-513.

## Negotiations Between Preservice Classroom Teachers and Students During a Physical Education Early Field Experience

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Thursday, 20th June - 14:06: (Nexus 154) - Oral Paper

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*Dr. Kelsey McEntyre (Tarleton State University), Dr. Matthew D. Curtner-Smith (The University of Alabama), Ms. Deborah Baxter (The University of Alabama)*

**Background and purpose:** Although often ill-prepared and hesitant, elementary preservice classroom teachers (PCTs) and inservice classroom teachers frequently find themselves teaching physical education (PE). Reluctance of PCTs to teach PE has been attributed to a lack of content knowledge and anxiety over various elements of pedagogical skill. The purpose of this study was to understand and describe the element of negotiation engaged in by PCTs and their students during a PE early field experience (EFE) by looking at both the patterns and types of negotiations as well as the extent of negotiations.

**Method:** Participants were 16 PCTs enrolled in the EFE. They taught a variety of content within six lessons to second and fourth grade students. Data were collected using six qualitative methods: non-participant observation; informal, formal, and stimulated recall interviews; document analysis; and critical incident reflections. Data were analyzed using analytic induction and constant comparison.

**Results:** Nine PCTs were deemed ineffective negotiators, while seven PCTs were considered effective negotiators. Factors influencing PCT negotiation included comfort with physical education, pedagogical knowledge, content knowledge, and pedagogical content knowledge. Factors influencing student-initiated negotiation included gender, age, skill level, and content taught.

**Conclusions and implications:** Training PCTs to negotiate could improve teaching performance by making PCTs aware of the classroom ecology paradigm in general and the ways in which teachers and students can initiate negotiations in particular. More time in the classroom and in the field would also give teacher educators the chance to help PCTs see how the general pedagogical skills they have learned in the classroom setting can be transferred and adapted to the gymnasium and vice versa. PCTs should also be given the opportunity to work with the same group of students throughout an EFE, allowing them to build relationships, thus impacting negotiations.

## Analysis of the activity of PE teachers facing reform: currently research

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Thursday, 20th June - 14:27: (Nexus 154) - Oral Paper

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*Mrs. Annabelle Grandchamp (HEP Lausanne / University Lausanne), Mr. Méard Jacques (HEP Lausanne), Mr. Quin Gregory (University of Lausanne)*

A reform has been recently put in place in the Canton of Vaud (Switzerland) about the evaluation program in Physical Education (PE). This new evaluation is summative but not certificative (Lentillon-Kaestner *et al.*, 2018). This study aims to better understand the difficulties PE teachers experience when they evaluate their students, in this reform context: first, how they adapt cantonal assessments whilst addressing their concerns; secondly, how they confronted with this reform are able to articulate summative requirements with more formative concerns (addressing assessments for learning, accountability and student engagement in their assessment) (Leirhaug & Annerstedt, 2015; López-Pastor *et al.*, 2013).

The theoretical and methodological framework of the study is the Clinic of activity (Clot, 2008) which suppose a development process that finds its source in an intra-psychic conflicts subject (Vygotski, 1978) and the gap between which has been prescribed (i.e. the reform), and what is actually done and what is “hindered” from the activity (Clot, 2008). A qualitative and longitudinal study of six PE teachers sought to analyze their evaluative activity in a context of reform through simple and cross-face self-confrontation interviews.

The results presented are partial because the research is in progress. They highlight intra-psychic conflicts among teachers during tests with pupils. They also show a difference between the prescribed activity and the actual activity of the teacher, which is a source of internal conflict for the teacher. Using self-confrontation interviews enabled an open space for teacher development and new solutions (Yvon & Garon, 2006). This study confirms that it is difficult to change evaluation practices. It appears that this reform reactive equity concerns among teachers. That evolution implies making compatible a system of punctual and standardized tests with the correct stakes in tune with an assessment for learning.

# **Partnerships for PETE**

## A comparative study of school placement in three European Physical Education Teacher Education programmes

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Thursday, 20th June - 13:45: (Nexus 155) - Oral Paper

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*Dr. Joao Costa (University College Cork), Dr. Manolis Adamakis (University College Cork), Dr. Wesley O'Brien (University College Cork), Dr. Aspasia Dania (National and Kapodistrian University), Prof. Marcos Onofre (Laboratório de Pedagogia, Faculdade de Motricidade Humana & Unidade de Investigação e Desenvolvimento em Educação e Formação, Instituto de Educação Universidade de Lisboa (FMH), Portugal), Mr. Nuno Ferro (Laboratório de Pedagogia, Faculdade de Motricidade Humana, Portugal), Dr. Fiona Chambers (University College Cork)*

**Background and purpose:** Comparative Physical Education (PE) provides a framework for co-constructed knowledge among and across different contexts (i.e. countries and societies). Furthermore, it contributes to understanding and networking with international cooperation, through observation and evaluation of PE and sport systems worldwide. The concept of combining some level of practical experience with academic learning is widely accepted within PE teacher education (PETE) programmes, for which school placement (SP) is a key component. To prepare quality SP, PETE requires prior consideration at a theoretical level that involves the selection of activities, the best temporizing and its justification in the session. However, on an international scale, there is a lack of an agreed practise for PETE SP and usually depends on the programme's orientation. The purpose of this study was to describe and compare three PETE SP experiences in three EU countries.

**Methods:** The SP of the respective PETE programme from three universities in different countries (Greece, Ireland and Portugal) were analysed and compared. Data was retrieved from the relevant Book of Modules, the Programmes of Studies and University Tutors or SP Coordinators in the three PETE programmes. Data were analysed through content and continuous comparison analysis, using Klein's (1991) nine curriculum elements of the Curriculum Framework for Decision Making (goals, content, materials and resources, activities, teaching strategies, evaluation, grouping, time, space).

**Results:** Results demonstrate a set of similarities and differences across Klein's curriculum elements between the three PETE SP experiences associated to aspects of professional identity, evidence-based practices, and contextual aspects related to the teaching qualification and programme accreditation.

**Conclusions and implications:** The findings allow to discuss how foregrounding aspects of professional identity and evidence-based practices are negotiated in each context to justify emerging similarities and differences. Implications for the design, implementation and assessment of SP will be provided.

## Together We Can do so Much: Forging PETE & K-12 Partnerships

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Thursday, 20th June - 14:06: (Nexus 155) - Oral Paper

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*Dr. Michael Hodges (William Paterson University), Dr. Staci Drewson (Monmouth University)*

Public school physical education (PSPE) and physical education teacher education (PETE) programs are acutely interconnected. PETE programs are predominately reliant on PSPE programs to offer field experience in a conducive setting. While PSPE programs serve as a fertile environment for the pedagogical development of preservice teachers, PETE programs expose cooperating teachers to contemporary, evidence-based best practices. Although the benefits can be plentiful for both PSPE and PETE programs, very few have successfully coordinated an effective, enduring partnership. This presentation is relevant to the conference sub-theme: Professional Preparation for Health and Physical Education, Sport, and Physical Activity.

The purpose of this presentation is to discuss past experiences and research findings as they relate to previous and existing partnership attempts. Identification of common challenges, benefits, and offering a conceptual model that underlines a successfully tested approach will be the emphasis of the presentation.



# **Physical Activity Variables and Dynamics for PE Programs**

## RELATIONSHIPS BETWEEN REASONS AND BARRIERS FOR UNIVERSITY STUDENTS' LEISURE TIME PHYSICAL ACTIVITY

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Thursday, 20th June - 13:45: (Nexus 156) - Oral Paper

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*Dr. Vida Janina Cesnaitiene (Lithuanian Sports University), Prof. Saulius Sukys (Lithuanian Sports University), Prof. Arunas Emeljanovas (Lithuanian Sports University), Prof. Irena Valantine (Lithuanian Sports University), Dr. Zbigniew Marcin Ossowsky (Gdansk University of Physical Education and Sport), Dr. Brigita Mieziene (Lithuanian Sports University)*

Physical activity decreases with age, while most dramatic decline emerges between adolescence and young adulthood. Participation motives for physical activity can range from relatively intrinsic to relatively extrinsic ones. Based on Self-Determination Theory, intrinsic motivation refers to engaging in physical activity for pleasure and inherent satisfaction as extrinsic motivation refers to doing an activity for instrumental reasons, such as expecting rewards or avoiding punishment. The aim of study was to investigate relationships between reasons and barriers for university students' leisure time physical activity.

The study included students from three universities in Lithuania. The research sample included 707 students ranging in age between 18 and 25 years. University students' Leisure Time Physical Activity was assessed applying *Godin Leisure-Time Exercise Questionnaire* and motivation for physical activity was measured using *Reasons for Exercise Inventory*. Their barriers for physical activity (BFA) were measured using a 12-item scale which was constructed on the basis of previous studies. To reveal the relationships between the motives and the barriers, the variables of the barriers were categorized in a two-level (low and high) percentile, and the nonparametric Mann-Whitney test was used to assess the differences in the motives between barriers, and then the variables of the motives were categorized in a two-level (low and high) percentile, and the nonparametric Mann-Whitney test was used to assess the differences in the barriers between motives.

Students who had more internal barriers were less motivated to be physically active for stress reduction as well as for fitness and health improvement. The students who had fewer external barriers were more motivated to be physically active for fitness and health improvement.

The analysis of relationships between reasons and barriers for university students' leisure time physical activity might bring some clarity to the lack of motivation for physical activity and contribute to health promotion programs.

## Exploring variables towards empowerment in sustainable commitment in physical activities: the case of running in young adults.

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Thursday, 20th June - 14:06: (Nexus 156) - Oral Paper

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*Dr. François Potdevin (Univ.Lille, Univ. Artois, Univ.Littoral Côte d'Opale, EA 7369-URPSSS- Unité de Recherche Pluridisciplinaire Sport Santé Société, F-59000 Lille, France), Mr. Clement Llena (Univ.Lille, Univ. Artois, Univ.Littoral Côte d'Opale, EA 7369-URPSSS- Unité de Recherche Pluridisciplinaire Sport Santé Société, F-59000 Lille, France), Dr. Arnaud Waquet (Univ.Lille, Univ. Artois, Univ.Littoral Côte d'Opale, EA 7369-URPSSS- Unité de Recherche Pluridisciplinaire Sport Santé Société, F-59000 Lille, France), Prof. Keith Davids (Center for Sports Engineering Research, Sheffield Hallam University, Sheffield, UK), Dr. Christophe Schnitzler (Univ. Strasbourg, EA 1342 – E3S - Equipe d'accueil en Sciences Sociales, F-67000 Strasbourg)*

A key objective of physical education (PE) is to empower students for a healthy life style through a sustainable commitment in physical activity (PA). Exploring the key variables that impact long-term PA trajectories of young people is a challenge, which could improve PE learning strategies. The present study we aimed to identify the profiles of empowered young adults engaged in leisure running. Participants (N=174; 81 males, 95 females) were recruited during their running activity in an urban context. Inclusion criteria were: age (18-24 years old), a regular runner and no supervision by a coach. Other participants (N=167; 73 males, 94 females), who were not involved in sport and sharing similar socio-demographic characteristics were recruited in the same environment. All participants were asked to complete validated questionnaires providing data on their sport history, pleasurable memories, beliefs, self-efficacy, training and World Health Organization (WHO) knowledge, motivations and current PA quantification. Multiple Component and cluster analyses were performed on all the data. Results highlighted 3 clusters of participants with PA increasing gradually from cluster 1 to 3. Between-group analysis revealed significant differences between clusters 1 and 3 concerning motivations, beliefs, self-efficacy, pleasure memory, sport event participation and training knowledge. Cluster 2 pooled participants who regularly engaged in sport, with good participation in sport events, with those who did not engage in sport, with low motivation and self-efficacy scores. For all participants, the WHO recommendations were largely unknown and training knowledge had very low scores. Results revealed that empowerment of young people to undertake more PA is underpinned by differences in motivation and self-efficacy, which supports sustainability. Those who engage in regular PA had different knowledge levels and understanding of sport participation. Curriculum design in PE needs to target knowledge, skills and understanding of young people to empower their participation in PA and sport.

## Analyse of dynamics between PE curriculum, assessment, teaching conceptions and practices in three Swiss PE contexts

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Thursday, 20th June - 14:27: (Nexus 156) - Oral Paper

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*Prof. Vanessa Lentillon-Kaestner (University of teacher education, State of Vaud), Mr. Daniel Deriaz (University of teacher education, states of "Jura, Neuchatel and Bern", Bienne, Switzerland), Prof. Nicolas Voisard (University of teacher education, states of "Jura, Neuchatel and Bern", Bienne, Switzerland), Mrs. Mélanie Allain (Edmond Gilliard Secondary school, Yverdon-les-bains, Switzerland)*

**Background and purpose:**As underlined by some researchers,assessment, curriculum and teaching practices are the three fundamental dimensions of 'quality PE'. In French speaking part of Switzerland, the official PE curriculum is common for each state, but the modality of summative assessment differs between states: a promotional grade in the state of Geneva, a non-promotional grade in the state of Jura, and no grade (assessment book) in the state of Vaud. The purpose here is to understand the dynamics between PE curriculum, PE assessment guidelines, and teaching practices and conceptions in three states with different modality of summative assessment.

**Methods:** Data was collected with various tools in secondary schools in the states of Vaud (VD), Geneva (GE) and Jura (JU). In all, 214 teachers fulfilled the questionnaires, 3967 students fulfilled the questionnaires, 10 teachers were observed and interviewed before and after three observations in an activity unit. Finally, 26 students were interviewed after observation. Questionnaire data was analysed using statistical descriptive analyses and interview data with a thematic content analysis.

**Results:** Results showed a clear opposition in teaching practices and conceptions between PE teachers from the state of Vaud (no grade, book assessment) with a valorisation of long-term objectives, such as health, pleasure and the development of physical activity outside PE lessons, and teachers from the state of Geneva (promotional grade) with a valorisation of motor learning in PE lessons.

**Conclusion and implications:**Various dynamics emerged between curriculum, assessment, teaching practices and conceptions in the three PE contexts. It is important not to minimize the influence of summative assessment guidelines on teaching practices and conceptions. An assessment reform was recently conducted on assessment books in the state of Vaud and it would be interested in future research to estimate the development of teaching practices and conceptions in this state.

# **Sport and PE for Development**

## Analyzing a Canadian Sport for development program's logical model with key actors' perceptions: The case of Pour 3 Points organization in Montreal

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Thursday, 20th June - 13:45: (Nexus 157) - Oral Paper

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*Prof. Tegwen Gadais (University of Quebec in Montreal), Mrs. Mariann Bardocz-bencsik (University of Physical Education, Budapest,), Dr. Wiliam Falcao (Laval University)*

**Background:** The purpose of this study was to analyze the logical model (LM) of a Canadian sport for development organization (Pour 3 Points: P3P) that provides training for secondary coaches in low socioeconomic communities in Montreal. **Methods:** Key actors (i.e., coaches, program administrators, school directors and sport coordinators; N=22) were interviewed about their perceptions of the different components of the organization's LM (i.e., context, initial problem, needs, objectives, input, output, effects and impacts). **Results:** Findings show that the actors have similar understandings regarding the targeted problem and context, but had different perceptions regarding its activities. The respondents also made suggestions to improve the program, such as clarify objectives, reinforce communication and partnership with schools. These findings allowed for recommendations to redesign and improve the organization's LM. **Conclusion:** In addition, these findings can help researchers and SDP administrators reinforce essential program structures and activities for better management, evaluation, and improved impact on communities.

## The Analysis of Research hotspots and Trends in Schools' Physical Education Essays from 2014 to 2018

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Thursday, 20th June - 14:06: (Nexus 157) - Poster Presentation

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*Ms. FANGYUAN JU (Department of Physical Education, National Taiwan Normal University), Prof. Ching-Ping Lin (Department of Physical Education, National Taiwan Normal University)*

The purpose of the study is to investigate the research hotspots and current trends in Chinese school physical education. 236 essays, selected from Journal of Physical Education during the period of 2014 to 2018, were analyzed through content analysis. Themes, subjects, methods and participants were encoded for analyzing. The results show: 1) Background: a. The research field focused on school physical education represents 30% in the whole Journal during the period; b. Authors coming from Guangdong, Shanghai and Beijing represent the major provinces; c. The number of female authors has been increasing; d. The majority of authors are qualified with doctoral degree and specialized in education; e. Interdisciplinary studies have been becoming mainstream. 2). The majority articles focused on conceptual discourse description, empirical studies are rare. 3) In terms of school physical education, college students are paid more attention currently, young children are neglected. 4) Analytical review, in terms of method, has been applied in the most parts and qualitative research methods or mixed ways are rarely used. 5) Teaching in PE has been focused mostly, however, the physical education teacher education has not been considered as important as teaching.

**Keyword:** school sports; content analysis; research hotspots; trend analysis

## **Inquiring into Indigenous Worldviews: Authentically Implementing Indigenous Knowledges into Physical Health Education Teacher Education**

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Thursday, 20th June - 14:27: (Nexus 157) - Oral Paper

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*Mr. Derek Wasyliv (McGill University), Dr. Lee Schaefer (McGill University), Dr. Jordan Koch (McGill University)*

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Historically the literature in Physical Health Education Teacher Education (PHETE) has been dismissive of Indigenous knowledges and omitted settler-colonial histories from its programming – a trend that remains intact despite the Truth and Reconciliation Commission (TRC) of Canada’s explicit Calls to Action to reduce the Indigenous/non-Indigenous gap in education and develop culturally appropriate educational programs. Moreover, the fact that PHETE has habitually privileged scientific discourses about the body and performance over social justice issues has further insulated PHE teachers from thinking critically about their craft and/or linking their subject matter to the significant role(s) it played in the advancement of broader settler-colonial agendas in Canada. Collectively, this has contributed to a professional environment in which PHE teachers often experience frustration, anxiety, and apathy in their classrooms. In response to the current shortcomings of culturally appropriate programs interwoven with Indigenous ways of knowing in Canada, this article presents a narrative inquiry into the experiences of two knowledge holder in Kahnawá:ke. This study is rooted in a Deweyan theory of experience and works from a pragmatic ontology. Specifically, we aimed to better understand how Indigenous ways of knowing may be authentically incorporated into PHETE. Amelia and Philip, the knowledge holders and co-researchers within this study came alongside this work having an immense understanding of how wellness has been and continues to be conceived and negotiated in the community. Particularly, Amelia and Philip have deeply contextual and personal relationships with both the educational and political landscape within Kahnawá:ke. The personal narratives of Amelia and Philip, along with the collaborative inquiry into those narratives, revealed three key threads: (a) Indigenous knowledges are diverse, multifaceted and complex (b) Indigenous knowledges are locally-grounded (c) Implications for PHETE are contextual and geographically diverse. The article concludes with recommendations for PHETE from Amelia and Philip from a Kahnawá:ke perspective.



# **Student Voices in PETE**

## Linking theory to practice: A Constructivist Approach in a University Extension Sport Project

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Thursday, 20th June - 13:45: (Nexus 158) - Oral Paper

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*Dr. Michele Viviane Carbinatto (University of São Paulo), Ms. Nayana Ribeiro Henrique (University of São Paulo), Ms. Mellina Souza Batista (University of São Paulo), Ms. Tamiris Lima Patrício (University of São Paulo)*

**Background and purpose:** University extension programs are known for educational, cultural and scientific processes that should relate the inseparability of extension, research and education. As extension programs involve the articulation between the educational institution and society (Forproex, 2012), it is important for physical education teacher education (PETE) and sports coaching (SC) undergraduate programs because it provides mentoring and reflection-in-action for those students (Lyle, 2005; Jones, 2006; Cotê, 2006). This paper analysis the participation of three students of an extension sholarship program in a Gymnastics for All (GfA) extension project that followed a constructivist approach (Freire 1996;1998).

**Methods:** This study was participatory action research project. The participants included two pre-service PETE and one pre-service SC student, one lecturer and four assistants. Data collection included weekly session observations, weekly collaborative lecturers and assistants' meetings, one private interview with the students. Data analysis was inductive and ongoing using constant comparison methods.

**Results:** Four aspects represent the findings: mediated learning in GfA was challenging, as it was difficult to know the limit between indicate or command teaching-learning process; the creativity process was difficult, because it was a non-linear process and needed deep study about the theme, purpose and gym movements; the constructivist approach was seen valuable and the students showed interest to apply the method in other sport classes; teaching-learning gymnastics processes became interesting as it allowed the students to think about a wide range of apparatus possibilities.

**Conclusion and applications:** Cassidy and Rossi (2006) suggest apprenticeship and mentoring as important sources of coaching competencies and we noticed the students developed the competence to deal with diverse ideas and continuing studying attitude. Besides, Oliveira, Silva e Costa e Silva (2018) and Dowdell (2010) indicated that we must encourage students to get involved to gymnastics and the extension project seemed to help with that.

## **The influence of teacher education among pre-service teacher's in developing practical knowledge.**

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Thursday, 20th June - 14:06: (Nexus 158) - Oral Paper

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*Dr. Peter Åström (Umeå University, Department of Education, Umeå School of Sport Sciences), Dr. Magnus Ferry (Umeå University, Department of Education, Umeå School of Sport Sciences)*

In order to plan, interact and reflect on teaching, pre-service teachers (PSTs) use practical knowledge and personal beliefs as a framework (Levin & Hee, 2008). Practical knowledge refers to the complex sets of understanding that teachers use to shape and direct their teaching (Elbaz, 1981). In this study, we focus on the practical knowledge PSTs develop about their teaching and learning during their first PEH subject matter course of physical education teacher education (PETE) program. The practical knowledge they construct, the sources this derives from, and if there are differences between men and women, are areas that will be illuminated in this study. Data consists of interviews with 71 first-years PSTs from three cohorts building on earlier written assignments in which PSTs, were supposed to describe ten significant didactical milestones (DMs, practical knowledge) that would guide their future teaching. In the interviews, the PSTs were asked to specify the sources of their DM's. The analysis of the interviews was both qualitative with content analysis, and quantitative for comparisons of frequencies regarding their sources. The results show that the sources of their DMs can be categorised into four different areas that influence their practical knowledge; general education studies, specific PE courses, earlier teaching-/coaching experiences, personal athlete-/student experiences. The main influence among the students in this study are related to content given through general education studies and the specific PE subject matter course. There is some significant differences between women and men's sources. Women in a higher degree specify sources from the PE subject matter course and men in a higher degree specify sources from their earlier personal experiences. These results shows that practical knowledge is a highly socially constructed process and considerations regarding PSTs earlier experiences need to be discussed and challenged during PETE.

# Participative content and competency modelling in physical education teacher education

Thursday, 20th June - 14:27: (Nexus 158) - Oral Paper

*Dr. Mareike Ahns (University of Salzburg)*

## Participative content and competency modelling in physical education teacher education

Dr. Mareike Ahns, University of Salzburg, Austria

### Introduction

For physical education teacher education (PETE) no uniform understanding of the characteristic knowledge exists. Furthermore, there is no competency approach that can provide the basis for a comprehensive competency modelling. Therefore, through preliminary studies, a competency taxonomy was developed (Erlanger Competency Taxonomy, EKSpO). The taxonomy has a three-dimensional structure: processes, requirement levels and content (Sygusch et al., i. prep.) and serves as a theoretical basis for a phase-overlapping competency modelling in university (phase I) and internship (phase II). The research questions are: 1) Which subject based content can be defined for PETE 2) How are subject based learning objectives modelled along the EKSpO taxonomy? 3) In which phase (I/II) of PETE are the learning objectives to be located?

### Design

Using a document analysis, the content of the representative literature was pre-structured. Next, an action research approach was conducted (Altrichter & Posch, 2014). A team of PETE experts was formed for 15 expert discussions. The empirical data consisted of focus group protocols and their audio transcripts. The data analysis was carried out using content structuring analysis, summarizing content analysis as well as explicative content analysis.

### Results

The experts defined and justified the content categories *sport science*, *sport didactics* and *fields of activity* for PETE. In addition, the experts differentiated the related topics *training science*, the didactical concept *multi-perspectivity* and the activity field *activities on/with apparatus* and argued the selection background on systematic efforts. Furthermore, the experts formulated learning objectives at graduate level (phase I/II) using the EKSpO taxonomy.

### Discussion

The results complete in an exemplary way the desideratum for content determination in PETE. The participative generated outcome can be regarded as a valid component for further completion and as an exemplary contribution to qualitative PETE development.

### Literature

Sygusch, R., Ahns, M., Bracher, B., Hapke, J., Liebl, S., Muche, M. et al. (Eds.). (in preparation). *Kompetenzorientierung im Sport. Grundlagen, Modellentwurf und Praxisbeispiele zu Sportunterricht, Sportlehrerbildung & Trainerbildung* (Competence orientation in sport. Basics, EKSpO competency taxonomy and practical examples for PE, PETE & sports training).

Altrichter, H. & Posch, P. (2014). Innovation in Education through Action Research. In T. Stern, F. Rauch, A. Schuster & A. Townsend (Eds.), *Action Research, Innovation And Change: International perspectives across disciplines* (pp. 8-26). Taylor & Francis.

# **Data for Analyzing Sport**

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## Criterion for evaluating mid-game tackles of American football

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Thursday, 20th June - 13:45: (Nexus 241) - Oral Paper

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*Dr. Hirokazu Matsuo (University of Tsukuba), Mr. Tsuyoshi Matsumoto (University of Tsukuba)*

The purpose of this study was to “propose an objective criterion for evaluating mid-game tackles based on recorded data of tackles occurring in games”. In recent years, the issue of how to coach safe tackling techniques in American football has become markedly important. In the United States, coaches are being urged to coach according to HUT (Heads Up Tackling) technical coaching guidelines as a means of keeping player’s head from impact during tackles and preventing head and neck trauma during games. However, views on the coaching methods explained therein vary widely, and the guidelines themselves refer only to practice drills, in effect failing to indicate the steps to technical improvement that would typically manifest mid-game. Furthermore, there is no mention of an objective criterion for evaluating tackles occurring mid-game either, leaving coaches with the tasks of drawing up coaching plans and deciding for themselves how to evaluate tackles in order to determine the effects of their coaching. Confirmatory factor analysis using structural equation modeling was conducted on data obtained from one team belonging to Japan’s top-level American football league comprising 492 mid-game tackles, which were recorded during all 32 fall season games from 2014 to 2017. The results made it apparent that the “shoulder tackle” technique as it occurs during American football games can be broken down into six sub-components that satisfy conditions of both content validity and logical consistency based on the positional structure of the tackle and that the 12 items used to evaluate these sub-components exhibit high factorial validity. Thus, using these 12 items will make it possible to evaluate mid-game tackles. Consequently, by consecutively evaluating mid-game tackles and acquiring feedback on the effects of their coaching, coaches can engage in more appropriate coaching.

## The meaning-making of user-generated data in running: an interview study with digital competent runners

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Thursday, 20th June - 14:06: (Nexus 241) - Oral Paper

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*Dr. Urban Carlén (University West)*

Running is no longer just any physical activity. In the western world, digital competent runners use digital tools, such as sport watches and associated apps, to generate data that is represented in visual graphs. Digital data is constituted as *running performance* (e.g. time, distance, pace, track layout) and *health condition* (e.g. pulse rate, calorie- and oxygen consumption) measured by GPS and sensors that are attached on the arm wrist or chest. However, little is known about how runners make use of their running data. In a sense, such user-generated data extends our idea of what running is about as runners more often share digital competencies related to their capabilities in running. The changed conditions among runners who share digital competencies constitute a pedagogical practice that they themselves creating. Therefore, we need to understand the use of this data and how it becomes incorporated in running. Hence, the aim of the study is to explore the use of digital data that runners adopt in order to make meaning of running. The main research question is: *How do runners adopt the digital data generated by using sport watches and apps in order to make meaning of running?* Twelve runners contributed with knowledge about their running, talking about themes like running history, goals in running, digital competence, knowledge sharing and running performance, and their use of digital data. The data material was analyzed by using Practical Epistemological Analysis (PEA). Meaning is not to be found in the world itself, but it is specifically located in the social practice that individual runners are involved in. The result indicates that digital competent runners make meaning of using just a few digital data which digital tools provide. Relevant data for all participating runners consists of total time, intervals, total distances and pace as well as the pulse, whereas data such as calorie- and oxygen consumption are not perceived as relevant due to the miscalculation that some tools generate. Runners are aware of such digital data, but they need further educational support to make meaning in accordance with their running practice. Runners compile and compare their digital data over time as they view their own progression in accomplished training for a specific distance or for well-being. For maximal support in running with digital tools, the individual runner needs to engage together with other runners and physical expertise to make use of more advanced data.

# **Writing Quality Research Abstracts**



## **“Writing Quality Research Abstracts: Everything You Need to Know, But Were Afraid to Ask!”**

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Thursday, 20th June - 13:45: (Nexus 242) - Oral Paper

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*Prof. Hans van der Mars (Arizona State University), Dr. Thomas McKenzie (San Diego State University)*

A high-quality abstract improves chances of a research submission being reviewed favorably, allows reviewers to make more informed judgments, and can improve the quality of presentations at professional conferences. This session focuses developing quality abstracts and ensuring that relevant information is included and presented coherently and precisely. Topics include: (a) Rationale and research question(s); (b) Participants and settings; (c) Research design, data collection and analysis; (d) Results, and (e) Discussion, implications, and conclusion(s). Sample abstracts will be provided, and participants will actively engage in critiquing them.

# **Symposium 4**

# The Collaborative Redesign of School Physical Education and Teacher Education

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Thursday, 20th June - 16:40: (Nexus 239) - Symposium

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*Prof. Ann MacPhail (University of Limerick), Dr. Hal Lawson (University at Albany-SUNY), Dr. Cassandra Iannucci (Deakin University), Dr. Deborah Tannehill (University of Limerick), Ms. Jenna Lorusso (University of Western Ontario)*

Ann MacPhail, University of Limerick, Ireland; Hal A. Lawson, University at Albany, SUNY, USA

## **Background and purpose of the proposed presentation**

Drawing on a collective action project, this symposium shares a collection of work that provides an international framework for strategic planning, proactive leadership, and adaptive designs that encourages PE and PETE professionals and other key stakeholders to perform regular assessments of strengths, weaknesses, opportunities and threats. The core principle throughout the symposium is that every attempt to reform, improve, and redesign school PE necessitates companion, coordinated improvements in PETE.

## **A summary of the main points of the presentation**

‘Grand Challenges’ identified by the symposium presentations illuminate dramatic and somewhat variable changes underway in nations around the world. While modest reforms and incremental improvements in PE and PETE may be fit for purpose, these grand challenges also may necessitate the strategic redesign of PE, PETE, and their relations.

## **How the proposed presentation addresses one or more of the conference aims and themes**

The symposium clearly aligns with the conference theme of ‘Building Bridges for Physical Activity and Sport’. There are manifest needs for a unifying agenda founded on common purpose. Grand challenges confronting PE and PETE offer this unifying potential. Manifest in some form in nearly every nation, they facilitate the development of common purpose. National in one respect, these challenges signal an international agenda.

## **Conclusions from and implications of your presentation for practice, policy, or subsequent research.**

Each grand challenge is an adaptive problem without easy answers. The work that lies ahead is not merely implementation of what may be considered as optimal practice models and strategies. It also involves strategic innovation and bold redesign in schools and community education systems which are like moving targets because their leaders also are wrestling with adaptive problems caused by emergent grand challenges.

## **Paper 1: The public policy challenge: Preparing and supporting teacher educators and teachers as change agents and policy entrepreneurs**

Jenna R. Lorusso, Faculty of Education, Western University, Ontario; Hal Lawson, Schools of Education & Social Welfare, University at Albany, State University of New York; Suzanne Hargreaves Health and Wellbeing and Outdoor Learning, Education Scotland; Andrew Morgan, Edmonton Public School Board

*Background and purpose:* Through public policy, governments influence PE, PETE, and their relationship. Alongside direct influences, indirect ones spawned by policy neglect are especially important. Indeed, front-line practice in PE and PETE can be viewed as policy-in-action. Sub-optimal practice thus implicates sub-optimal policy, indicating needs for advocacy and improvement founded on a solid understanding of the policy process. Unfortunately, public policy study, advocacy, and change have not been mainstays in PETE programs or in school-community settings. Thus, the grand challenge concerns how PE/PETE can move from neglecting policy to prioritizing it. Policy entrepreneurship by PE/PETE professionals provides a compelling, practical strategy.

*Summary of main points:* Strategic actions - such as telling compelling stories about policy problems to stakeholders, developing feasible policy solutions in anticipation of policy problems, and strategically adjusting to the particular political nature of the policy context - are keys to opening windows of opportunity for policy change.

*Conclusions and implications:* Aligned with the conference subtheme of professional preparation, we suggest that if PE/PETE professionals are to come to prioritize policy work and see themselves as active agents in the process, a policy focus must be emphasized in the redesign of PETE and PE, which necessitates innovative professional development for professionals who presently have little policy training.

## **Paper 2: Meeting the Challenges of Standards-based Curricular Reforms**

Deborah Tannehill, University of Limerick, Ireland; Peter Iserbyt, University of Leuven, Belgium; Lorri Dunn, Seattle Public Schools, USA

*Background and purpose:* Standards-based curricular reform poses challenges for physical education (PE) teachers and physical education teacher educators (PETE) internationally. The purpose of this presentation is to present four key issues internationally at the forefront of the PETE discourse before suggesting recommendations for preparing teachers to teach towards the standards and students meeting them.

*Summary and main points:* Four key issues will be discussed: (1) there is no one set of standards to guide what students should know as a result from participating in PE, (2) there is limited evidence of students actually achieving the standards, (3) not much is known about accountability systems put in place facilitating students' achievement of standards, and (4) research on whether PETE programs are able to prepare teachers for teaching towards the standards is lacking.

*Conclusions and implications:* Meeting standards-based reform challenges requires an international collaboration in terms of sharing best practices and proposing a research agenda that will impact PE and PETE internationally.

## **Paper 3: The Professional Socialization Challenge: Considering Teacher Education for a Preferable Future for Physical Education**

Cassandra Iannucci, Deakin University, Australia; K. Andrew R. Richards, University of Illinois at Urbana-Champaign, USA; Eileen McEvoy, University of Jyväskylä, Finland; Angela Simonton, East Baton Rouge School District, USA

*Background and purpose:* Occupational socialization theory is a framework for studying the physical education teacher workforce through their career-long socialization including teacher recruitment, physical education teacher education (PETE), and continuous socialization in school settings.

*Summary of main points:* We consider three specific challenges related to professional preparation including (a) *passive recruitment*, (b) *challenging preservice teachers' preconceived notions*, and (c) *negotiating an overcrowded university curriculum*. We first argue that PETE recruitment continues to be a passive process reinforcing a stagnant discourse and perpetuating existing beliefs primarily focused on sport-based models of physical education. The challenge is to actively recruit more diverse preservice teachers. Individuals then enter PETE with well-developed values and beliefs about teaching and physical education that are difficult to change. The challenge is to develop and implement PETE program curricula to effectively encourage preservice teachers to reconsider their initial sub-

jective theories. Third, institutional demands and accreditation requirements reduce contact time and flexibility in PETE program, which potentially inhibits the ability to effectively prepare preservice teachers for the technical and sociopolitical realities of teaching.

*Conclusions and implications:* Addressing these challenges related to recruitment and teacher preparation reinforces a necessity for strategic innovation and for teachers and teacher educators to work collaboratively to reconsider and reform physical education and PETE.

**Paper 4: The Research and Development Challenge: Organizing and Mobilizing Researchers in Response to, and Anticipation of, Teachers' Needs, Priorities, and Demands.**

Ann MacPhail, University of Limerick, Ireland; Håkan Larsson, Swedish School of Sport and Health Sciences; @Im-Sporticus; Tim Fletcher, Brock University, Canada

*Background and purpose:* Despite PE teachers and teacher educators being bound by similar missions, tasks, and objectives, myriad political and professional factors serve to misalign the work of both groups. The purpose of our session is to identify processes that may facilitate how teachers and teacher educators can be organised to occupy the same space as members of a sustained community of practice. Our session aligns with the conference theme: *Professional preparation for health and physical education, sport and physical activity.*

*Summary of main points:* We begin by using a teacher's narrative to illustrate how current conceptualizations of teaching and teacher education create boundaries around the work and needs of those involved. Collectively, we resist this view, and suggest that representing the processes of teaching and teacher education on a continuum may be useful in helping to blur the boundaries, and in making the identities and work of teachers and teacher educators more fluid. We present an illustrative case from Sweden to identify areas of promise and caution.

*Conclusions and implications:* The continuum may help in offering a more democratic structure and epistemology of teaching and teacher education, whereby the needs of teachers are given greater value and privilege alongside those of teacher educators.

# **Roundtable 2**

## Preparing Future Physical Activity Professionals to Support Social and Emotional Learning

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Thursday, 20th June - 16:40: (Nexus 126) - Roundtable discussion

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*Dr. Val Altieri, Jr. (Boston University), Dr. John McCarthy (Boston University)*

While there has been a proliferation of youth programming that exists outside of traditional physical education, there are few efforts to provide quality training and education for sport-based youth development programs (Whitley, McGarry, Martinek, Mercier, & Quinlan, 2018). One way to promote quality training is through service learning courses. Whitley, Walsh, Hayden and Gould (2017) examined students' experiences in a physical activity-based service-learning course and found several positive learning outcomes related to the students' experiences. Whitley et al. (2017) highlight the need for research on service-learning particularly in physical activity-based settings. This roundtable will discuss how a university run service learning program develops future professionals to be able to support social and emotional learning. During this roundtable, preliminary findings will be shared from the research that investigates the experiences of these graduate students. The study aims to learn how to better prepare future physical activity professionals to support social and emotional learning. The findings are derived from the qualitative study of three consecutive cohorts of five to seven graduate student facilitators. Interviews of the graduate students were conducted at the end of each year of the program.

## Developing a Partnership Between PETE and Public-School PE Program: One Attempt Tested.

Thursday, 20th June - 16:51: (Nexus 126) - Roundtable discussion

*Prof. Pat Hardin (William Paterson University), Dr. Michael Hodges (William Paterson University)*

For decades, researchers have called for improved coordination between public school physical education (PSPE) programs and physical education teacher education (PETE) programs (Darling-Hammond, 1994; Rice 2002; Siedentop & Locke, 1997). Researchers explain that neither school programs nor teacher education programs are likely to be adequate if created in isolation (Siedentop & Locke, 1997). Yet, only one partnership was found to have achieved systemic success (Prusak et al., 2010). Thus, the purpose was to examine the assembly of one PETE and PSPE program partnership and determine effective methods aiming to deliver a step-by-step model for others to follow.

One PETE professor and PSPE district were examined over one academic year. The PSPE program adopted the PETE programs' teaching methods and curricular models, followed by multiple professional development sessions organized by the PETE professor. Independent pre- and post- observations were conducted. Semi-structured interviews of teachers ( $n=8$ ), and student questionnaires ( $n= 345$ ) were conducted. Data were analyzed using constant comparison (LeCompte & Preissle, 1993) and descriptive statistics.

Initial teacher observations yielded co-teaching, long sport units, large-sided games, and long bouts of instruction was occurring by the majority of staff members. Significant improvements in teacher procedures with some positive changes in their practices were witnessed. Three common themes emerged: (a) Finally Some PD, (b) Too Much, Too Soon, and (c) The Jury is Still Out. Student responses to the changes were mostly positive, with 49% indicating, "the activities, games we play are fun", 11% feeling the "units offered should be changed."

The partnership ascended from trust and is suggested to form naturally. Although empirical evidence indicates accountability to be critical for partnerships (Prusak et al., 2010), researchers found a limit on how much can be delegated "top-down". A step-by-step model is presented for PETE and PSPE programs to follow for future attempts.



## Physical Activity and Psychosocial Adjustment Among 1st and 2nd year Undergraduate Students

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Thursday, 20th June - 17:02: (Nexus 126) - Roundtable discussion

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*Dr. Vanessa Mikan (Southwestern University), Dr. Scott McLean (Southwestern University)*

**Background:** Physical activity levels decrease from adolescence to the time of entering college (Kwan et al., 2013; Calestine et al., 2017). The ability of students transitioning to college to effectively balance social, emotional and academic responsibilities may be related to physical activity level. The purpose of this study was to evaluate how participation in structured university physical activity courses assists students in the transition to college.

**Methods:** A convenience sample of first and second year undergraduate students was recruited to form two groups: those participating in structured physical activity (SPA) through university activity courses (52 men, 99 women), and those who engaged in non-structured physical activity (NSPA) (60 men, 77 women). Daily physical activity level was measured using the International Physical Activity Questionnaire (IPAQ) Short Form. Student adjustment was measured using the Student Adaptation to College Questionnaire (SACQ). Separate 2x2 ANOVAs were used to compare the dimensions of adjustment (academic, social, personal-emotional, and attachment) between groups and genders.

**Results:** Academic adjustment scores interacted between physical activity groups and gender ( $p=0.007$ ). Females in SPA group reported 8% higher academic adjustment scores ( $p=0.001$ ) than those in NSPA. There were no significant differences between SPA and NSPA male academic adjustment scores ( $p=0.441$ ). Social adjustment scores were 15% higher in NSPA group than SPA ( $p=0.000$ ) and were moderately dependent on gender ( $p=0.077$ ). NSPA male and female social adjustment scores were (20% and 11%, respectively) higher than those within the SPA group. Comparison of full scale scores between SPA and NSPA varied between genders ( $p=0.004$ ). Female full-scale scores were not different ( $p=0.592$ ). However, males in NSPA group reported higher full scale adjustment than SPA ( $p=0.003$ ). Males and females reported similar adjustment scores across the personal-emotional ( $p=0.014$ ) and attachment ( $p=0.950$ ) dimensions in both physical activity groups.

**Conclusion:** Students transitioning into college benefit from participation in structured university activity courses.

## **Dearborn SHINES: A framework for a comprehensive school-health intervention**

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Thursday, 20th June - 17:13: (Nexus 126) - Roundtable discussion

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*Dr. Erin Centeio (University of Hawaii at Manoa), Dr. Jeanne Barcelona (Wayne State University), Ms. Christine Pedder (Wayne State University), Ms. Hayley Mckown (University of Hawaii at Manoa)*

Children living in low-income, urban dwellings are at higher-risk for health-related issues including obesity and cardio-metabolic disorders. To date, several school-based interventions have successfully modified health-related behaviors in children, but few have taken culture into account throughout intervention development. Further, no known intervention has aimed to increase the lifelong health of Arab-American children. Accordingly, the purpose of this presentation is to provide insight into how a culturally relevant and multi-component school-health intervention could impact the physical activity and eating behaviors of Arab-American students and their families.

The authors will discuss the *Dearborn SHINES* intervention, which is guided by the Whole School, Whole Community, Whole Child (WSCC) model and encompasses culturally relevant nutrition and physical activity programming across the levels of student, family, and school. This presentation will discuss the five programming components as they relate to multiple conference themes: 1).*Physical Activity and Public Health* (classroom PA, nutrition, gardening, and family/community involvement 2) Physical education and Physical Literacy (physical education enhancement) and 3) Youth and Community Development (afterschool physical activity programs) as well as share successes and barriers to implementing a whole of school intervention.

## **“It has to make sense”: Identification of motivational factors associated with teachers’ sustained use of classroom-based physical activity. Results from a qualitative study.**

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Thursday, 20th June - 17:24: (Nexus 126) - Roundtable discussion

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*Ms. Louise Stjerne Knudsen (University of Southern Denmark), Dr. Thomas Skovgaard (The University of Southern Denmark), Mr. Thomas Bredahl (University of Southern Denmark)*

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### **Background**

Schools are increasingly called upon to promote physical activity (PA) and health among children and young people. A viable component of many school-based initiatives is *Classroom-Based Physical Activity* (CBPA) putting teachers at centre stage as facilitators. Typically, teachers have a positive view of CBPA and anticipate positive student outcomes. However, integrating PA into teaching routines is not without difficulty, and teachers generally ask for more support. However, little is known about the best ways to support teachers in their efforts to integrate classroom-based physical activity into their professional practice. The purpose of this study was to identify motivational factors associated with Danish schoolteachers’ sustained use of classroom-based physical activity and to point out best ways of support.

### **Methods**

Through a qualitative study design, data were collected via in-depth semi-structured interviews. In order to gain a rich and detailed perspective on motivational factors and usable types of support, the study included teachers across all school-subjects, grade levels, various ages and working experience. Thematic analysis was used as analytical tool.

### **Results**

Thematic analysis of nine in-depth interviews revealed that concepts such as *meaning* and *meaningful* CBPA as well as teachers’ individual didactical skills and reflections stood out as major motivational factors associated with teachers’ sustained use of and commitment to classroom-based physical activity. Teacher collaboration; sharing of ideas; course participation and PA related school projects were all pinpointed as usable support.

### **Conclusions**

Teachers in this study identify motivational factors that may support their sustained use of CBPA. Findings has the potential to address key factors of importance for designing future school-based physical activity initiatives. Findings can also help frame new research questions and inform stakeholders, such as school management, decision-makers and subject advisers on usable ways to support teachers in their efforts to integrate classroom-based physical activity.

## **Improving Students' Academic Achievement and Social and Emotional Learning through a Before and After School Physical Activity Program**

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Thursday, 20th June - 17:35: (Nexus 126) - Roundtable discussion

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Dr. Tan Leng Goh (Central Connecticut State University), Prof. Carol Ciotto (Central Connecticut State University),  
Dr. Marybeth Fede (Southern Connecticut State University)

Physical inactivity is a leading cause of overweight and obesity among children. This presentation addresses collaboration between two Connecticut State Universities and two public schools implementing a before school physical activity (PA) program. The study focuses on students' learning and application of PA and its effect on cognitive, and social and emotional learning (SEL). The fitness-based PA program was implemented three days per week, for eight weeks each semester in 2018-2019, with opportunities for students to participate in 20-30 minutes of moderate/vigorous PA. Students wore heart rate monitors during the program to ensure they were in their target heart rate zones. Pre and post tests were used to measure students' academic performance and SEL. Main points include an overview of the background, purpose and development of the program, the process and steps for implementation, the assessment and analysis of data, and future ideas. Considering current trends in the reduction of time allocated for PA in schools, results of the study and ongoing discussions among school stakeholders may have a broader influence on school policies that will have direct impact on students. Our goal is to contribute to the research field, as well as to apply our results within practice.

# **Professional Preparation for Teacher and Coaches**

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## **“First, I make sure they trust me”. Pre-service teachers’ optimism towards ‘fixing’ inequalities**

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Thursday, 20th June - 16:40: (Nexus 237) - Oral Paper

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*Mrs. Corina van Doodewaard (Windesheim university of applied sciences), Dr. annelies knoppers (Utrecht University)*

Despite the need and promises for worldwide equitable education, PETE-faculties and PE teachers continue to struggle to make their formal curriculum and practices inclusive (e.g., Gerdin et al, 2019; Hill et al, 2018). Inequality is strongly connected to complex processes, assumptions and misrecognitions about capability that are embedded in practices and contexts in which preservice teachers learn and enter the field (Burke, Crozier & Misiaszek, 2018; Evans & Davies, 1993/2017). Internships are a site where PETE-students confront their taken-for-granted assumptions about ‘potential’ and ‘capability’, to figure out how these might be identified, and to determine what counts as ‘potential’ and ‘capable’ in these contexts. The purpose of this study was to explore discourses that guided preservice teachers in their constructions of educational inequalities and what they perceive needs to be done to achieve more equitable practices in PE. The first author conducted individual video stimulated interviews with 11 preservice teachers to stimulate in-depth reflections of their own practices during their internship in Dutch secondary schools. We analysed the data inductively using open, focused and subsequently, selected coding and looked for themes in the rationalities used by preservice teachers to reflect on inequalities in PE-practices. A dominant theme that emerged consisted of what we call ‘cruel optimism’ towards professionalism. To ‘fix’ the inequity gap these preservice teachers practiced what they called ‘care’ by drawing on dominant discourses of ability, gender and ethnicity to categorize students’ capabilities. Paradoxically they also embraced conditions that produced these categories. This suggests constructions of professionalism may strengthen and simultaneously undermine values that preservice teachers believe are part of ‘good teaching’. We critically reflect on these findings and discuss their implications for internships and supporting curricula in PETE-faculties.

## Teachers' Community of Practice as a Site of Curriculum Innovation

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Thursday, 20th June - 16:55: (Nexus 237) - Oral Paper

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*Dr. Marie Clonan (City of Dublin Education and Training Board), Prof. Mary O' Sullivan (University of Limerick)*

A critique of Communities of Practice (CoP) is that they can be reproductive rather than innovative or transformative of teachers' practices and beliefs (Kirk and Macdonald 1998). The Urban Schools Group (USG) is a CoP of Physical Education (PE) professionals who teach in schools with limited PE facilities and challenging student populations. The study examined how the community of PE teachers piloted a curriculum innovation which tried to inspire each student to achieve their best, regardless of their ability or context. The research questions examined the perceived changes to teachers' practices, understandings and beliefs arising from engagement with this curricular innovation project and the USG. The theoretical framework underpinning the work is Lave and Wenger's (1993) CoP and Wenger-Trayner and Wenger-Trayner's Landscape of Practice (LoP) (2015). LoPs consist of a complex system of CoPs and the boundaries between them.

The research design was a case study of an established CoP. There were two sources of data to address the research question: documentation (USG meeting minutes, discussions at meetings, teacher and student artefacts, researcher and teacher reflective journals, pupil reflections) and interviews (individual and focus groups with the teachers). Data were analysed using a 'constant comparison' approach using seven phases (Maykut and Morehouse 1994).

Results suggested that the teachers reported changes to their classroom practices as a result of their engagement with the curricular innovation via their interactions as a CoP. Teachers and pupils articulated their increased awareness and abilities to challenge what they identified as patterns of marginalisation in relation to their PE experiences. This study should interest those involved in the landscape of PE practices as the data show the capacity of a CoP to disrupt patterns of reproduction and instead provide opportunities to innovate and transform Physical Education experiences of young people.

# Providing positive sporting experiences for children: Evaluating the impact of a novel coach development intervention (MASTER) for improving coaching practices and player outcomes in junior sport.

Thursday, 20th June - 17:10: (Nexus 237) - Oral Paper

*Dr. Narelle Eather (The University of Newcastle), Prof. Philip Morgan (The University of Newcastle), Dr. Drew Miller (The University of Newcastle), Mr. Bradley Jones (The University of Newcastle)*

## *Background and purpose*

High player dropout from youth sport is a global issue. Providing children with positive sporting experiences may be key to maximize their development, enjoyment and success, and for improving player retention. Community sport coaches need access to programs and coaching strategies that ensure they are suitably prepared and supported in their coaching roles, and develop the core coaching competencies needed to deliver high quality sport programs. The aim of this study was to investigate the impact of a novel 8-week coach development intervention (MASTER) on coaching practices of community level netball coaches, and player outcomes.

## *Methods*

The randomized controlled trial involved sixteen netball coaches and their players ( $n = 100$ ; 8-15 years) from one community level netball club (Australia, 2018). The 8-week multi-component intervention included a 4-hour workshop, on-going mentoring, modelled training sessions, peer assessments and group discussions. The MASTER coaching framework is underpinned by positive coaching and game-based coaching pedagogy, and aims to educate coaches on how to implement and operationalize six evidence-based coaching elements. At baseline and immediate post-intervention coaches were filmed and evaluated using a modified version of the Coach Analysis Intervention System and completed a questionnaire assessing coaching competence and confidence. Players completed a questionnaire assessing enjoyment of sport, physical self-perception, well-being and motivation; and, were filmed and game performance analysed (skill execution, support play, decision-making and defence). Linear mixed models will be used to analyse outcomes and Cohen's  $d$  effect sizes calculated. Process evaluation measures were also conducted.

## *Results and Conclusion*

Preliminary data analysis demonstrate improvements in perceived coaching confidence and confidence, and player game-performance. All results will be presented in full.

This study will build the evidence for the feasibility and effectiveness of MASTER for guiding coaching practices in community level sport to address player dropout, and will serve to inform further large-scale trials in other other sporting codes.



# **Programs for Students with Special Needs**

## **Situational interest of high school students having special educational needs after a cooperative learning unit.**

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Thursday, 20th June - 16:40: (Nexus 275) - Oral Paper

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*Mrs. Cassandre Ouellet (Université du Québec à Montréal), Prof. Claudia Verret (Université du Québec à Montréal), Prof. Cédric Roure (Université catholique de Louvain), Prof. Line Masse (Université du Québec à Trois-Rivières), Prof. Johanne Grenier (Université du Québec à Montréal), Prof. Geneviève Bergeron (Université du Québec à Trois-Rivières)*

**Background.** In the field of physical education (PE), the positive experience and success of students with special educational needs (SEN) can be modulated by the learning tasks (Block, 2016). Consequently, inclusive teaching models such as cooperative learning can be used in PE since they lead to positive academic and social impacts for students with SEN (Klavina and Block, 2008). However, the effects of these teaching models on motivation are not known for those students.

The purpose of this cross-sectional study was to measure the motivation of high school students having SEN and to compare it with their peers, using situational interest theory (Chen, Darst & Pangrazi, 2001). It was hypothesized that situational interest will be different between students with SEN and their peers as well as between boys and girls.

**Methods:** Forty high school students ( $16.6 \pm 0.5$  years) (14 girls) were included. Nine students (1 girl) had a special need (motor, cognitive, emotional or social). After a cooperative learning unit of 4 courses, the students completed a 9-item questionnaire measuring the triggering and maintaining of situational interest (Hidi & Renninger, 2006).

**Results:** Mean scores for triggering and maintaining situational interest were close to the average, indicating a neutral interest for the cooperative learning situation (respectively  $3.5 \pm 0.5$ ;  $3.2 \pm 1.0$ ). Independent sample *t*-tests showed no difference in triggering and maintaining situational interest between students having SEN and their peers. However, boys had a significantly lower maintaining situational interest score than girls.

**Conclusion:** Cooperative learning activities generate a neutral situational interest among high school students. Students with SEN have similar sources of interest compared to their peers. Future researches on motivation sources and teaching models are needed in PE to understand their impact on students with SEN.

## Moving in Concert - on the Benefits of Physical Activities for Children with ADHD?

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Thursday, 20th June - 17:01: (Nexus 275) - Oral Paper

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*Ms. Lise Réol (VIA University College)*

This study focuses on the possible benefits of physical activities (PA) for schoolchildren with ADHD (Attention Deficit Hyperactivity Disorder). Additionally, the challenges for teachers regarding PA with these children should be discussed.

This systematical narrative literature review of reviews regarding ADHD, PA and schoolchildren was made on the basis of 20 scientific articles found in the Databases Psychinfo, Medline & Eric.

Preliminary results indicate that, though results are mixed, children with ADHD seem to benefit from PA in school. As in healthy populations, it seems as if especially executive functions seem to be positively affected by PA in these children (Grassman, 2017). Self-esteem and depression symptoms also seem to be effected by an increase in PA (Biddle and Asare, 2011; Gawrilow, 2017). However, studies on this topic are rare and small and tend to focus exclusively on the child with difficulties. They do not acknowledge the important understanding from studies on inclusion; that behavior, learning and social-emotional-competencies are phenomena of groups and social dynamics, and not exclusively inherited in the individual child (Hedegaard-Sørensen & Grumløse, 2016). In this perspective an awareness of children with ADHD as “moving in concert”[1] with their classmates and teachers seems fruitful.

Biddle, S.J. & Asare, M. (2011). Physical activity and mental health in children and adolescents. *British Journal of Sports Medicine*, 45, 11, 886 - 895.

Gawrilow, C. et al. (2016). Physical Activity, Affect, and Cognition in Children With Symptoms of ADHD. *Journal of Attention Disorders*, 20(2) 151 –162.

Grassman, V. et al. (2017). Possible Cognitive Benefits of Acute Physical Exercise in Children With ADHD: A Systematic Review. *Journal of Attention Disorders*, 21(5) 367 –37.

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# Social-emotional learning in Physical Education: International perspectives on similar challenges

Thursday, 20th June - 17:22: (Nexus 275) - Oral Paper

*Ms. Teresa Odipo (German Sport University Cologne), Mrs. Chantell Gouws (University of Zululand), Prof. Thomas Abel (German Sport University Cologne)*

## Introduction

In the context of international efforts to change the school systems towards more inclusive ones, the area of emotional and social development is particular challenging for loads of teachers. Parents, care givers and educators face many issues and challenges on a day to day basis (Adams, Gouvousis, VanLue & Waldron 2004). They are reported to have difficulties with two main areas, the first being persistent difficulties with social communication and social interaction (Adams et al. 2004). Attitudes of (prospective) PE teachers towards children with special educational needs (SEN) play an important role in the implementation of inclusive PE (Meier, Ruin & Leineweber 2017). Based on the research question of how future teachers can be better prepared for the topic, the authors combine approaches from different countries. Physical activity and sport can be a good way of approaching social emotional learning in a variety of ways (Hellison 2011, Ciotto & Gagnon 2018). Children with SEN in social and emotional learning will be addressed as well as the joint learning of all children in inclusive PE.

## Methods

Based on a quantitative data collection which took place at the German Sport University Cologne in the winter semester 2016/17 and in which the request for further support-teaching-learning tools of the prospective sports teachers was expressed, teaching-learning tools are explorative tested. In the winter semester 2018/19, students of a teacher training basketball course (n=12) studied text material, case studies and the practical implementation of game sequences for children with and without SEN in social-emotional learning more intensively.

## Results

First results indicated that contact with children who have this need for support is very rewarding and should be continued. Case studies and text extracts offer good reasons for reflection, which must be instructed accordingly and also, prove to be very helpful.

## Conclusions

It is recommended that there be more education for the Educators regarding learners diagnosed with SENs of the various treatments, therapies, interventions and activities. Awareness rising to reduce stigma, improving the understanding of children with SENs and encouraging taking up various interventions to address symptoms associated with SEN children.

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# **Alternative Approaches for Preservice PE and PA**

## Does physical exercise lead to enhanced cognitive performances?

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Thursday, 20th June - 16:40: (Nexus 154) - Oral Paper

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*Ms. Eva Engel (University Oldenburg), Dr. Katharina Poeppel (University of Oldenburg), Dr. Ingo Roden (University of Oldenburg),  
Ms. Nora Müller (University of Oldenburg)*

Current research findings suggest that benefits in cognitive parameters can be enhanced by a combination of physical and cognitive exercise (e.g., Moreau, Morrison, & Conway, 2015). Therefore, the present study investigates whether a combat sport training (taekwondo), which includes cognitive parameters like the memorizing of complex movements as well as physical parameters, leads to higher cognitive advantages in visual-spatial working memory and executive functions compared to working memory training and aerobic training. We investigate this assumption within a quasi-experimental intervention study with three time points of measure. In particular, we measure  $N = 54$  primary school children (third grade, aged between 7 and 10 years;  $M = 8.28$ ,  $SD = 0.63$ ; 50 % female) concerning their cognitive (working memory), physiological and emotional performances (resting heart rate, blood pressure, saliva cortisol and alpha-amylase concentrations as well as self-reports of positive and negative affects) before (Pre) and after the interventions (Post) as well as four weeks later (Follow-up). Within the eight weeks of intervention, one group of children received a weekly taekwondo training ( $n = 12$ , combat sport group) while the two comparison groups either received a working memory training ( $n = 15$ , working memory group) or an aerobic training ( $n = 14$ , aerobic training group) of 45 minutes. A fourth group of children without any training served as a waiting control group ( $n = 13$ ). We suggest higher physiological and working memory outcomes after the intervention for children in the combat sport group compared to the other three groups. Measurements have taken place in the period between October and December 2018, the follow-up is scheduled for January 2019. Results will be presented at the conference.

## Pre-service teachers learning to teach through a service learning approach in a low SES school.

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Thursday, 20th June - 17:01: (Nexus 154) - Oral Paper

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*Dr. Risto Marttinen (George Mason University), Dr. David Daum (San Jose State University), Dr. Dominique Banville (George Mason University), Ms. Silvia Battistella (George Mason University), Dr. Ray N Fredrick III (Queens College City University of New York)*

**Background and purpose:** The purpose of this research was to understand the experiences of pre-service teachers (PSTs) teaching in an after-school physical education setting in a service-learning program. The research questions were: (1) How does a program that utilizes PSTs in a service-learning program develop students' pedagogy? (2) What are the experiences of PSTs teaching in low SES schools through a service-learning approach?

**Methods:** During the 2016-2017 school year, nine PSTs took part in a service-learning program that provided a free after-school physical education and literacy program (REACH) to 5<sup>th</sup> and 6<sup>th</sup> grade students in a low SES school. The REACH program spanned 30 weeks with programming twice a week for 2-hours each session. Data were triangulated through informal (December) and formal interviews (May) with PSTs, PSTs' weekly journals, researcher journals, and field notes. In total, 500 pages of data were analyzed using the constant comparative technique. Two researchers independently coded these data and a peer reviewer then separately checked the data.

**Results:** Three themes emerged from the data analysis. Theme 1: PSTs developed their pedagogies in real-world situations. Theme 2: PSTs experienced success in connecting with students and learning how to discipline and manage a class. Theme 3: Some PSTs struggled relating to the low SES students they taught.

**Conclusions and implications:** PSTs in this study were able to practice their pedagogy in a real-world environment and gain valuable experience in learning classroom management and behavior management while providing a service to an under-resourced community. PSTs gained valuable insight not possible in a peer-teaching scenario. The REACH program is a model for a service-learning approach where PSTs can learn how to teach through extended involvement in the community all while providing a much needed physically active after-school program for youth who otherwise would not have access to one.



# **Social Justice in PE**

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## **“How are we going to change this?”: Transformational resistance and social justice work within predominantly white schools**

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Thursday, 20th June - 16:40: (Nexus 155) - Oral Paper

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*Dr. Mara Simon (Springfield College), Dr. Laura Azzarito (Teachers College Columbia University)*

*Background:* Physical education in the U.S. has been problematized as being informed by whiteness and reflecting racist and sexist educational discourses. Ethnic minority PE teachers often experience marginalization and a sense of “otherness” (Azzarito & Simon, 2016). However, from a critical whiteness studies perspective, it is important to resist characterizing ethnic minority teachers as “helpless victims” or lacking in agency and power (Farinde, LeBlanc, & Otten, 2015; Rodriguez, 2011; Solórzano & Bernal, 2001). Thus, the research questions this study aimed to answer were: (1) How do ethnic minority female PE teachers who work in predominantly white schools enact transformational resistance as a means of empowerment? (2) How do ethnic minority participants within predominantly white schools create opportunities for agency and social change? *Purpose:* To examine the intersecting embodied identities of ethnic minority female PE teachers who work in predominantly white schools to identify how participants made sense of their marginalized position in empowering and enabling ways. *Methods:* The method for data collection was three narrative-based, semi-structured interviews coupled with photo elicitation. *Results:* The results indicated that participants enacted transformational resistance, which delineated a path towards a place of assertiveness and resilience through the notions of “rising up” and “giving back” to their school communities. *Discussion:* While participants often experienced marginalization and racism within their predominantly white schools, these negative instances were understood as a vehicle towards individual empowerment. Thus, participants actively aimed to disrupt stereotypes and work towards change within their microlevel educational contexts (Carter, 2008). This research illustrates how schools operate as sites of intersectional racialized oppression and the importance of engaging in social justice work within PE that aims to dismantle the “multiple forms of violence” which positions those beyond the dominant framework of whiteness and masculinity as marginalized, minoritized, or as outsiders (Tejeda, Espinoza, & Gutierrez, 2003).

## Secondarization process and access to knowledge in PE in a disadvantaged context

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Thursday, 20th June - 17:01: (Nexus 155) - Oral Paper

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*Ms. Marie-Paule Poggi (Université of West Indies)*

Fighting social inequalities for success in school has become a major concern, now endorsed in educational policies. French official programs promote students' intellectual education and the development of reflexive skills focused on the acquisition of one's autonomy of thought (BOS 11 [Special Official Bulletin], November 26<sup>th</sup> 2015). This study focuses on a particular pedagogical manoeuvre used in PE and called "Debate of ideas" (Gréhaigne & Godbout, 1998). This pedagogical set-up, during which students debate their strategies of action with peers, constitutes an action-formalization tool which makes it possible to help them "analyze the conditions of their actions" through a reflection and understanding process focused on their own action and on their peers' action. This learning set-up engages students into a "secondarization" process (Bautier & Goigoux, 2004), bringing them to proceed from the mastery of a learning task in PE toward a reflexive and decontextualized construction of learning; the process implies, on the part of the students, a cognitive transformation and reconfiguration from a practical to a symbolic mastery of their reality and knowledge (Philippot & Bouissou, 2006). We observed a PE teacher throughout a six basketball-lessons series in a disadvantaged environment (professional high school). The analysis of "secondarization" debate episodes shows that despite a large diversity of contextualization stimulation, students resist and get little involved. They persist on a practical, descriptive and binary register. Faced with this problem, given the students' impatience and her legitimate desire to make the best of the available schooling time, the teacher is torn between favoring or deterring the students' secondarization activity. Therefore, the set-up put together for the sake of the study sends conflicting messages to students who are successively invited to reflect on their tactical activity during play and then to validate the teacher's institutionalization discourse in the absence of any debate.

# Gender (Re)Constructions in Physical Education from a Pupils Perspective - A Longitudinal Study

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Thursday, 20th June - 17:22: (Nexus 155) - Oral Paper

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Prof. Judith Frohn (Bergische Universität Wuppertal)

## Background

Gender differences often play a central role in physical education (PE), whether through the attribution of sports preferences or different performance expectations - at least this is what both teachers and pupils equally report. From the perspective of social constructivism, however, social differences, including those between girls and boys, are brought about by structures and interactions. Pupils themselves are involved in these processes. This presentation focuses on the question of in which situations and in which ways pupils (re)construct gender differences.

## Methods

As soon as possible after the observed PE lessons pupils are interviewed concerning their experiences of play situations. Photos from PE lessons as well as sociograms are used as a stimulated recall. A total of 123 interviews are conducted with pupils in grades 2-7 on a longitudinal basis. The method used is content analysis.

## Results

The results show that with increasing age, gender is first implicitly and later explicitly named by pupils as the central difference that shapes both perception and design of play situations in PE. Gender plays a major role here, especially in terms of performance, but also in terms of friendship and belonging.

## Conclusions

Gender can be understood as a central line of difference in the PE lessons or in its reconstruction by the pupils. Gender becomes particularly relevant when it interacts with performance as the "guiding difference of teaching" (Idel, Rabenstein & Ricken, 2017, p. 153). Especially in ball game situations existing gender differences are reproduced and perpetuated. From this perspective, the frequently stated dominance of ball games in PE in Germany must be viewed critically from this perspective.

## Bibliography

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# **Healthy Behaviors and Quality Community Sport**

# Foster knowledge and integration of healthy behaviors among Belgian pupils: impact of the Oblomov methodology

Thursday, 20th June - 16:40: (Nexus 156) - Oral Paper

*Mr. Nicolas Franck (University of Liege), Ms. Maurine Remacle (University of Liege), Dr. Alexandre Mouton (University of Liege), Prof. Marc Cloes (University of Liege)*

## Introduction

As underlined by the recommendations of the Kazan Action Plan (Unesco, 2017), motivating youth to adopt an active and healthy lifestyle became one of the priorities of the physical education (PE) course. Based on the motivational power of playful situations and the imaginary of the pre-adolescents, an Erasmus+ project called ObLoMoV (Obesity and Low Motility Victims) has been developed by seven partners coming from Italia, Belgium, Finland, Greece, and Slovenia (see <https://www.oblomovproject.eu/for> all details). In its Belgian adaptation, activities focused on health messages have been integrated to the content taught (Franck et al., 2018). Accordingly, the aim of this paper was to determine how the pupils' knowledge and practices were impacted by these specific activities.

## Methods

Nine classes of 5th and 6th grades (pupils of 11-13 year-old) were recruited in five different schools around Liege (Belgium). Pupils took part in a 10 lessons PE unit. Seven health topics were proposed during the unit (nutrition, sleep, physical activity recommendations ...). Data were collected before (questionnaire at T0), during (informal pupils behavior, good practices) and after (questionnaire at T1) the implementation of the unit.

## Results and conclusions

The total amount of subjects comprised 176 pupils (95 boys). They reported more than 400 good practices implemented outside of school while 160 pre-post questionnaires have been collected and analyzed. At baseline, results seem to be mainly influenced by the grade ( $p=.057$ ). After the unit, pupils' knowledge seems to improve in several classes underlining overall positive short-term effects of the approach proposed. Further analyses will provide additional information about the impact of the independent variables. Provisional implication is that encouraging pupils to report regularly how they use what they learn during the PE course could contribute to increase the accountability of the subject.

Word count: 290

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## Looking beyond fitness-based physical education outcomes in a tale of two cities; a complex endeavour

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Thursday, 20th June - 17:01: (Nexus 156) - Oral Paper

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*Dr. Alison Murray (University of Roehampton), Mr. George Woods (Texas A&M-CC), Dr. Bhavin Patel (Citimedical NYC, Woodhaven), Dr. Pamela Murray (University of Worcester), Prof. James Mckenna (University of Leeds Beckett), Prof. David Kirk (University of Strathclyde), Mr. Emerick Kaitell (University of Roehampton)*

Encouraging children during physical education to become more active for the sake of enjoyment is one thing. To promote activity through a health-related educational perspective during lessons is another. To facilitate the acquisition and transference of skills and competencies conducive to the development of pupil agency beyond the class is altogether complex. This study uses the disquieting findings in its first phase (Texas; N=1000) to better effect change following its predicted and attained improvements in fitness related outcomes with participants of daily physical education with children provided even less curriculum opportunity to attain any curricular outcomes during phase two (London; N=897; n=143, n=754). In phase one, volunteering schools (8) were randomly assigned to one of four groups for the quasi-experimental approach and measured at the onset and end of one academic year. The resistance group demonstrated significantly improved scores across fitness/biomotor competencies measured ( $z=-5.763$ ,  $p<0.001$ ). Those in the inquiry based (metacognitive) cohort significantly improved fitness ( $z=-4.439$ ,  $p<0.001$ ). Pupils within the combined group of resistance as delivered through an inquiry-based method demonstrated significant improvements across the collective fitness regimen ( $z=-6.902$ ,  $p<0.001$ ). Pupils in the control group did not improve their fitness. This reduced significantly ( $z=-3.675$ ,  $p<0.001$ ). Motivation and metacognition indices reduced across all cohorts to greater and lesser extents. The linear approach attained the desired skill and health related fitness results across all three treatment cohorts (n=750) bar the control (n=250), yet failed to evidence any notion of children either wanting to continue and/or knowing how to do so despite their improved formative motor competency improvements and measured summative results. Phase two then adopted a complex analytical approach to better understand and explore the potential for children to emerge as leaders of their own wellness destiny whereby a more creative pedagogical approach ensued. This demanded change of both a conceptual and pragmatic nature in the methodology adopted. In the second phase, children and youth were provided explicit instruction upon how to promote the games and activities during lunch times at the onset of the study using cues provided to all classes. Physical activity participation at lunchtime increased significantly (Kolmogorov-Smirnov test: Pre data:  $z=0.311$ ,  $n=6253$ ,  $p<0.001$ ; Post data:  $x=0.400$ ,  $n=6226$ ,  $p<0.0001$ ). Children significantly enhanced activity related knowledge and respective application (Wilcoxon Signed Ranks Test:  $z=-22.86$ ,  $r=-0.29$ ,  $p<0.001$ ). Most importantly and in diametric opposition to phase one, motivation significantly increased from the beginning to the end of the study ( $x=0.254$ ,  $n=4879$ ,  $p<0.001$ ). Fitness indices were not measured following a pilot study (n=143) which found no significant differences in moderate to vigorous activity levels as measured through an accelerometer over a five day school period between pre and post interventions during physical education ( $t=0.111$ ,  $p=0.913$ ). The adoption of a more complex approach offers insights for both pragmatic and practical contextual reconsideration of health and skill related fitness policy and enactment within and beyond the (physical education) curriculum.

# Improving tennis coaching among Physical Education pre-service teachers.

Thursday, 20th June - 17:22: (Nexus 156) - Poster Presentation

*Mr. Ross Williams (Murdoch University, Perth, Western Australia)*

**Abstract:** *Note: This is not an empirical based study. It is intended as preliminary analysis of a project that has future empirical research potential.*

## · Background and purpose of the proposed presentation

One of the major challenges facing pre-service Physical Education (PE) institutions is to ensure that graduates have the opportunities to develop the disciplinary knowledge, understanding and skills underpinning the PE curriculum. This presentation will focus on how these necessary pre-requisites were developed in an authentic learning context involving formal and informal learning. It will show how pre-service teachers (PSTs) applied the theoretical perspectives from their formal learning in practical contexts. The purpose of this presentation is to share PSTs perspectives on how they applied their theoretical understandings in a range of practical coaching and teaching contexts.

## · A summary of the main points of the presentation

Pre-service teachers were required to complete formal accreditation in Tennis coaching and then apply their learning in sporting and community contexts. The PSTs were required to:

- Successfully complete a Level One community tennis coaching course
- Observe and reflect on the roles of elite tennis coaches using game-sense approaches in working with elite junior players
- Prepare a report detailing their observations focused on how coaches applied theory in their practice sessions
- Plan and implement a games-based coaching session with group of beginning tennis players. PSTs were required to use and later reflect on their newly acquired theoretical and practical knowledge and understandings.
- Provide a reflective summary of their learning in relation to coaching tennis.

## · How the proposed presentation addresses one or more of the conference aims and themes

This presentation addresses the following conference themes:

**Sub-theme 1: Physical Education and Physical Literacy** This presentation addresses the development, implementation and evaluation of quality physical education programs (i.e. tennis) in school/community programs.

**Sub-theme 2: Professional Preparation for Health and Physical Education, Sport, and Physical Activity.** This presentation focuses on teacher education and professional development for physical education teachers, and professional preparation for physical activity leaders and sport coaches. It addresses program delivered in elite and beginning coaching contexts.

**Sub-theme 3: Physical Activity and Public Health** This presentation highlights an initiative that aims to deliver physical activity to improve health and well-being of youth engaged in school holiday programs. It pays attention to the need for effective professional preparation of coaches/youth leaders. It also included a focus on a program designed to provide opportunities through a sporting context that has the propensity to be health enhancing.

**Sub-theme 5: Youth and Community Development** This presentation shows how sport can support stronger communities. It uses the tennis as a medium to encourage youth participation in physical activity.



**Sub-theme 6: Maximal Individual and Team Performance** This presentations affirms the use of game sense strategies for improving and enhancing tennis in elite and beginning coaching.

· **Conclusions from and implications of your presentation for practice, policy, or subsequent research.**

Preliminary findings from reflective written accounts of the PSTs who participated in this program, indicates they benefited from the opportunities to practise, create, apply and evaluate their knowledge, understanding and skills of coaching tennis. It is likely that the authentic nature of the learning process, enabled the PSTs to gain insights into realities of teaching/coaching contexts and to better understand the expectations of them as a future leader, teacher and coach. Further iterations of this program aligned to an appropriate research project are intended, to verify these initial accounts and observations emerging from this project.

# **Preprofesional experiences and PETE**

# The (mis)alignment between student experience in physical education, physical activity and sport and physical education curriculum development in Ireland

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Thursday, 20th June - 16:40: (Nexus 157) - Oral Paper

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*Mr. Dylan Scanlon (University of Limerick), Prof. Ann MacPhail (University of Limerick), Dr. Maura Coulter (Dublin City University)*

## **Background and purpose:**

In Ireland, current curriculum development includes the redevelopment of the primary curriculum and the enactment of the Junior Cycle Framework in the first three years of post-primary schooling. Aligning these developments with the meaningful experiences in physical education (MPE) and youth sport framework (Beni, Fletcher & Ni Chroinin, 2016), this study aims to understand how primary and post-primary Irish students' perceptions of physical education and sport can inform physical education curriculum development and enactment.

## **Methods:**

Focus group interviews were conducted with 64 students across three primary schools and three post-primary schools. The MPE and youth sport framework was used as the underpinning framework for the study. Data analysis occurred in three phases - initial, focused and theoretical coding (Charmaz, 2014).

## **Results:**

The students' experiences of physical education and sport aligned with the MPE and youth sport framework (i.e., social interaction, fun, challenge, competition, motor competence and personally relevant learning) in either a positive (e.g., the students were positively disposed to wellbeing and health discourse) or negative manner (e.g., too much of a focus on winning discouraged participation). These features should not be viewed as separate entities and teachers need to be aware of the complexity of their overlapping.

## **Conclusions and implications:**

Regardless of age and transition, the features of MPE and youth sport must be considered in physical education curriculum development and the subsequent enactment for learning in physical education. The student voice element of this study supports some of the recent physical education curriculum development considerations. Student voice, therefore, has the potential to inform policy and practice as well as enforce and advocate for policy and practice that positions students at the centre of the learning experience.

# Relation between portrait of value congruence and psychological well-being: the case of French professional preparation for physical education's trainee teachers

Thursday, 20th June - 17:01: (Nexus 157) - Oral Paper

*Mr. Clement Llena (Univ.Lille, Univ. Artois, Univ.Littoral Côte d'Opale, EA 7369-URPSSS- Unité de Recherche Pluridisciplinaire Sport Santé Société, F-59000 Lille, France), Dr. Isabelle Joing (Univ.Lille, Univ. Artois, Univ.Littoral Côte d'Opale, EA 7369-URPSSS- Unité de Recherche Pluridisciplinaire Sport Santé Société, F-59000 Lille, France), Dr. François Potdevin (Univ.Lille, Univ. Artois, Univ.Littoral Côte d'Opale, EA 7369-URPSSS- Unité de Recherche Pluridisciplinaire Sport Santé Société, F-59000 Lille, France), Dr. Olivier Dieu (Univ.Lille, Univ. Artois, Univ.Littoral Côte d'Opale, EA 7369-URPSSS- Unité de Recherche Pluridisciplinaire Sport Santé Société, F-59000 Lille, France), Dr. Alessandro Porrovecchio (Univ.Lille, Univ. Artois, Univ.Littoral Côte d'Opale, EA 7369-URPSSS- Unité de Recherche Pluridisciplinaire Sport Santé Société, F-59000 Lille, France), Dr. Christophe Schnitzler (Univ. Strasbourg, EA 1342 – E3S - Equipe d'accueil en Sciences Sociales, F-67000 Strasbourg), Dr. Gaelle Marais (Univ.Lille, Univ. Artois, Univ.Littoral Côte d'Opale, EA 7369-URPSSS- Unité de Recherche Pluridisciplinaire Sport Santé Société, F-59000 Lille, France), Dr. Philippe Masson (Univ.Lille, Univ. Artois, Univ.Littoral Côte d'Opale, EA 7369-URPSSS- Unité de Recherche Pluridisciplinaire Sport Santé Société, F-59000 Lille, France), Prof. Jacques Mikulovic (Univ. Bordeaux, EA 7437-LACES-Laboratoire Culture, Éducation, Société, F-33000 Bordeaux, France)*

## Background

Well-being is recognized as a key parameter in education. Literature showed that subjective well-being of students and teachers were strongly correlated. The purpose of this study was to examine the congruence between general and contextual “portraits of values” in a group of physical education (PE) trainee teachers. This congruence is considered in the literature as an important indicator of their psychological well-being. Exploring these key variables could improve professional preparation for sports, physical activities and PE educators.

This research hypothesized that PE's trainee teachers successful at implementing their personal values in their teaching exhibit higher levels of well-being. Otherwise, we identified the profiles and the value priority that strongly impact psychological well-being for trainee PE teachers.

## Methods

Participants (N=194; 81 females, 126 males, age = 24,87) were recruited in 28 French graduate schools for teaching and education. All participants were invited to complete validated surveys concerning their personal portrait of value, portrait of value in PE context, work motivation, psychological well-being at work and sociological variables. The responses were organised in quantitative and ordinal data. Correlation analysis and multiple logistic regressions were performed with R software. Level of confidence was fixed at .05.

## Results

High values of “Self-transcendence” and “Openness-to-change” correlate with higher levels of psychological well-being at work. More generally, our result confirm that the congruence between trainees teachers' personal values and those taught in classrooms induced a feeling of superior psychological well-being.

## Conclusions and implications

This study suggests that examining the congruence between general and contextual portraits of values is a fertile

ground for questioning emancipation, intrinsic motivation and psychological well-being in professional preparation for physical education trainees teachers, which could be generalized to other educators in sports and physical activity.

## Exploring Connections between Pre-Service Physical Education Teachers' Definitions of Professional Development and Career Goals

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Thursday, 20th June - 17:22: (Nexus 157) - Oral Paper

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*Mr. Collin Brooks (University of Northern Colorado), Ms. Xiaoping Fan (University of Northern Colorado), Dr. Jaimie McMullen (University of Northern Colorado)*

**Background.** The Initial Physical Education Teacher Education (PETE) Standards (SHAPE, 2017) recommend that pre-service physical education teachers (PSPETs) participate in activities leading to professional growth and development. While there is a growing body of literature outlining effective PD (e.g., Patton & Parker, 2015), there is a lack of research focusing on PSPETs experiences with PD. Therefore, the purpose of this study was to explore PSPETs definitions of PD, their experiences with PD and to determine if their definitions of PD change according to their stated career goal at different times in their PETE program. **Methods.** Eight PSPETs from one PETE program in the mid-west United States participated in the study. PSPETs were given an open-ended questionnaire asking them to define PD and articulate their career goals. Eight months later, the same PSPETs were asked to complete the same questionnaire that also included a prompt to list their PD experiences since their first involvement in the study. Data were analyzed inductively, and themes were identified based on patterns observed repeatedly within the data (Smith & Sparkes, 2016). Similarities and differences between the two time points are explored in the results. **Results.** Findings indicate that PSPETs' definitions of PD initially involved learning and interacting with people evolved to include engaging in a variety of PD experiences. Their career goals shifted from simply getting a job to impacting students through their teaching position and they reported attending conferences and engaging in workshops for PD. **Conclusion.** Results from this study imply that different types of PD experiences could influence PSPETs definition of PD and their career goals. Further research should focus on factors influencing PSPETs experiences with PD to help PETE programs meet the needs of their PSPETs.

# **Coaching Studies**

## Understanding the impact of organisational cultural climates in the context of recruiting women coaches

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Thursday, 20th June - 16:40: (Nexus 158) - Oral Paper

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*Dr. Leanne Norman (Leeds Beckett University)*

Women's football in England has undergone major re-branding and re-structuring over the recent years. The purpose of this presentation will be to increase understanding as to the role that organisational culture plays in enabling or constraining the appointment of women coaches into senior roles in these top tiers of women's football. Seven football clubs from the two highest leagues of women's English football were identified to participate in the research. Interviews were held with 12 club representatives across the seven clubs. To analyse these particular participant stories, we drew upon Schein's (2004) three levels of culture to analyse 'underlying values and assumptions'. From the study, it was concluded that the perceived significant gap between the "public face" of women's football as vibrant and growing and the reality that the women's game is not commercially viable, constrains growth for sport coaching.



## Physical Education Teacher Education and Sports Coaching Program in Gymnastics for All: An Active Learning Experience

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Thursday, 20th June - 17:01: (Nexus 158) - Oral Paper

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*Dr. Michele Viviane Carbinatto (University of São Paulo), Ms. Lorena Nabanete Dos Reis Furtado (University of São Paulo), Ms. Nayana Ribeiro Henrique (University of São Paulo), Ms. Tamiris Lima Patrício (University of São Paulo)*

**Background and purpose:** Physical education teacher education (PETE) and sports coaching (SC) educational programs have been identified as a key vehicle for raising the standard of sporting practice (Nelson, Cushion and Potrac, 2013). However, those programs have had a limited impact on learning, as they followed a 'top-down' approach to deliver content. Theorists indicate change of paradigms in how to deliver these programs beyond the technical aspect of coaching in sports (Lyle, 2005; Jones, 2006; Côté, 2006). This paper follows a constructivist approach based on the critical pedagogy of Paulo Freire (1996;1998) and investigates the Gymnastics for All (GfA) PETE and SC program on its active learning environment and processes.

**Methods:** This study was participatory action research project. The participants included ten pre-service PE students, seven sports coach students, one lecturer and two assistants. Data collection included weekly session observations, one GfA festival observation, 10 weekly collaborative lecturers and assistants' meetings, 27 field notes, two focus group (before and after) the students' performance. Data analysis was inductive and ongoing using constant comparison methods.

**Results:** Three aspects represent the findings: 1) students argued that the collaborative work was not easy to put into practice, as it requested group commitment during all sessions; 2) they understood that different personal experience and background brought more creative decisions in the GfA composition and teaching-learning process; 3) mentoring was important to deconstruct gymnastics patterns and enlarging the use of apparatus for diverse skills levels.

**Conclusion and applications:** The students developed the competence to deal with diverse ideas when teaching a sport by using reflection-in-action weekly discussions (Cassidy and Rossi, 2006). Also, the program encouraged them to join gymnastics as a coach or included GfA on their PE classes at school, re-conceptualizing the idea that just former athletes could teach gymnastics (Dowdell, 2010).

## **Walking the slippery slope: Why are New Zealand teachers leaving coaching?**

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Thursday, 20th June - 17:22: (Nexus 158) - Oral Paper

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*Dr. Clive Pope (The University of Waikato)*

Over the last twenty years sport has been an integral and growing aspect of New Zealand high school life. All inter-school sport is controlled by the New Zealand Secondary Schools Sports Council comprised of elected school principals and three administrative staff. Over two decades the number of national and island (North Island and South Island) events has increased from 98 to over 220. Likewise, the number of sport codes offered to schools has swelled from 42 in 1998 to 81 in 2017. This growth has been off set by a steady drop off in the number of teachers who are coaching in high school sport as reflected in the annual national census data completed by every New Zealand high school. Teachers have historically played a significant role in the delivery of sport within the New Zealand secondary [high school] education system but in recent times this trend has changed – for the worse. In the past there was an expectation that staff would support sport within the school by supervising/coaching at least one sports team. School sport has historically depended on the willingness of staff to support various sporting codes. But teacher support is diminishing. This presentation will reveal findings from a national research project that examined teacher attrition from coaching and will highlight the outcomes of interview and survey data. In particular it will explore contributing factors including but not limited to; pre-service teacher preparation, the demographics of the teaching force, teacher workload, resourcing and recognition and the impact of student responses to a shifting sporting landscape. As teacher attrition from coaching reflects a slippery downward slope, schools struggle to meet sporting demands and must explore ways to recruit and retain teachers into coaching.

# **Special Needs Studies**

# Physical education teachers' beliefs and willingness toward the inclusion of students with special educational needs

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Thursday, 20th June - 16:40: (Nexus 241) - Oral Paper

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*Prof. Line Masse (Université du Québec à Trois-Rivières), Prof. Claudia Verret (Université du Québec), Prof. Johanne Grenier (Université du Québec à Montréal), Prof. Cédric Roure (Université catholique de Louvain), Prof. Geneviève Bergeron (Université du Québec à Trois-Rivières)*

Background. Beliefs about inclusive education, often reported as puzzling by teachers, is influenced by the type of disability presented by students (Qi & Ha, 2012). Some research shows physical education (PE) teachers' positive perceptions about teaching to students with physical or intellectual disabilities (Qi and Ha, 2012), but less positive for students having behavioural disorders (Obruskikova, 2008).

Method: In line with planned behaviour theory (Ajzen, 2012), this research aims to explore the attitudes and willingness of PE teachers to work with students having SEN. A total of 245 PE teachers (46% women) completed an online questionnaire including the Multidimensional Attitudes Toward Inclusive Education Scale (Mahat, 2008) as well as the *Teachers' Willingness to Work with Severe Disabilities* Scale (Rakap and Kaczmarek, 2010).

Results: Attitudes of PE toward inclusion is somewhat positive but varies significantly depending on aspects of attitudes. PE teachers have a strong willingness to act to successfully include students having SEN. The correlational analyses showed strong associations between total attitude and willingness to teach students with SEN.

Conclusion: The positive attitudes and strong willingness of PE teachers advocates for a greater role to play in the inclusive education of students having SEN.

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# **Symposium 5**

## Equity and Diversity in HPE Part I: Addressing diverse subjectivities

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Friday, 21st June - 09:30: (Nexus 239) - Symposium

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*Dr. Sara Flory (University of South Florida), Mr. Dillon Landi (Towson University), Dr. Tara Blackshear (Towson University), Prof. Symeon Dagkas (St Mary's University), Dr. Annette Stride (Leeds Beckett University), Ms. Carrie Safron (Teachers College Columbia University), Dr. Risto Marttinen (George Mason University), Prof. Mikael Quennerstedt (University of Örebro)*

**Co-chairs:** Sara Flory & Dillon Landi

**Discussant:** Professor Mikael Quennerstedt, Örebro University (Sweden)

There is an emerging interest in the experiences of diverse identities and subjectivities in the fields of sport, health and physical education (HPE). Thus far, much of this research flows through a rehearsed narrative: showcasing successful practices (cheers!), unveiling the hidden biases and inequities (gasp!), and then quantifying teaching and learning through data (look at the results!). Yet, through this rehearsed narrative, an entire perspective has been lost on the experiences of actual flesh and blood children and teachers. Thus our session objectives are:

1. To map and explore emerging trends related to diverse subjectivities in sport and HPE;
2. Investigate the experiences of diverse subjectivities in sport and HPE; and
3. Examine how subjectivities shape, and are shaped by, experiences in sport and HPE.

### Overview:

The papers in this symposium provide international examples of empirical inquiries in sport and HPE. The research in this symposium highlights the complexity of diverse subjectivities through a diverse range of frameworks (critical race theory, intersectionality, etc.) and research methods (qualitative and quantitative). This symposium attempts to provide emergent insights on diverse subjectivities at the intersection of sport and HPE. The first paper uses a systematic literature analysis to examine the trends of LGBTQ scholarship in PE worldwide. The second paper uses critical race theory to explore the trends of SHAPE America's teachers of the year in relation to race and ethnicity. Paper three examines the perspectives of Black and Asian minority families in sport and physical activity. The last paper explores the ways in which current PE policies practices reinforce and/or challenge gendered subjectivities.

### Significance:

This symposium adds to the emerging research exploring the role of subjectivities in sport and HPE (Dagkas, Benn, & Jawad, 2011; Fitzpatrick, 2013). In so doing, the symposium explores structural influences and daily events that affect diverse experiences in the field.

**Paper 1:** LGBTQ Scholarship in PE: Emerging trends

**Author:** Dillon Landi, Sara Flory, Carrie Safron, & Risto Marttinen

**Abstract:** There has been a notable increase in scholarship on LGBTQ issues in PE over the past decade. One way to analyse growth in a field is to conduct a systematic analysis of published scholarship. Systematic analyses of scholarship are not literature reviews. Systematic analyses are different from literature reviews because they code and categorize research rather than synthesize. Therefore, the purpose of this paper was to identify, categorize, and analyse published scholarship on queer issues in PE. The authors identified research by conducting an exhaustive search of nine literature databases. Over 230 abstracts were reviewed, 97 papers were analyzed

in-depth, and 53 manuscripts were chosen for inclusion. The authors located additional scholarship that did not arise in the original search by reading bibliographies. In so doing, the authors used a ‘snowball’ method to review and include an additional 17 manuscripts (n=70). Each paper was coded based on multiple areas including focus, theory, participants, location, and method, amongst others. This paper is significant because it is the first attempt to systematically track trends of queer scholarship in PE. In so doing, the paper highlighted methodological issues, theoretical insights, and presented an important overview of the field.

**Paper 2:**#SHAPEsoWHITE

**Author:**Tara Blackshear

**Abstract:**SHAPE America professes diversity, inclusion, and social justice, yet Teachers of the Year (TOY) reflect racial inequity. Teachers of color are virtually non-existent in the history of SHAPE’s TOY program—even in the most racially diverse districts. Despite evidence of good Black and Brown physical educators, there was not one Black TOY during Barack Obama’s presidency - The United States’ first Black president. Black and Hispanic students make up 50% of the US public school population but may never have a physical education teacher who looks like them. Race matters for the educational trajectory of Black and Brown students as 1) White teachers have consistently shown to have much lower expectations for Black and Brown students, and 2) Black and Brown students learn and perform better under the direction of teachers of color. Mission statements of inclusion appear empty as conscious, deliberate action is not evident. SHAPE America and the TOY selection process fall short of publicly stated goals of inclusivity. The hegemonic underpinnings of Physical Education are evident in SHAPE’s TOYs. Using Critical Race theory, data are presented from SHAPE America’s teacher of the year awardees to address racial (in) justice in physical education.

**Paper 3:**Race, youth sport, and physical activity: Intersectional perspectives

**Author:**Symeon Dagkas

**Abstract:** Social justice education recognises discrepancies in opportunities among disadvantaged groups in society. This paper will provide a critical reflection on issues of social justice within sport, health, and physical activity (PA) among Black and Asian Minority Ethnic (BAME) youth. The paper will also address the importance of intersectionality research in sport and physical activity for social justice. By drawing on intersectional research, the author contextualises the complex interplay of social issues and their influence in shaping agency amongst BAME youth. Qualitative methods were adopted to better understand 10 families’ (n=43) perceptions of health and well-being. Interviews were used to explore factors related to participation in sport and PA. Further insight was gained to understand the ways in which families conceptualise sport and PA. Data were analysed using thematic analysis. The results suggest cultural transmissions within the family may influence pedagogical orientations and embodied practices. Cultural transmissions are also interconnected to economic, cultural and physical capital. Given this, human agency is affected by a multitude of factors including socioeconomic status, ethnicity, and religion. These factors, in turn, affect the embodied dispositions of BAME youth by facilitating and constraining their sport and PA experiences.

**Paper 4:**Re-visiting the gender agenda: 25 years post ‘Shaping up to womanhood’

**Author:**Annette Stride

**Abstract:**Whilst gender-related research in PE is extensive, what is less considered is the ways in which gendered power relations both influence and are reinforced by PE policies and practices. In this regard, Scraton’s (1992) study has been pivotal in highlighting how PE contributes to young women’s understandings of themselves, their bodies, and their place in the world. Through its structures, content, and delivery, PE reinforces messages around young women’s sexuality, physicality, and motherhood. 25 years on from Scraton’s work, this study explores to what extent

contemporary PE reproduces and challenges gendered power relations. Data were generated across four secondary schools in the north of England through observations (80 hours of boys' and girls' PE classes across two half terms) and semi-structured interviews with 10 PE teachers. Using a middle ground feminist lens and Hill Collins' (2000) matrix of domination as the theoretical framework, this presentation will explore the ways in which gendered power circulates across multiple sites. Moreover, this presentation will explore the interconnected ways in which gendered power relations operate within the daily routines of a PE department contributing to the reproduction of gendered difference and making resistance to the status quo difficult.



## **Roundtable 3**

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## Implementation of School-Based Physical Activity Interventions in Secondary Schools: The Needs and Priorities of School Stakeholders

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Friday, 21st June - 09:30: (Nexus 126) - Roundtable discussion

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*Ms. Marie-France Potvin-Gingras (Université de Sherbrooke), Ms. Jolaine Désautels (Université de Sherbrooke), Prof. Félix Berrigan (Université de Sherbrooke), Prof. Sylvie Beaudoin (Université de Sherbrooke), Prof. Sylvain Turcotte (Université de Sherbrooke)*

Schools have been identified as ideal settings for the implementation of interventions aiming to increase youth physical activity (PA) levels (McMullen et al., 2015). However, few studies describe the factors that influence such interventions (Naylor et al., 2015; Siedentop, 2009). It therefore appears essential to investigate the needs and priorities of school stakeholders, since these factors provide a better understanding of the issues underlying the implementation of interventions promoting PA in schools. We collected data through semi-structured individual interviews with 66 secondary school stakeholders. We then subjected the needs and priorities of school stakeholders to a mixed content analysis (L'Écuyer, 1990) and obtained a percent agreement of 98% between the two analysts. To get an overall view of the results, needs and priorities have been classified according to a five levels socio-ecological model (modified from McLeroy et al., 1988): (1) students; (2) parents and peers; (3) school environment; (4) community; and (5) policies. Among these levels, several needs related to the quantity, quality, and accessibility of sports facilities (n = 26), as well as the quantity and quality of sports equipment (n = 24) present in the school setting. Others related to school policies favorable to the students' regular practice of PA (n = 25). As for the priorities, they mainly referred to school policies conducive to the students' regular practice of PA (n = 14). Other priorities related to the level of school setting, i.e. to quantity and quality of sports facilities (n = 12) and to the leadership of the school management and team (n = 10). Several statements relating to other levels or themes of the socio-ecological model were reported and will be explained in our presentation. These results provide an insight on possible avenues for action and should guide the development and implementation of interventions targeting the promotion of PA in secondary schools.

## **(Re)considering and (re)defining the teacher educator role in supporting curriculum development**

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Friday, 21st June - 09:45: (Nexus 126) - Roundtable discussion

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*Ms. Claire Walsh (University of Limerick), Prof. Ann MacPhail (University of Limerick), Dr. Deborah Tannehill (University of Limerick)*

### **Background and purpose of the proposed presentation**

The European Commission (2014) capture teacher education as a continuum across initial teacher education, induction and continuing professional development . Against this backdrop, recent and current school physical education curriculum developments in Ireland has heightened the need to (re)conceptualise teacher education as a continuum and, in turn, the role of the teacher educator across the continuum. The aim of this presentation is to consider how the positioning of the presenting author as a physical education teacher, teacher educator and professional development provider informs the process by which a physical education teacher education programme considers, enacts and advocates for recent and current school physical education curriculum developments.

### **A summary of the main points of the presentation**

The presenting author will share how her involvement across a number of roles not only informs how she inhabits each role but also how each role can complement the experiences of the other roles, all with a common aim of enhance the learning experiences of teachers and pre-service teachers.

### **How the proposed presentation addresses one or more of the conference aims and themes**

This presentation addresses Theme 2. Reconsidering the teacher education continuum can better prepare physical education teachers, teacher educators and policy makers to support, deliver and develop physical education programmes in school and higher education institutes.

### **Conclusions from and implications of your presentation for practice, policy, or subsequent research**

This presentation prompts a discussion on rethinking the definition and positioning of a teacher educator (and in turn teacher education ).Self-study is proposed as a way in which to explore the multiple roles occupied by the presenting author.

## Peer Blended Mentoring in Flipped Learning

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Friday, 21st June - 10:00: (Nexus 126) - Roundtable discussion

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*Ms. Seda Canlı (Ankara University), Dr. Ferda Gursel (Ankara University, Faculty of Sports Sciences), Dr. Ozlem Alagul (Kastamonu University, Department of Physical Education and Sports Teaching)*

As a result of important social, economic, cultural and technological changes in the 21st century, learner profiles have changed in educational environments. Thus, education policies emphasize that teacher-learner interaction process should be managed well. In the literature, peer mentoring interventions in teacher education programs are shown to not only make it easier for learners to learn from similar ones in terms of age and level, but also facilitate the transition of new learners to a new learning environment. The concept of “peer blended mentoring”, which combines both peer mentoring and online peer mentoring, is one of the innovative learning approaches in flipped learning practices. Starting from this, the aim of this case study was to; explore the experiences of graduate student with the role of peer mentor in 14 weeks a course in PETE program. The data sources of this study were; ; reflective diary of peer mentor, whatsapp interviews, interactions in social media and post-term student reflections. Data were analyzed by thematic analysis. Findings showed that peer mentor role was started with “*helper*” in the first weeks because the students consulted to her about in-class and out-of-class questions. Then, it changed to “*adapting to students*” role because as a result of feedbacks from students about both the process of course and technological tools, she changed and adapted herself to them. And the “boundary spanner” role was emerged as a facilitator in solving the problems between both lecturer-student in in-class/out-of-class time and among students while doing group works. As a result; through peer blended mentoring, it can be said that the interaction between teacher and student is effective in minimizing the differences between generations. In addition to that, the student in the learner role and the student in the mentor role can continue to learn through mutual interaction.

## Making Movement Analysis Stick!

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Friday, 21st June - 10:15: (Nexus 126) - Roundtable discussion

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*Dr. Helena Baert (SUNY CORTLAND), Dr. Matthew Madden (SUNY CORTLAND)*

In physical education, teachers have to observe, assess, analyze and enhance gross motor skills to strengthen their students' physical literacy. Gross motor skill development is critical in the development of physically literate children. This session will explore the experiences of one physical education teacher education (PETE) program on their process of integrating movement analysis skills and knowledge. This process included various instructional strategies such as a service-learning field experience, weekly practice and formal quizzes, real time movement analysis practice with preschool children ages 2 to 5, station card creation using fundamental movement skill (FMS) posters, inquiry-based in class facilitation and online FMS modules. The online modules included 16 FMS to assist teacher candidates with developing knowledge of critical elements and motor development stages (Gallahue, Ozmun, & Goodway, 2012). A mixed-methods study that identified the effects and perceptions of the online FMS modules collected pre- and post-survey data, pre-, post- and retention test scores to evaluate the effectiveness of the online program. Results indicated an improvement in post test scores and retention scores over time. Overall, the presenters will share program data and practical strategies related to course design and delivery that informed the continuation of movement analysis implementation.

## **The effect of sport and d physical activity on the mental skills ( cognitive and sychological) in pupils of secondary and middle school graduate ( comparison study according to age and gender)**

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Friday, 21st June - 10:30: (Nexus 126) - Roundtable discussion

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Dr. Youssouf SAIDI ZERROUKI (University of Hassiba Benbouali, Chlef.)

**Aims of the study:** The objective of our current study is to try to know the differences in mental skills in the students of exercise for physical activities and sports by age variable and gender.

**Sample of the study:** The sample of the study consists of 545 students divided between the middle school and secondary and from both of male and female, where the number of females was 91, and the number of males was 463.

**Pilot study( instrument ):** Each student completed the free mental skills assessment FMSQ of(bull 1996) as it had been modified and interpreted form English to Arabic language The FMSQ constituted of 28 items that measured seven mental skills(four cognitive skill and three sychological skills).

**Results of the study:** The study showed that there were no significant differences according to the age or age, difference in some mental skills, such as the ability to concentrate, prepare and motivate among the groups that ranged in age from 11-14 years compared to 15-19 years. for the sex variable There were no differences between males and females in most mental skills except for the ability to focus and control the anxiety that was in favor of males compared to females.

**Keywords:** mental skills, physical and sport activities, age, sex

## The Status of Physical Activity in KwaZulu-Natal Schools, South Africa

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Friday, 21st June - 10:45: (Nexus 126) - Roundtable discussion

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*Mrs. Chantell Gouws (University of Zululand)*

Schooling includes learning, preparing and achievement. Physical Education provides the necessary framework to address the holistic development of learners. It takes place in a human justice background where the school provides the context for developing active and responsible citizenship.

Recent research revealed an increased incidence of childhood obesity and overweight children that could be attributed to the decline in physical activity and aerobic fitness, accompanied by the rise in sedentary life style illnesses among South African school aged children. This can be directly linked with the low status attributed to of Physical Education after the inception of Outcomes Based Education. Life skills/Life Orientation was introduced in the school curriculum and Physical Education was included in this learning area/subject.

The purpose of the study was to determine the current status of Physical Education in KwaZulu-Natal, South Africa. Participants between the ages of 13-14 years and 17-18 years from various schools in KwaZulu-Natal were asked to complete questionnaires.

The significance of the study shows the lack of resources, large classes and limited exposure of learners to physical education between the various schools (township vs private) in South Africa. This research may open up opportunities for Higher Education Institutions to inform education and training within Physical Education where the gaps have been identified within the province. This research may also align and develop norms and standards for the quality of Physical Education in schools by providing the Department of Basic Education (DBE), Sports and Recreation South Africa (SRSA) and UNICEF, with the current practice of the current status and scope of Physical Education being delivered by various stakeholders in state schools.

# **Symposium 9**



## **“Do as I say...?”: Following through with Continuous Professional Development as an ethical responsibility, and professional necessity.**

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Friday, 21st June - 09:30: (Nexus 237) - Symposium

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*Prof. Hans van der Mars (Arizona State University), Dr. Phillip Ward (The Ohio State University), Dr. Murray Mitchell (University of South Carolina), Dr. Hal Lawson (University at Albany-SUNY), Dr. K. Andrew R. Richards (The University of Illinois at Urbana-Champaign)*

### **General Session Description:**

Continuous professional development (CPD) for primary and post-primary physical educators has received increased attention and has been a target for inquiry in recent years (e.g., Parker & Patton, 2017). The same cannot be said for Physical Education Teacher Education (PETE) professors. Generally, it is assumed that PETE faculty emerge from doctoral programs with a commitment to deliberate and CPD across their career. Drawing from a U.S. context, in this symposium, we propose that CPD is as important for PETE faculty as it is for K-12 physical educators. Attendees will first be introduced to a) the question of whether there is/should be a common and shared foundational knowledge for PETE professors, b) the assumptions held about CPD for PETE professors and how it may or may not impact physical education practices across all levels, and c) personal and contextual (workplace) factors that affect CPD expectations, opportunities, and behaviors. This is followed by an overview of how, from an occupational socialization perspective, PETE faculty may not view contributing to, staying current about or assessing the implementation of “best available evidence” as essential. Yet, this gap may also be a possible catalyst for larger scale redesign efforts for K-12 physical education, PETE, and D-PETE programs. The third part of the symposium will include sample CPD strategies, with an emphasis on the use of “Self-study of teacher education practice” (S-STEP). S-STEP is a form of practitioner inquiry in which physical education teacher educators critically examine their practice through various lenses which may include attention to specific goals or research questions. During the latter portion of the symposium, audience members will have the opportunity to discuss strategies for maintaining currency. Although based on the U.S. context, the questions posed, may have important implications for PETE program internationally. **(292 words)**

**Part 1 Presenters: Hans van der Mars, Arizona State University; Phillip Ward, The Ohio State University)**

### **Title:**

Are PETE Professors Still the Problem? ... Continuous Professional Development for PETE Faculty

### **Abstract:**

In his 1985 keynote to AIESEP in Garden City, Professor Larry Locke argued that professors might be a key reason for the lack progress in PETE. Generally, it is assumed that those in Physical Education Teacher Education (PETE) will engage in purposeful and continuous professional development (CPD) across their career. In this session, we will outline some of the challenges facing PETE programs, which, to some extent, mirror those faced by K-12 physical educators: Institutional expectations, declining program enrollments, a culture of “no one is going to tell me what to do”, a lingering unease with evidence, and an increasing emphasis on corporate approaches to managing institutions of higher education are but some examples of challenges facing PETE faculty. Key questions to be addressed, include: “How do PETE faculty conceptualize their own CPD?”; “In what deliberate CPD activities do PETE faculty engage on an on-going basis?” Next, we discuss why PETE faculty’s CDP should become a process-oriented priority, that can aid PETE faculty develop “adaptive competence” in navigating an ever-changing teacher education

landscape. (175 words)

**Part 2 Presenters:** *Murray Mitchell, University of South Carolina, Hal Lawson, University at Albany-SUNY*  
**Title:**

Continuous Professional Development for PETE Faculty: How Can Moments Become a Movement for Redesign?

**Abstract:**

There is evidence that teachers tend not to use theory and research to inform their work (e.g., Lawson, 1992; Locke, 1969). Some of these teachers form the talent pool from which PETE faculty are drawn. Further, the waves of socialization PETE faculty experience—an undergraduate degree, for some a master’s degree, and school experience—have differential impacts on role perceptions, identities, and performance (Mitchell & Lawson, 1986). Mirroring K-12 teacher socialization, biography and school experience often supersede D-PETE program impact, and this is one reason why many D-PETE graduates—today’s PETE faculty—believe personal practice experience trumps theory and research. This role orientation contributes to the reproduction of a status quo in PETE, and school Physical Education. This gives rise to a generative question: What holds promise to break this reproductive cycle? None of these moments of influence has created a movement for change. Paradoxically, research that documents sub-optimal outcomes from school, PETE, and D-PETE programs is a potential catalyst. Overall, this indicates needs for major improvements and bold redesign (Lawson, 2018). As PETE faculty perceive needs for reform, opportunities arise for collective action, including research-supported continuous professional development, to achieve sustained impact at scale. Learning moments can become social movements. (199 words)

**Part 3 Presenter:** *Kevin Richards, University of Illinois-Urbana/Champaign.*

**Title:**

Self-Study as Professional Development in Physical Education Teacher Education

**Abstract:**

Self-study of teacher education practice (S-STEP) is a form of practitioner inquiry in which teacher educators critically examine their practice in relation to specific goals or research questions with the overarching purpose of both improving practice and developing recommendations that can be shared with others (LaBoskey, 2004). Toward this end, S-STEP provides one avenue for teacher educators to engage in focused, individualized professional development while learning from one another in a social environment (Bullock & Christou, 2016). I will discuss the implications of S-STEP for the physical education teacher education (PETE) community, drawing from my own and colleagues’ scholarship. Specifically, I will highlight different levels and approaches to S-STEP research, and argue that it can be used to address professional development needs of individual and communities of teacher educators at the PETE program level (Hordvik et al., 2018). I will also argue that the focus of S-STEP research can encompass all three university missions of teaching, research, and service (Richards & Ressler, 2016), and that it can become an integral component of doctoral education so as to develop a reflective orientation toward practice that continues into and throughout teacher educators’ careers (Lynch et al., 2018). (200 words)

# **Leadership, Social Development and Class Management**

# Classroom Management in PE – Evaluation of a Seminar Concept in Physical Education Teacher Education

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Friday, 21st June - 09:30: (Nexus 275) - Oral Paper

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*Mr. Tim Linka (University of Potsdam), Prof. Erin Gerlach (University of Potsdam)*

## **Introduction**

In order to approach the question of quality in physical? Education (QPE), an analysis of the depth structures of teaching is needed. Therein classroom management appears to be of particular importance in a theoretical manner due to the specific circumstances of PE as well as in empirical manners. With regard to the first phase of Physical Education PE? Teacher Education (PETE), the question arises as to how classroom management skills can be promoted during a four-month internship in schools.

## **Theoretical background**

The present project is devoted to the development and evaluation of a seminar concept for classroom management. A 3x3 matrix with the dimensions of “withitness”, “process management” and “behavior management”, as well as three subcategories, was developed in collaboration with the Department of Inclusive Education at the University of Potsdam.

## **Method**

Under the given framework conditions of the internship course, the question arises whether the classroom management of students changes during the practical phase in a two-group pre-post design. On the one hand, the effect of a structured reflection of students’ own videographed teaching lessons carried out by the intervention group has a positive effect on students’ self-assessment. On the other hand, the questionnaire-based assessment of the children’s perspective serves to collect the effects of the intervention on the level of action in the classroom. The evaluation of the intervention takes place over three measurement times.

## **Results & Discussion**

In 2017, the seminar concept and the measuring instruments were piloted. In terms of the evaluation of the seminar concept, therefore the sample size was limited and has to be treated with caution (IG=15, VG=15). However, it can be deduced from the results that a change was apparent, particularly in the area of “process management”. The evaluation of the results in 2018 are currently being analyzed.

## Successfully fostering social development through secondary school physical education: the development of a new framework to integrate supporting roles

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Friday, 21st June - 09:51: (Nexus 275) - Oral Paper

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*Ms. Femke Van Duyse (Ghent University), Prof. Leen Haerens (Ghent University), Ms. Veerle Permentier (Hogeschool Gent), Dr. Isabel Tallir (Department of Education), Dr. Stefanie Verstraete (Howest), Ms. Veerle Vonderlynck (Department of Education)*

**Background and purpose:** While the development of social skills is a widely-accepted goal of physical education, many teachers struggle with the realization of these goals (Jacobs, Knoppers & Webb, 2013). We hypothesize that through the execution of supporting roles (e.g. coach, referee, feedbackgiver, captain,...), students will be able to progressively acquire important social competencies such as taking the lead, listening to others, interacting in a confident and empathic way, and providing and accepting feedback to and from others. As such, this study aimed to develop a framework that allows to systematically integrate supporting roles into physical education lessons.

**Methods:** Two researchers, four physical education teacher educators (PETE) and seven teachers collaborated to develop the framework, through an iterative circle of developing (preparing a lesson), testing (teachers gave the lesson), reflecting (based on data), and adapting (developing an new lesson). Collected data consisted of teacher and student interviews, video's tapes, and teachers' reflective diaries.

**Results:** A framework was developed that consists of a concrete description of the skills, knowledge and attitudes that are needed to successfully execute a supporting role. Four skills were identified: 1) observing, 2) recognizing, 3) reacting and 4) making adjustments. Two different types of knowledge were recognized: 1) knowledge of the movement, and 2) knowledge of the steps to be taken when executing the role. Finally, every skill was connected with important attitudes. To illustrate, when students observe each other, they need to be concentrated; when they make adjustments they need to be friendly and constructive. Learning lines were created (e.g. from observing one other student to a team of players).

**Conclusion and implications:** A framework was created that allows for teachers to successfully integrate supporting roles into their lessons to the benefits of students' social learning. The framework is already widely implemented in Flanders (Belgium).

## Student Perspectives of Leadership during Group Work

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Friday, 21st June - 10:12: (Nexus 275) - Oral Paper

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*Dr. Sheri Brock (Auburn University), Dr. Nikki Hollett (University of Wisconsin-Whitewater), Mrs. Jessica Richards (Auburn University), Ms. Brenna Cosgrove (Auburn University)*

Sport Education is a form of group work that features roles and responsibilities assumed by students. Team roles (e.g., captain, manager) are typically determined by team nomination, and frequently may be based on perceived status or power relations, as opposed to established leadership capabilities (Brock, Rovegno, & Oliver, 2009). Students serving in team leadership roles in Sport Education may receive little to no training in how to successfully serve in the role, therefore students must navigate the responsibilities of managing the group based on their own knowledge and experiences. This study examined the experiences of 16 grade five students serving in the role of captain during a Sport Education unit in an elementary physical education class. Data collection included focus group interviews with team captains during the pre-season and post-season segments of the unit. Interviews were transcribed and analyzed utilizing techniques of constant comparison. Results produced the following five themes based on student perspectives of their leadership as a team captain during the unit: (1) accepted sense of responsibility; (2) lack of respect from team members; (3) democratic versus authoritarian methods of leadership; (4) power sharing based on a gradual transition to a strategic approach as necessitated by the unit; and (5) perceptions of success and failure as a team leader. Overall, the team captains appeared to take their role seriously and evolved throughout the unit displaying a caring, focused, and transformative demeanor with team success at the forefront. Additionally, the captains noted a direct link between failed leadership approaches and lack of team success. Incorporating leadership training during group work featuring the strategies discovered by team captains in this study is suggested as an avenue for future research to empower students to feel more confident in their role as captain in, and hopefully beyond, the physical education setting.

# **Teacher Content Knowledge**

# Knowledge in Physical Education: Pedagogical Significance and Didactic Implication

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Friday, 21st June - 09:30: (Nexus 154) - Oral Paper

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*Ms. Lara Stamm (Technical University Dortmund)*

## **Background and Purpose**

Although Physical Education (PE) is a compulsory subject at German schools, it is often considered as “only” a practical subject with high priority of active exercise time (cf. Kastrup, 2011). However, such PE does not do justice to the principle of ‘reflected practice’ (close practice-theory linkage) demanded in the core curriculum. The purpose of this presentation is to understand the problem on a theoretical level and to show possible solutions for practical establishment of more knowledge-based contents in PE. The pedagogical potential of PE can in the future only be fully exploited with a corresponding theoretical background.

## **Main Points**

In order to understand the deficient situation and to improve it in the long term, the following knowledge-based aspects must be taken into account for PE:

- Educational potential of cognitive phases
- Contents of knowledge in PE (cf. Wagner, 2016)
- Positioning ‘knowledge in PE’ in the subject-cultural context

## **Link to Conference Aims and Themes**

The topic clearly relates to the conference theme “(1) Physical Education and Physical Literacy”, since the practice-theory linkage of physical literacy serves to promote the whole person.

## **Conclusion**

Against the background of its currently increasing importance in German school sports research, the (practical and knowledge-based) contents and structures of PE must be adapted in such a way that various forms of knowledge can be imparted. One possible implication is the spatial separation of practice and knowledge (PE in the classroom). Further empirical research is needed in this respect.

## **Literature**

Kastrup, V. (2011). What do sports teachers think of theoretical parts in sports lessons? *sportunterricht*, 60 (12), 376-380.

Wagner, I. (2016). *Knowledge in Physical Education* (Edition Schulsport, 1st edition). Meyer & Meyer.



## The German PE concept “Multiperspectivity” and its representation in PE teachers’ pedagogical content knowledge (PCK)

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Friday, 21st June - 09:51: (Nexus 154) - Oral Paper

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Prof. Julia Hapke (Eberhard Karls Universität Tübingen)

**Background:** German (high school) curricula strongly emphasize the implementation of a concept called “Multiperspectivity” in PE. The central idea is that PE should be taught under several pedagogical perspectives such as “cooperation” and “performance” in order to enable students to engage in lifelong self-determined activity in sport. However, it is unclear how this concept is actually represented in PE teachers’ PCK.

PCK is conceptualized as the consolidation of content and pedagogy into an understanding of how particular topics are presented for instruction and as a continuum between cognitive disposition and observable behavior (Blömeke, Gustafsson & Shavelson, 2015).

**Methods:** We used a qualitative approach with problem-centered interviews, video observation, and stimulated recall interviews in order to investigate PCK regarding the perspectives “cooperation” and “performance” of PE teachers (N=9) in German high schools.

**Results:** The topics “cooperation” and “performance” both played an important role in teachers’ PCK. However, there were differences between teachers’ PCK and the academically theorized concept. Different from the concept, teachers avoided or failed to use *cognitive activation* (cognitive-reflexive preparation and reappraisal of sporting activities), *openness* (opening up PE contents and methods towards students’ ideas, requests and needs), and *individualization* (applying individual criteria and benchmarks). These differences mainly occurred concerning the observable behavior, and less so in the cognitive disposition of PE teachers. The reasons for these gaps are complex. For example, it seemed to be difficult for teachers to realize cognitive activation on the one hand and maximize movement time on the other at the same time.

**Conclusion:** Our results show for which aspects of the concept PE teachers in Germany require further help and training on how to successfully implement multiperspectivity into their PE classes.

Blömeke, S., Gustafsson, J.-E. & Shavelson, R. J. (2015). Beyond Dichotomies. Competence viewed as a Continuum. *Zeitschrift für Psychologie*, 223(1), 3-13.

# Analysis of task progressions and student learning as a function of specialized content knowledge

Friday, 21st June - 10:12: (Nexus 154) - Oral Paper

*Prof. Peter Iserbyt (KU Leuven), Dr. Rosalie Coolkens (KU Leuven), Mr. Kian Vanluyten (KU Leuven), Mr. Joren Looockx (KU Leuven),  
Dr. Jonas Martens (KU Leuven), Prof. Phillip Ward (The Ohio State University)*

**Background and Purpose:** Effective teaching requires the purposeful selection and sequencing of instructional tasks to facilitate student learning. Specialised content knowledge consists of knowledge of task progressions for teaching a particular skill or content domain. This study investigated the quality and quantity of task progressions and student learning as a function of specialized content knowledge.

**Methods:** Three teachers each taught a 5-lesson crawl swimming unit to two classes of elementary school children ( $n=44$ ). Next, they received a 3-hour professional development workshop in crawl focusing on specialized content knowledge (i.e., knowledge of task progressions). Finally, they again each taught a 5-lesson crawl swimming unit to the same classes. Their use of instructional tasks, appropriateness of tasks (i.e., developmentally appropriate and congruent for teaching crawl), and appropriateness relative to the previous task was analyzed using live observation. Student learning was assessed by measuring the number of strokes needed to swim 50m and their 50m sprint time.

**Results:** Prior to the workshop, 57% of tasks were informing, 16% refining, 19% extending, and 7% applying. 19% of all tasks were appropriate and 17% were appropriate relative to the previous task. After the workshop, 39% of tasks were informing, 18% refining, 36% extending, and 7% applying. 87% of all tasks were appropriate and 79% were appropriate relative to the previous task. For number of strokes, repeated measures ANOVA detected a significant improvement after the workshop,  $F(2, 44)=10.20$ ,  $p<.001$ ,  $ES=.32$ . For sprint time, students improved significantly prior to the workshop,  $F(2, 39)=7.59$ ,  $p<.01$ ,  $ES=.28$ , but not following the workshop.

## **Conclusion and Implications:**

This study demonstrated that teachers' task progressions 1) differed substantially as a function of a specialised content knowledge workshop and 2) affected student learning. Knowledge of effective task progressions is crucial for student learning and should be integrated into professional development for teachers.

# **Children's Learning**

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## Is play-based learning is leaving children's learning to chance?

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Friday, 21st June - 09:30: (Nexus 155) - Oral Paper

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*Mr. Ross Williams (Murdoch University, Perth, Western Australia)*

Opportunities for play-based learning have diminished in Western Australian (WA) Early Childhood Education (ECE) services. The demise of play in ECE is attributed to the introduction of more structured programs and formal lessons for children in the belief that these will contribute to better learning outcomes. Contemporary political rhetoric is that play-based learning is leaving children's learning to chance. This presentation will share of the results of an innovative play-based project conducted within a ECE setting. All project stakeholders provided input into the development of the project; ECE staff (n=8), Pre-Service teachers (PST) (n=118) and their University mentor (n=1). A series of 12 play-based interventions were designed and implemented that targeted the development of the children's Fundamental Movement Skills (FMS). Over a period of 2 weeks, children aged between 3-5 years could freely choose between 7 play-based activities running for approximately 15-20 minutes. Each intervention was implemented by PSTs under the supervision of their University mentor and the ECE staff. Each PST implemented their play-based activity focused on at least one FMS. PSTs were required to: *Develop a learning object that supported the skill; Encourage participation in their activity; Assess the children's performance.* All stakeholders were asked to provide feedback about the efficacy of the interventions through written responses. These data were collated and emergent themes were identified: *FMS learning can be facilitated in ECC settings using structured play based approaches; a range of learning outcomes were achieved beyond the targeted FMS for all stakeholders; the line between formal FMS lessons and structured play-based approaches is 'blurred'.* The various perspectives from the key stakeholders will be summarised in this presentation and suggestions for future play-based initiatives in ECE settings will be discussed in light of the findings from this study.

Word Count: 290

## The complexity of young children's physical education.

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Friday, 21st June - 10:12: (Nexus 155) - Oral Paper

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*Dr. Kristy Howells (Canterbury Christ Church University), Dr. Mike Jess (University of Edinburgh)*

This paper is based on the belief that young children's physical education is a much more complex phenomenon than is often portrayed in the literature. Using key principles from complexity thinking, the paper discusses how, as children grow older, they iteratively engage in a self-organising process that involves regular negotiation of the personal and environmental boundaries that are part of their daily lives (Jess, 2019). From a physical education experiences, this recursive process involves engagement in a range of structured and unstructured learning activities that, to varying degrees, help children develop physical activity habits and movement competence. This complex mix of physical activity and movement learning is central to children developing the physical education foundation that will act as the catalyst for successful engagement in sport, dance and other physical activities as they get older (Howells, 2017). This complex learning process however is not a one-size-fits-all experience but a dynamic, emergent and non-linear process for each child and requires to be appropriately differentiated over time. Young children's physical education is subsequently not something that should simply be left to chance but should be a focus of primary/elementary school and preschool/kindergarten programmes. Teachers and early years' practitioners need to be supported to develop the knowledge and skills to ensure that young children are offered regular opportunities that help them develop physically active habits and movement control and coordination. Critically, these learning experiences should not be isolated to the gymnasium but should act as the basis of a meaning-making experience that connects physical education across children's lives in school, the community and at home. The presentation concludes by offering suggestions as to how children's physical activity habits and movement competence can be developed through a long term capacity building process.

Howell, K., (2017) *Developing Curiosity and Physical Development* in Howells K., with Carney, A., Castle, N. and Little R., *Mastering Primary Physical Education*. Bloomsbury, London, UK.

Jess, M (2019) *The Complex Nature of Early Childhood Movement Skill Development*, in Duncombe, R., (Ed), *Young Children's Physical Development Needs: (Re)Defining Physical Education in the Early Years*, Taylor & Francis, London, UK

# **Emotional Dimensions of Movement**

## The Joy of Movement

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Friday, 21st June - 09:30: (Nexus 156) - Oral Paper

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Dr. Jens-Ole Jensen (VIA University College)

Sport, PE and leisure time physical activities has historically been legitimized by a range of educational benefits (Bailey et al., 2009) and this has been reinforced by a growing number of reviews that emphasize the positive impact that movement activities have on human wellbeing, learning etc.. Characteristically, many of these studies instrumentalize movement and some even claim that feeling movement pleasure could be counterproductive to the objectives of PE and that it trivializes physical activity (Whitehead, 1988).

The heavily instrumentalization (of the discourse) of movement calls for refinement. A language that also accommodate the existentialistic qualities of movement is needed. The purpose with this presentation is to focus on the essence of movement by qualifying the understanding of the joy of movement.

The presentation will contain a phenomenological inspired analysis of movement pleasure and address questions like: How is the joy of movement to be understood? Is the joy of movement a volatile existential phenomenon or is based on embodied habits (Bourdieu, 1977; Stevens, 2017)? How does the joy of movement relate to immersion and variation, mastery of skills, manifest togetherness (Bauman, 1995) etc.?

Pleasure, emotions and affective aspects of movement, sport and PE is often mentioned as the motivation for participating in physical activities, in official documents or as the purpose for PE - but these aspects are rarely elaborated. The study contributes by elaborating on the phenomenon of joy of movement, and by offering a language for practitioners, policy makers and researchers to talk about and ideally prioritize this existentialistic dimension of movement activities.

### Literature

Bailey, R., Armour, K., Kirk, D., Jess, M., Pickup, I., & Sandford, R. (2009). The educational benefits claimed for physical education and school sport: an academic review. *Research Papers in Education*, 24(1), 1–27. <https://doi.org/10.1080/02671520701809817>

Bauman, Z. (1995). *Life in fragments. Essays in Postmodern Morality*. Oxford: Blackwell.

Bourdieu, P. (1977). *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.

Stevens, S. (2017). *The joy of movement in physical education: The enfleshed body*. University of Canterbury. Whitehead, J. 1988. Why children take part. *The Isis Journal* 1: 23–31

## Passion and movement

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Friday, 21st June - 10:12: (Nexus 156) - Oral Paper

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*Mr. Ole Lund (VIA University College)*

Passion is often experienced as a strong and intense emotional attraction and movement towards certain persons, things, ideas or activities. In bodily expressive practices such as sport, passion is often mentioned as an essential driving force among the best achieving athletes. However, passion can also be understood as a fundamental human aspect. The famous Danish philosopher, Søren Kierkegaard, even suggested that human beings are passion. This suggests that passion is an important factor to consider when it comes to all forms of physical education. The element of passion has been mentioned and emphasized in studies on sport and PE, but it's lived and existential qualities and how these may be promoted pedagogically is rarely elaborated. Thus, the purpose of this presentation is to elaborate on the phenomena of passion and how it may be promoted during PE-activities.

In particular, the presentation will explore the connection between passion and movement, and suggest:

1. that our passion in relation to physical activity is not a drama happening in an inner state of consciousness, but is enacted in the world as a way of moving in and with the world (Thøgersen, 2013),
2. that passion is not a matter of individual or internal impulses, but of how we and others (who we are physical active with) move (each other) (Gallagher, 2018; Fuchs & Koch, 2014),
3. that promoting passion for physical activities is not so only a matter of giving children and young people direct instructions and clear explanations, but also a matter of moving them without them noticing that they are being moved (Sæverot, 2013).

The study contributes by conceptualizing a dimension of PE that may be difficult to put in to words, and thereby help practitioners, movement educators and PE-teachers to work purposively with this dimension in practice.

### **Literature:**

Fuchs, T., & Koch, S. C. (2014). Embodied affectivity: on moving and being moved. *Frontiers in psychology*, 5, 508.

Gallagher, S. (2018). *Enactivist Interventions*. Oxford University Press.

Sæverot, H. (2013). *Indirect pedagogy*. Springer.

Thøgersen, U. (2013). Lidenskab og dannelse: formning af menneskets responsitet. In: Pahuus, M. (red.), *Dannelse i en læringstid*. Aalborg Universitets forlag.



# **Social Constructs of Public Health**

## Social determinants of healthy behaviour and well-being of young people in Medellín

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Friday, 21st June - 10:12: (Nexus 157) - Oral Paper

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*Dr. Elkin Arias (Universidad de Antioquia), Mr. Albeiro Larrea (Universidad de Antioquia), Dr. Diana Montoya (Instituto Tecnológico Metropolitano), Mrs. Olga Larrea (Instituto Tecnológico Metropolitano), Ms. Cristina Rivera (Universidad de Antioquia)*

In Colombia, 19.6% of the population is made up of adolescents. The social situation in this country with difficult access to education, early start of sexual life, intense urban migration and lack of job training, confronts this sector of the population with issues such as juvenile delinquency and violence, the consumption of toxic substances and the unwanted pregnancy. Of particular seriousness are the problems associated with mental health disorders. The present study is aimed to obtain knowledge about the health related behaviours of young people and offer a complete description of the behaviours and the perception of health and well-being of the youth of the city of Medellín.

$\chi^2$  tests were used to compare differences in physical activity and food habits by gender. The results indicate that 20% of the young people were physically active  $\geq$  five days a week, 29% watch TV  $\geq$  4 hours a day and 18% do homework 4 hours a day. Boys were more physically active than girls ( $P, 0.01$ ), whereas girls reported doing more homework and watching TV ( $P, 0.001$ ). Girls reported more daily consumption of fruit and vegetables than boys ( $P, 0.001$ ), and less consumption of soft drinks and sweets ( $P, 0.01$ ).

We conclude that young people's behaviour in Medellín in relation to physical activity and eating needs to be improved. Parents play a direct role in children's physical activity and eating patterns. The results indicate that policies need to be developed, implemented and evaluated to safeguard physical activity and healthy eating habits.

# **Perspectives on PE Assessments**

# The influence of roles, relationships and social processes in the development of examinable physical education in Ireland

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Friday, 21st June - 09:30: (Nexus 158) - Oral Paper

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*Mr. Dylan Scanlon (University of Limerick), Prof. Ann MacPhail (University of Limerick), Dr. Antonio Calderon (University of Limerick)*

**Background:** A Physical Education Development Group (PEDG) were responsible for constructing a new school subject curriculum, Leaving Certificate Physical Education (LCPE; an optional high-stakes examinable subject), in Ireland. This group consisted of professionals who were nominated from a list of relevant agencies. The study aimed to explore the process of curriculum development and shed light on how the PEDG, and the influence of roles and relationships (and the predispositions of individuals) within that group, shaped such a curriculum. The study also aimed to understand the conceptualisation of examinable physical education in the Irish context by examining the social processes which directly (and indirectly) influenced the development of the LCPE curriculum.

**Methods:** Semi-structured interviews were conducted with ten PEDG members who were purposively chosen. Figurational sociology (Elias, 1978) was the underpinning framework for the study. The use of figurational sociology helped us understand the unrestrictive or constraining nature of the roles and relationships within the PEDG. Data analysis occurred in a combined inductive and deductive manner (Charmaz, 2014).

**Results:** This study raised a number of considerations which can be applied to all school subject curriculum development. Firstly, we question the role (and purpose) of 'representative roles' in subject development groups. Secondly, we argue the need for training for school subject curriculum development group members and their nominating agency. Finally, we express concern for the role of teachers in the curriculum development process and argue that they play a crucial and significant role in the school subject curriculum development process.

**Conclusions:** This study supports Goodson's (1983) and Penney's (2006) conceptualisation of the contested and socially constructed nature of the curriculum development process and highlights the explanatory value of figurational sociology (Elias, 1978) in best understanding the curriculum development process.

## Exploring stakeholder perceptions of a physical literacy assessment tool for children aged 5-7

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Friday, 21st June - 09:51: (Nexus 158) - Oral Paper

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*Ms. Hannah Goss (Liverpool John Moores University), Ms. Cara Shearer (Liverpool John Moores University), Mrs. Elizabeth Durden-myers (University of Gloucestershire), Prof. Zoe Knowles (Liverpool John Moores University), Dr. Lynne Boddy (Liverpool John Moores University), Dr. Lawrence Foweather (Liverpool John Moores University)*

**Purpose:** UNESCO (2015) highlighted the importance of developing physical literacy from childhood, though it remains unclear how best to evidence an individual's physical literacy journey. The aim of this study was to explore key stakeholders views of current practice, future directions and effective implementation of physical literacy assessment, with a view to informing the development of a rigorous, authentic, and feasible physical literacy assessment.

**Methods:** Purposive samples of children aged between 6 - 7 years (n=40), primary school teachers (n=23) and experts with an interest in physical literacy (academics n=13, practitioners n=8) were recruited to take part in a series of concurrent focus groups. Each group followed a semi-structured focus group guide and on average, included 6 participants and lasted 40 minutes. All focus groups were audio recorded, transcribed verbatim. Data was analysed in an inductive manner and key themes were represented by pen profiles.

**Findings:** Preliminary findings indicate that all stakeholders viewed the assessment of physical literacy as important, but in line with well-established barriers, it was not a priority in many schools, resulting in a variable practice. Crucially, no assessment of the affective and cognitive domains of physical literacy was reported to be in used schools. Children recognised that teachers were constantly making judgements to help them improve, agreed a more formal assessment could help record this, and that assessment should be differentiated for each child and 'it should be fun, but challenging'. Teachers reported that future assessment should be time-efficient, simple and useful.

**Conclusion:** Study findings reveal a demonstrable need for a feasible physical literacy assessment tool that can be effectively used in schools. To our knowledge, this is the first attempt to involve these stakeholders, and triangulate the responses, in the development stages of a physical literacy assessment. These findings will provide an evidence base to inform the development of a theoretically aligned physical literacy assessment tool, suitable for use in schools. In turn, this will enable robust, empirical evidence to be collated, to evidence theory, and inform practice and policy.

Key words: physical education, measurement, focus groups, physical, affective, cognitive.

# **eSport and SmartPhones**

## E-SPORTS: MOTIVATION SOURCES OF COMPUTER GAMES

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Friday, 21st June - 09:30: (Nexus 241) - Oral Paper

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*Dr. Selami Özsoy (University of Bolu Abant İzzet Baysal)*

Due to the rapid development of information technology, computer games are played widely by every age group since the 1980's. This study aimed to present the motives for the players who play computer games. In this context, Computer Gaming Motivation Scale developed by Munusturlar and Munusturlar (2017) was applied to 213 undergraduate students attending Bolu Abant İzzet Baysal University and Düzce University. After the factor analysis, the 17-item scale was found to include 3 factors: "entertainment", "benefit" and "escape". T-test and One-Way Variance Analysis (ANOVA) were applied to the data. Results show that as playing time increased, participants' motivation for entertainment, escaping from the real world and benefit increased.

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## Smartphone Addiction: Predictors and Prevention

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Friday, 21st June - 09:51: (Nexus 241) - Oral Paper

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*Mr. Jay Olson (McGill University), Ms. Dasha Sandra (McGill University), Mr. Denis Chmoulevitch (McGill University), Ms. Moriah Stendel (University of Oregon), Dr. Signy Sheldon (McGill University), Dr. Amir Raz (Chapman University), Dr. Samuel Veissière (McGill University)*

Students in many countries are showing increases in smartphone addiction, which has been linked to depression symptoms and poor academic performance. Yet, few studies have explored the predictors of smartphone overuse or how to prevent it. Over three studies, we explored (1) personality correlates of smartphone overuse, (2) its associated app usage patterns, and (3) a behavioural intervention aimed to reduce it.

In Study 1, we predicted that smartphone use would correlate with another absorbing, high-immersion, social experience: hypnosis. We hypnotised 359 undergraduate students and then measured their hypnotic suggestibility — the tendency to respond positively to verbal suggestions. Participants then completed the Smartphone Addiction Survey. Suggestibility correlated with smartphone use ( $r=.20$ ), with a stronger relationship in men ( $r=.27$ ) than in women ( $r=.15$ ). These results support the idea that the absorbing or social aspects of smartphones may drive addiction.

In Study 2, 54 undergraduate students reported their reasons for smartphone use (e.g., socializing) and their daily screen time. A cluster analysis revealed two distinct usage patterns: (1) as a tool (e.g., for directions), and (2) to socialize or out of boredom. Only the latter pattern correlated with daily phone use ( $r=.35$ ).

In Study 3, we tested a behavioural intervention to reduce the absorbing, social, and boredom-related aspects of smartphones related to overuse. Eleven pilot participants underwent a week-long intervention involving disabling non-essential notifications, hiding social media apps, and keeping their phones out of reach when not in use. Participants showed high compliance (81%) with these guidelines, which were effective in reducing smartphone use by 35 minutes per day (216 to 181 minutes). This intervention will give educators validated and feasible guidelines to reduce smartphone usage — and its negative effects — in their students.



# **Approaches to PE Challenges**

## “It helped us to be stronger!”: teachers’ empowerment through a learning community in a full-time Brazilian school

Friday, 21st June - 09:30: (Nexus 242) - Oral Paper

*Ms. Luiza Lana (University of São Paulo), Dr. Melissa Parker (University of Limerick), Dr. Carla Luguetti (Victoria University),  
Dr. Michele Viviane Carbinatto (University of São Paulo)*

**Background and purpose:** It is known that teachers who work in disadvantaged schools feel empowered to face challenges when working through learning communities (LC) (Tannehill & MacPhail, 2017). Further, there is a consistent body of research highlighting the benefits of LCs to achieve effective continuing professional development (CPD) (Parker & Patton, 2017). There is, however, a lack of evidence regarding teachers who work in the precarious conditions that exist in Brazilian schools. The purpose of this study was to explore how a LC supported the CPD of PE teachers in a full-time Brazilian school.

**Methods:** This study was a participatory action research project, with the intent to develop a LC with PE teachers as a CPD strategy. The participants included five PE teachers, a facilitator, and a critical friend. Data collection included nine months of weekly observations (35), weekly collaborative teachers’ meetings (21), teachers’ interviews (10), social media records (28), and weekly meetings with the critical friend (21). Data analysis was inductive and ongoing using constant comparison methods.

**Results:** Two aspects represent the findings. First, the LC supported teachers by empowering them. This empowerment was represented by: (1) teachers building their own practice; (2) supporting each other; and (3) having a democratic leader. Second, an organic, ongoing, slow, and dynamic process was important to the development of empowerment: (1) initially essential teachers’ needs were addressed; (2) autonomous decisions impacting PE’s purpose and structure were pursued; and (3) the voice of PE teachers was made present in the larger school context and in school political decisions.

**Conclusion and applications:** Although the teachers existed in difficult school environment, they developed as an independent and autonomous community. This enabled them to survive and empowered them to persevere. Through the LC, they acted collectively to defend themselves against increasing marginalization and to protect students’ rights for quality PE. Their empowerment led to their independence (Dierking & Fox, 2012).

## Pedagogical models - an ideal of versatility in Physical Education

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Friday, 21st June - 09:51: (Nexus 242) - Oral Paper

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*Mr. Esben Stilund Volshøj (Teacher Education, VIA University College)*

Today versatility is a widespread ideal for physical education in school (Annerstedt, 2008; Kirk, 2010). As a result, the approach to physical education has been dominated by many introductory activities also known as a ‘multi-activity curriculum model’ (Ibid.). An alternative to the idea of versatility in a content-oriented perspective could be versatility in pedagogical models for physical education (Casey, 2014; Kirk, 2010; Metzler, 2005). A pedagogical model can highlight how distinctive learning outcomes might best be achieved through their alignment with teaching approach and content (Kirk, 2010). By using different pedagogical models, PE can meet various approaches and outcomes (Ibid.). However, the use of different pedagogical models might not automatically overcome the versatile ideal for physical education.

The purpose of this study is to examine how we can understand the concept of versatility for pedagogical models in physical education. The project is a literature study that first seeks to understand the ideal and practice of versatility for physical education through an inductive qualitative analysis of official management documents and evaluation reports on physical education in DK (Thomas, 2006). Second, through an inductive qualitative analysis of existing pedagogical models, the project seeks to create a definition of pedagogical models for physical education and to create a categorization of these after still unknown parameters (Ibid.).

The presentation will introduce temporary understandings of versatility within pedagogical models in physical education and will lead to a discussion of how we can understand versatility for physical education.

By focusing on how physical education didactically and pedagogically is conducted, it might be possible to open up for a broader understanding of versatility in physical education.

### References

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# **Symposium 6**

## Equity and Diversity in HPE Part II: The role of curriculum and teaching

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Friday, 21st June - 11:00: (Nexus 239) - Symposium

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*Mr. Dillon Landi (Towson University), Dr. Sara Flory (University of South Florida), Dr. Jennifer Walton-Fisette (Kent State), Dr. Sue Sutherland (The Ohio State University), Mr. Karl Jansson (Örebro University, Sweden), Dr. Louise McCuaig (University of Queensland), Prof. Elke Grimmer-Seidensticker (TU Dortmund University), Dr. Aiko Möhwald (TU Dortmund University), Prof. Lisette Burrows (The University of Waikato), Dr. Katie Fitzpatrick (University of Auckland)*

**Co-chairs:** Dillon Landi & Sara Flory

**Discussant:** Associate Professor Katie Fitzpatrick (University of Auckland)

There is an emerging trend in research to explore socially just, transformative, and critical pedagogies in health and physical education (HPE) (e.g., Fitzpatrick, 2019). With few exceptions (e.g., Fitzpatrick, 2013), much of this research has focused on tertiary and PETE milieus (Ovens et al., 2018; Philpot, 2017; Walton-Fisette et al., 2018). In this session, we examine factors that influence the implementation of equitable and socially just pedagogies in K-12 settings. Furthermore, we also examine the potential a/effects produced when such pedagogies are employed. Thus, our session objectives are:

1. Examine factors (curricular, community, etc.) that augment and/or mitigate equitable/ socially just pedagogies in HPE.
2. Explore the pedagogical a/effects produced in classrooms and communities related to culture, diversity, and equity.

### Overview

The papers in this symposium provide international examples of empirical inquiries on curricular and pedagogical practices in HPE. The symposium highlights tensions around the potential (and pitfalls) of socially just/ equitable pedagogies. In so doing, the papers address the a/effects of curriculum and pedagogy on students, HPE classes, and communities more broadly. The first paper is a discursive analysis of U.S. curricular documents that examine (non-)alignment to socially just and equitable goals of education. The second paper explores the tensions (and possibilities) produced at the intersection of religion and PE in Sweden. The third paper is an intervention that documents the effects of implementing an intercultural learning program on social cohesion and student attitudes in Germany. The fourth paper considers the effects of teaching nutrition in relation to familial and cultural values in Aotearoa New Zealand.

Significance:

This symposium adds to emerging research on socially just/ equitable practices in HPE (Fitzpatrick, 2018). In so doing, the symposium explores factors influencing such practices and their concomitant effects.

**Paper 1:** Time to SHAPE up: Developing policies, standards and practices that are socially just

**Authors:** Jennifer Walton-Fisette & Sue Sutherland

**Abstract:** For years, a goal of PE was to develop a physically educated person. In the U.S. context, the idea of a physically educated individual has been reframed to focus on students becoming emotionally and physically literate. Across the *Initial Physical Education Teacher Education Standards* and the *National Standards and Grade-Level Outcomes for K-12 Physical Education*, an emphasis is placed on an explicit, public curriculum. A component of the

Initial PETE Standards is for beginning teachers to engage in culturally competent behavior and demonstrate an ability to plan for diverse learners, particularly related to (dis)ability. Similarly, in the K-12 standards focused on personal and social responsibility, students are expected to demonstrate acceptance of differences when working with others, once again, primarily referencing (dis)ability. Although progress has been made in identifying and addressing diverse learning needs, social justice aims are not an explicit part of current standards for beginning teachers or K-12 students in the U.S., placing us behind other countries across the world. We argue SHAPE America policies and standards need to be challenged and revised to become more equitable and socially just to meet the needs of all students, both in tertiary and K-12 levels.

**Paper 2:**Bodies, souls and healthy living: What, if anything, does religion have to offer PE?

**Authors:** Karl Jansson & Louise McCuaig

**Abstract:**To date, the field of Health, Sport and Physical Education (HSPE) has had a relatively ambiguous relationship with religion and religious young people. Research exploring the intersections between HSPE and religion has tended to focus on religion as a barrier to, or challenge for, HSPE. This paper offers an alternative position. In so doing, the authors explore the opportunities and potentialities of religious perspectives and religious young people's experiences for HSPE. Undertaking ethnographic work in Swedish schools, the first author generated data with religious youth that captured their experiences and reflections of school PE. Drawing on this empirical data and employing Foucault's (1990) ethical fourfold as an analytic tool, the authors will illustrate alliances, disparities, and opportunities between religious and PE ethical practices and principles of healthy living. In conclusion, we argue that these alignments and disparities open up spaces for students and teachers alike to explore and critique the histories and diverse purposes of contemporary healthy living technologies. This work can stimulate interrogations of broader issues that embrace diverse perspectives on bodies, souls and the meaningfulness of healthy living.

**Paper 3:**Enhancing social cohesion in PE classes within an intercultural learning program

**Authors:**Elke Grimminger-Seidensticker & Aiko Möhwald

**Abstract:**Although there is little empirical evidence, sport and physical education (PE) are often considered fields that can enhance social cohesion in heterogeneous groups. Using a quasi-experimental intervention study with children (10 to 12 years old), we evaluated the development of attitudes towards cultural diversity as well as social cohesion. The intervention group ( $N = 69$ ) followed a standardized program, whereas the control group ( $N = 156$ ) were taught in a regular manner. The results show that on one hand, the children in the intervention group developed significantly stronger assimilation and segregation attitudes in comparison to the children of the control groups ( $F(1, 208) = 5.04, p = .007; \eta^2 = 0.046$ ). On the other hand, the social cohesion improved from pre to post in the intervention group ( $t(df: 68) = -3.29, p = .002; d = 0.40$ ) and rivalry in the intervention group decreased in comparison to the control groups ( $F(1, 208) = 4.98, p = .008; \eta^2 = 0.046$ ). Finally, the results might be seen as a reinforcement of the "we-against the others-effect," and leads to a critical discussion of the implementation of social justice programs in PE.

**Paper 4:**Fault lines: Cracking the school-home divide in health education

**Author:**Lisette Burrows

**Abstract:**Considerable monetary and people resources are being devoted to programs that position children as key change agents for family nutrition practices. Yet, little is known about how these initiatives work and/or for whom. In this New Zealand study, photographic and digital images of family food rituals and routines, interviews with parents and children, and analyses of formal and informal curriculum documentation were used to explore how, and if school-based health knowledge shapes family dynamics. No predictable, nor linear mode of transmission of health messages between school and the home was found. Rather, knowledge received in school was made sense of (or not) in ways that fit with existing parameters of family life. Different meanings for food, different emotions linked to food, and different ways of eating were featured in diverse family contexts. Where school-

based food knowledge departed substantially from that celebrated in home environments, confusion, frustration and sometimes anger, were reported by family members. In essence, the complexities of family life, confound the intention of some school-based health pedagogies to persuade to a particular point of view and to incite change.

# **Innovations in PETE**



## Teaching and learning following a common content knowledge professional development workshop.

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Friday, 21st June - 11:00: (Nexus 237) - Oral Paper

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*Mr. Tom Madou (KU Leuven), Dr. Phillip Ward (The Ohio State University), Prof. Fien Depaepe (KU Leuven), Prof. Peter Iserbyt (KU Leuven)*

### BACKGROUND AND PURPOSE

Little is known about how professional development workshops should be conducted and what knowledge in-service teachers need that will impact their behavior and consequently student learning. The purpose of this study was to investigate the efficacy of a common content knowledge workshop in Basic Life Support (BLS) on (1) the behavior and content development of teachers, and (2) the effects on student learning.

### METHODS

Three high school PE teachers followed a standardized professional development workshop combining online instruction with face-to-face, instructor-led hands-on training. The workshop focused on common content knowledge of BLS which comprises knowledge of the procedure (i.e., sequence of steps) and knowledge of criteria for skillful performance. Following the workshop all teachers each taught at least two classes a one-hour BLS lesson (8 classes,  $n=104$  students, average age: 16.7). Lessons were videotaped and teacher behavior and content development in terms of task selection was coded by two trained observers. Student performance was assessed one week following training.

### RESULTS

Teacher behavior differed largely between teachers with time involving students practicing BLS ranging 28-73% of total class time. Teachers provided mainly informing tasks. One teacher provided refining tasks while no teacher provided extending or applying tasks. Accountability focused mainly around the quality of performance although the number of teacher-student interactions varied greatly between teachers (8-63 per lesson). Average BLS performance per class ranged 47%-72% and correlated positively ( $r=.8$ ,  $p<.05$ ) with time spent practicing BLS and the number of teacher-student interactions ( $r=.81$ ,  $p<.05$ ).

### CONCLUSIONS AND IMPLICATIONS

Professional development focusing on common content knowledge had a differentiated impact on individual teacher behavior and did not prepare teachers well for student learning. Future professional development research should incorporate knowledge on how to teach (i.e., content development, lesson organization, and student-teacher interactions) to improve student learning.

# Aspects of health promotion in the context of praxeological sport didactics – teaching models for innovative PE teacher education

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Friday, 21st June - 11:21: (Nexus 237) - Oral Paper

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*Ms. Wiebke Langer (Osnabrück University)*

## Introduction

Today, in subject-specific didactic discourse and in curricular recommendations for all school types, reference is increasingly made to the specific potential of physical education for contributing to health promotion at school. There is also consensus that for sports instructors to include health topics in PE lessons they need the relevant professional skills in health education, sport education and didactics. They can acquire the appropriate foundations for these skills in a scientific but also practice-oriented PE teacher education (Sygusch, Brandl-Bredenbeck, Jäger & Lutz, 2017).

Within the discipline, however, theoretically based or empirically proven benefits of health promotion are often equated with the promotion of fitness, resulting in functional, physically centred lessons in prevention (Elflein & Huh, 2015).

As the paper shall argue, this widely used approach only partially fulfils the requirements of a modern, comprehensive, guiding pedagogical principle of health promotion.

Salutogenetically based insights emphasize the significance of individual personal resources, and this must also be reflected in practical application in lessons and, consequently, in professional didactic training for PE teachers.

## Method and Discussion

With this object in mind, the present paper explores from a didactic perspective how to reflect on and prepare a topic based on an understanding of health that comprises both physical and psychosocial aspects and is accessible to all educational levels. At the same time, the paper demonstrates how health promotion, thus understood, can be implemented in professional teacher education. Within the conceptual framework for a praxeological approach to innovative sport didactics (Elflein & Langer, 2016; Elflein, Langer, Huh & Kamp, 2015), teaching models serve as a means for practical reflection on PE and the preparation of PE topics, and function as a core element for acquiring didactic competence. Beyond reflecting on the metatheoretical and structural foundations and functions of teaching models, the paper illustrates the practical development of innovative health-promoting teaching models on the basis of a seminar concept for higher education. It discusses a classroom experiment based on that concept and drawn up by students on the subject of outdoor sports and health, taking the results of an evaluation into account.

Overall, my interest in sport-related didactics focuses on having a positive influence or impact on the field of reference, and on the initiation of qualitative, progressive change in the context of subject-related health promotion.

## Key words

Praxeological sport education, subject-related health promotion, PE teacher education

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## Understanding Career Choice among Kinesiology Undergraduate Students

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Friday, 21st June - 11:42: (Nexus 237) - Oral Paper

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*Mr. Daniel Gawrisch (The University of Illinois at Urbana-Champaign), Dr. K. Andrew R. Richards (The University of Illinois at Urbana-Champaign), Mrs. Victoria Ivy (University of West Georgia)*

Physical education teacher education programs are experiencing declining enrollments in universities across the country (Bulger, Jones, Taliaferro, & Wayda, 2015). At the same time, enrollments in other sub-disciplines within the field of Kinesiology are on the rise. **Purpose:**Through the lens of occupational socialization theory, the purpose of this study is to understand why students who enroll within a kinesiology sub-discipline choose a field of study other than physical education (PE). **Methods:**Participants (n = 74) were selected from a course taken within their kinesiology major from a Midwestern university during the Fall 2018 semester. All participants completed an autobiographical essay in which they discussed their college major of choice and a survey regarding common facilitators of recruitment into PE according to the literature (Richards & Templin, 2019). In addition, semi-structured interviews (n = 24) were conducted. **Results:**Themes emerged from the autobiographical essays and interviews relative to kinesiology majors selecting careers other than PE, which include (a) lack of active recruitment into PE, (b) negative perceptions of PE developed during K-12 experiences, and (c) sports injuries sustained that provided an inside view of athletic training/physical therapy careers. On the survey, the highest rated common facilitators toward recruitment were health and fitness, family, and sports experience. The lowest rated facilitators were K-12 PE experience, school counselors, and desire to coach. **Conclusions:**This research could help the field of physical education better understand and respond to lowering enrollment rates, and provide active recruitment strategies to increase PETE enrollment.

# **Pedagogy for Marginalized and High Risk Students**

## Development and Optimization of a Professional Development Program for Teaching Life Skills in Secondary PE Classes

Friday, 21st June - 11:00: (Nexus 275) - Oral Paper

*Dr. Okseon Lee (Seoul National University), Dr. Euichang Choi (Seoul National University), Mr. Hyukjun Son (Seoul National University), Dr. Hyunsoo Jung (Seoul National University), Dr. Kihee Jo (Doksan Elementary School)*

The recent changes in PE and school sports policies in Korea require PE teachers' heightened awareness in developing students' core competences that can be transferred beyond school PE settings. As a way to develop core competences, PE teachers are required to seamlessly integrate life skills into sport skills. However, many PE teachers have difficulties in teaching life skills due to lack of appropriate pedagogical strategies and sound theoretical background. Therefore the purpose of this study was to develop and optimize a continuing professional development (CPD) program for secondary teachers to facilitate their teaching life skills in PE classes through iterative processes of development, provision, evaluation, and modification. First, online questionnaires ( $n = 251$ ) and semi-structured interviews ( $n = 20$ ) with secondary PE teachers have been conducted for teacher needs assessment. Second, an initial CPD program was developed by considering principles of effective CPD (O'Sullivan & Deglau, 2006), results of needs analysis, and Life Development Intervention / Basic Needs Theory life skills model (adapted from Hodge et al., 2012). The goal of the program was to provide teachers with theoretical and practical knowledge and skills for teaching management, expression, training, and competition-related life skills which were emphasized by Korean national curriculum of PE. The program was composed of: (a) online-based pre-training, (b) intensive workshop, (c) school observations, and (d) monthly debriefing. The program was piloted with 5 teachers and quantitative and qualitative feedback was obtained. Then, the program was adjusted and piloted again with 5 another group of teachers, and feedback was obtained. Based on the feedback, the program was adjusted again and the program was reviewed by 5 experts for relevance and practicality. Fifteen people participated in the study and the data were collected from open-ended survey and in-depth interviews which were analyzed inductively. The findings revealed that there were changes in content relevance (3.83/4.59) and structural appropriateness (3.9/4.55) between pilot tests 1 and 2. In addition, teachers valued active and interactive learning environment, balancing content and pedagogy, theory and practice, and case-based discussion, and hands on experience in CPD. In addition, teachers emphasized that the program should be delivered in a needs-supportive way so that teachers become a role model in establishing needs-supportive teaching environment to teach life skills. Based on the findings of this study, discussions were made regarding (a) the role of life skills as a means of implementing a competency-based national curriculum, (b) teacher as active agents in the program development and optimization process, and (c) the strategy for teachers to participate in active learning. This study provided implications for the design of future PE-CPD programs by providing specific information about the development and optimization process of programs that reflect theoretical analysis and teachers' needs.

## Increased Exposure to Worldwide Physical Education: Combating Marginalization

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Friday, 21st June - 11:21: (Nexus 275) - Oral Paper

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*Dr. Ulana Lysniak (Bronx Community College, City University of New York), Dr. Tess Armstrong (Grand Valley State University), Dr. Ingrid Johnson (Grand Valley State University), Dr. Eve Bernstein (Queens College, City University of New York)*

**Background and Purpose:** Faculty have many responsibilities in higher education, such as administration, service, accreditation, advisement, and teaching. These responsibilities can take focus away from scholarship. As administrative and teaching duties grow in importance, scholarship responsibilities that are meant to expand the knowledge base and make connections across sub-disciplines (Woods, Goc Karp, & Feltz, 2002) can become strained, and faculty can feel isolated in their responsibilities (Goc-Karp & Williamson, 1993). The physical education department and its faculty can often be marginalized. In this theoretical view, marginalization in physical education programs, and the effects of that marginalization (defined as removing from the mainstream), have been explored (Azzarito, Macdonald, Dagkas, & Fiset, 2017; Azzarito & Solomon, 2005; Carson, Hemphill, Richards, 2016; Laureano, Konukman, Gümüşdağ, Erdoğan, Yu, & Çekin, 2014). One way to combat this marginalization are international conferences. They are an important way for PETE faculty to share their research interests and ideas. Attending international conferences can augment a US-centric pedagogical perspective that can be incorporated into making professional connections to increase research opportunities that ultimately will affect teaching (Lawson, 1991).

**Summary:** This presentation will introduce the opportunities for PETE faculty to engage in more global professional organizations. This engagement may decrease potential marginalization by expanding a global instructional foundation for an increasingly diverse student population, by widening the horizon for more professional connections, and supporting culturally responsive teaching, all of which can inform research. As these paradigms are formed, using a greater global perspective, new research questions will be generated. Attending international conferences can ultimately influence pedagogy in PETE programs as international research partnerships are developed. As faculty utilize student-centered and culturally-mediated research, influenced by an international perspective, a reshaping of instruction to achieve a broader globalized view could result.

**Conference Theme:** Our presentation addresses the conference theme of *Professional Preparation for Health and Physical Education, Sport, and Physical Activity*. International conferences can prepare physical education faculty for new avenues in research. This research could influence faculty to develop and deliver instruction in a variety of settings and for diverse populations.

**Conclusion and Implications:** Our session will explore the growth of international organizations in physical education, the importance of making contacts globally, and the presenters' experience with a variety of these organizations.

## Trauma-informed Practices for Physical Education Teachers

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Friday, 21st June - 11:42: (Nexus 275) - Oral Paper

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*Dr. John Mccarthy (Boston University), Dr. Val Altieri, Jr. (Boston University)*

Childhood trauma exposures are common which can result in many long term impacts from such exposure (Copeland et al., 2018). Martinek, Hardiman, and Anderson-Butcher (2006) suggested ways to meet the needs of traumatized children in physical education. Since then, spurred by continual events such as widely publicized mass school shootings, natural disasters, racially-related violence, and gang-related violence the push for school communities and personnel to be trauma-informed has gained momentum. However, despite the growing movement towards preparing school personnel to be trauma-informed there is a gap in how school-wide initiatives could be implemented not just in the classroom but also in a physical education setting. Perry and Daniels (2016) noted, “Current teacher pre-service training programs do not consistently address the social–emotional health of students or trauma-informed instruction. Teachers are left to learn on the job how to approach challenging behaviors and are not always cognizant of how trauma may be impacting students” (p. 204).

This presentation will address the professional preparation of PE teachers by focusing on trauma- informed practice for physical education. Using National Child Traumatic Stress Network NCTSN (2017) guidelines for trauma-informed schools, suggestions will be made for the PE setting. Primarily this presentation will attempt to discern what may be similar to a classroom setting and what may need to be taken into consideration that is different in physical education when working with youth who have experienced trauma. In addition, the presentation will make recommendations for further research and share basic ways to prepare PE teachers, physical activity leaders, and coaches to implement trauma-informed approaches and create trauma-sensitive spaces.



# **Addressing Challenges of PE Teachers**

## Factors influencing Chinese Physical Education Teacher Educators' professional identity

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Friday, 21st June - 11:00: (Nexus 154) - Oral Paper

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*Ms. Yueying Gong (University of Limerick), Prof. Ann MacPhail (University of Limerick), Dr. Ann-Marie Young (University of Limerick)*

**Background and purpose:** Chinese university-based physical education teacher educators (PETEds) perform complex roles. They are commonly referred to as 'teachers' or 'lectures' than 'teacher educators'. Teacher educators' professional identity is still a new research field in China (Li, 2017) and different activities influence teacher educators' professional identity. The exploration of professional identity can promote teacher educators' understanding and improvement of teacher education (Czerniawski, 2018). The purpose of this study is to investigate what influences Chinese university-based PETEds' professional identity.

**Methods:** Semi-structured interviews were conducted in Chinese with 15 Chinese university-based PETEds across 8 provinces. The interview questions were mapped to PETEds' background, self-support activities and community-support activities (Izadinia, 2014). Interviews lasted between 30 and 70 minutes and were transcribed. Grounded theory method was used to analyze data. The interview data was translated into English before categories were identified by authors.

**Results:** The findings are presented in five categories: (i) teaching context, (ii) previous experience, (iii) formal learning activities with colleagues, (iv) interaction with school physical education teachers, and (v) engage in research.

**Conclusion and implication:** The majority of PETEds viewed themselves more as a 'teacher' than 'teacher educator'. Learning together with department colleagues significantly influenced their professional identity, particularly when there were very few formal learning activities specific to PETEds. PETEds' professional identity appears inextricably linked to their belief that an effective PETEd is someone who educates pre-service PE teachers to become PE teachers. Future research could explore the extent to which pre-service PE teachers and beginning PE teachers position PETEds' professional identity.

## **An exploration of difficulties and challenges of Physical Education in early years from the perspective of teachers.**

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Friday, 21st June - 11:21: (Nexus 154) - Oral Paper

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*Ms. Cristina Honrubia (University of Castilla La Mancha), Dr. Pedro Gil Madrona (University of Castilla La Mancha)*

It is well known the importance of Physical Education (PE) in early years owing to the fact that it promotes the whole development of the child (motor, cognitive, social and emotional). Moreover, it is crucial in posterior years. The role of the teacher is essential in this aspect. However, little attention has been paid to exploring professional development in relation to PE in this stage. For this reason our objective is to know the difficulties and challenges that teacher face.

A qualitative design was adopted, involving 12 interviews with teachers who work in early Childhood Education. Furthermore, two focus groups were developed, each one composed of 6 teachers. Interview questions focused on aspects such as initial and lifelong learning, contextual perspective, and personal perspective, implications of curriculum and future challenges in PE. Data were analyzed taking into account the categories established.

Initial findings indicate that one of the main difficulties is the lack of knowledge that they received in initial training. Moreover, they highlight the lack of support of families to develop their task. As well, teachers mention that educational institutions such as universities are not involved in improving the teaching-learning process. On the other hand, changes in the curriculum are considered essential to give PE a relevant place in this stage.

Findings demonstrate the importance of collaboration of families and different institutions to overcome difficulties that teachers face. We conclude by recommending an intervention where teacher work along with experts to provide them with adequate tools to improve the teaching-learning process.

## Promotion of Sport-related Health Competence in English-Language Physical Education

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Friday, 21st June - 11:42: (Nexus 154) - Poster Presentation

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Dr. Clemens Töpfer (Friedrich-Alexander-Universität Erlangen-Nuremberg), Ms. Alessia Prest (Friedrich-Alexander-Universität Erlangen-Nuremberg)

### Background

There is a consensus that Physical Education (PE) should contribute to public health in terms of empowering children and adolescents to become and remain physically active for life (McEvoy et al., 2015). In this perspective, the goal of PE is not primarily to produce direct health outcomes (e.g. fitness), but it aims at developing students' competences (Töpfer, 2017). The purpose of this explorative intervention study was to evaluate practical methods to promote students' Sport-related Health Competence (SrHC).

### Methods

**Intervention:** A six-weeks intervention was carried out with 17 students (aged 15-17) at an International School in Germany. The developed lessons followed the theoretical model of SrHC while focusing on subjective health aspects. **Evaluation:** All lessons were video recorded and assessed by an additional PE teacher using a questionnaire. To evaluate students' acceptance and knowledge, a class-based feedback and a group interview were implemented. The evaluation was based on qualitative content analysis.

### Results

The students enjoyed the variety and the content of the activities including PA and various reflection phases that aimed to facilitate students' cognitive activation. The interview results indicate students' differentiated understanding of SrHC. However, a well-balanced relation between movement time and cognitive phases seem to be an important key factor for successful PE lessons.

### Conclusion

At first glimpse, the practical methods implemented within the intervention show a positive impact on the students. However, as a consequence of the qualitative design, limitations are present. Further research need to involve a quantitative pre-post-design in order to prove the program's effectiveness properly.

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# **After School Physical Activity Programs**

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## Off-hours facility use in public high schools: A party where no one shows up?

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Friday, 21st June - 11:00: (Nexus 155) - Oral Paper

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*Prof. Hans van der Mars (Arizona State University), Ms. Shannon Mulhearn (Arizona State University), Mr. Hyeonhyo Yu (Arizona State University), Ms. Janelle Griffo (Arizona State University), Dr. Pamela Kulinna (Arizona State University)*

**Background and purpose:** From a behavioral-ecological perspective, high school campuses are a potential community-based setting for supporting health-enhancing physical activity (PA). Little is known about the extent to which high school PA areas are used outside of regular school hours (i.e., later afternoon/evening, and weekends). Therefore, this study was conducted to assess high school PA area use during non-school hours. **Methods:** Observation (n=3747) were made over a one-year period on 19 public high school campuses in a U.S. metropolitan area, on five randomly selected weekdays and one weekend day. Trained observers utilized the System for Observing Play and Recreation in Communities (SOPARC), to assess environmental conditions and PA levels of persons present. Inter-Observer Agreement (IOA) calculations and Intra-class Correlations Coefficients (ICC) across SOPARC categories ranged from 97.94 to 100.00% (IOA), and 99.00% to 100.00% (ICC), respectively. **Results:** Schools averaged 16 dedicated PA areas (range 8-20). Indoor and outdoor PA areas were generally lit (i.e., natural, or artificial) (59.04%), accessible (52.87%), and usable (45.57%). However, few were equipped (9.15%), supervised (8.03%), or organized (7.50%). Activities were observed in only 14% of all activity area scans. Of those, about 50% were formal school teams or community club practices or games. The remaining activities were recreational in nature. When used, persons were sedentary, walking, or vigorous 61.1%, 22.98%, and 15.90% of the time, respectively. Males present in the PA areas engaged in more MVPA (23.9%) than females (14.88%). **Conclusion and implications:** The potential contribution that publicly-funded high schools can make to increasing PA levels of community members during non-school hours of high school campuses remains unrealized. Despite being accessible, and usable much of the time, most PA areas were unused. Area use could be improved through greater collaboration between schools and community organizations.

## Health, affects, and ethnicity in an urban after-school program

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Friday, 21st June - 11:21: (Nexus 155) - Oral Paper

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*Ms. Carrie Safron (Teachers College Columbia University)*

**Background:** Youth learn about health and fitness from multiple sites outside of physical education (PE). This may include print media (Oliver, 2001), after-school clubs (Garn et al., 2014), commercial gyms (Lavery & Wright, 2010), and social media (Goodyear et al., 2018). Thus, it is important to explore ways in which knowledge is exchanged and/or (re-)produced in informal settings. As such, the purpose of this paper is to explore how health and fitness knowledge(s) were exchanged in/through a pedagogical encounter (Tinning, 2010), and the potential *affects* (Fox & Alldred, 2017) of such an encounter.

**Methods:** Data are drawn from an 18-month visual ethnography (Pink, 2013), which took place in a community-based after-school program in New York City. Using the theoretical concepts pedagogical work (Tinning, 2010), affect (Seigworth & Gregg, 2009), and ‘wonder’ in qualitative research (MacLure, 2013), the data generated and analyzed for this paper focused on a pedagogical encounter that ‘glowed’ (MacLure, 2013) amongst four Black and Latinx youth and two fitness professionals. Data included an hour and 45-minute encounter with four youth and two fitness professionals, subsequent group discussions, and one-on-one interviews with each participant. Data analysis used MacLure’s (2013) notion of ‘coding’ and ‘glows’ to produce themes.

**Results:** Three themes emerged: (1) Pedagogical boundaries blurred in the encounter as youth took initiative in unexpected ways; (2) The encounter produced affective moments (laughter, tears, etc.); and (3) These moments created lasting affects as participants began to re-think health and fitness knowledge(s).

**Implications:** This paper shows the potential of learning through multiple pedagogical sites, specifically among different players in an after-school setting. In bringing together youth and fitness professionals, two groups of individuals generated unexpected knowledge and were affected by this interaction. The encounter demonstrated the possibilities of exploring the role of pedagogy and learning outside formal schooling milieus.

## Latina elementary school girls' experiences in an urban after-school physical education and literacy program.

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Friday, 21st June - 11:42: (Nexus 155) - Oral Paper

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*Dr. Risto Marttinen (George Mason University), Dr. Mara Simon (Springfield College), Dr. Sharon Phillips (Hofstra University),  
Dr. Ray N Fredrick III (Queens College City University of New York)*

**Purpose:** This research aimed to understand the experiences of Latina, elementary school girls during a year-long implementation of the REACH after-school curriculum. The research questions were: (1) What effect does the REACH program have on the girls' participation in physical activity (PA)? (2) Where and how are girls able to be physically active outside of the REACH program?

**Method:** During the 2016-2017 school year, we implemented an after-school physical education (PE) and literacy program for 5<sup>th</sup> and 6<sup>th</sup> grade girls ( $N=22$  girls) in a low-income community. This qualitative case study was completed across 30 weeks through twice-weekly, 2-hour-long sessions. University students (coaches  $N=4$ ) taught all sessions. Data were triangulated through ten girls' interviews, student journals, coaches' journals, researcher journals, and field notes. In total, 686 pages of data were analyzed using constant comparison. Two researchers independently coded the data and a peer reviewer then separately checked the data.

**Results:** Two themes emerged from the analysis. Theme 1: Girls are not inactive but instead found meaningful physical activities outside of school through participation with family in community spaces, thus allowing them to successfully navigating gender norms within their school and home contexts. Theme 2: The role of the coach was vital in providing a strong role model and fostering connections with the girls, as individuals who were college students (which was a goal for many girls), and as people who were physically active.

**Implications:** Participants explained how they were physically active in settings where they felt comfortable, such as with their families, and where they found meaning, which was often not in PE. Thus, practitioners should focus on developing experiences for Latina girls that are both engaging and culturally relevant to help them learn how to make more informed choices about their physically activity within their chosen spaces of PA.



# **Working Towards Quality PE Programs**

## How can Physical Literacy Impact the teaching of Quality Physical Education?

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Friday, 21st June - 11:00: (Nexus 156) - Oral Paper

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*Dr. David Chorney (University of Alberta)*

Background: Physical literacy is the development of fundamental movement skills that permit a child to move with confidence, competence, and knowledge and to be able to participate in a variety of physical activities for life (Whitehead, 2016). This session will provide an overview of how a quality physical education program could be conceptualized and implemented by using a physical literacy approach. Attendees will learn how physical literacy can positively impact and influence their teaching and planning and ultimately their pedagogy as it relates to the instruction of physical education.

Summary of the main points: An overview of what physical literacy means and how it relates to teaching physical education will be highlighted. How physical literacy can be used as a foundational construct in the development of a quality PE program in terms of long term planning, unit planning, and lesson development as well as assessment of students' skills will be shared.

This presentation directly addresses the conference themes of 1)Physical Education and Physical Literacy; 2) Professional preparation for health and physical education.

Implications of this presentation: I believe 3 key learning objectives can be taken away from this presentation. 1) participants will gain an understanding of how their physical education program can be enhanced by better understanding the concept of physical literacy. 2) Participants will be required to reflect on their planning and teaching and assessment practices and will be asked to contemplate how physical literacy can be introduced into their school physical education program or their physical education teacher education program. 3) Current literature and research will be introduced as to how physical literacy is being implemented into new provincial PE curricula across Canada as well as how Physical and Health Education Canada (PHE) endorses physical literacy and has created teaching tools that are free and accessible for everyone.

## Learning about meaningful physical education: Explorations of pedagogies for teacher educators

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Friday, 21st June - 11:21: (Nexus 156) - Oral Paper

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*Dr. Douglas Gleddie (University of Alberta), Dr. Maura Coulter (Dublin City University), Dr. Tim Fletcher (Brock University), Dr. Deirdre Nichroinin (Mary Immaculate College), Dr. Richard Bowles (Mary Immaculate College)*

Meaningful physical education (MPE) (Beni, Fletcher & Ní Chróinín, 2017) is emerging as a pedagogical approach for quality physical education (Ní Chróinín, Fletcher & O’Sullivan, 2015, 2017). We used collaborative self-study within an international community of practice (CoP) (Patton & Parker, 2017) to enable physical education teacher educators (PETEs) to explore how they helped their pre-service teachers (PSTs) to learn about MPE using a variety of strategies including learning about meaningful physical education (LAMPE) pedagogies. Martin and Dismuke (2015, p. 5) suggest that collaboration enables “individuals to work across boundaries of their own knowledge, skills, and dispositions in dealing with the complexities and challenges of teaching”. Three PETEs in two countries participated in the self-study with two additional PETEs acting as critical friends. Each of the three main participants enacted LAMPE pedagogies in one course they taught to primary generalist PSTs. Data gathered included reflective journal entries, recorded Skype meetings and a final meta-reflection. Each reflection required PETEs to respond to prompts such as: “What worked and what didn’t to create supportive and collaborative PST learning environments.” The critical friend responded to the question and pushed the conversation further with the PETE. Key themes included: creating meaningful learning environments for PETE (peer support, differing contexts, role of critical friends, reflexivity); explicitly prioritizing the role of meaningfulness in the teaching environment for PSTs (e.g., using the features of MPE to support a shared language; practice being guided by principles of MPE) and the varied impact of teaching for meaning in PETE (value of MPE, change, PST efficacy, PETE effects). Findings illustrated the value of teacher educators learning about and implementing pedagogical innovation with collegial support; opportunities to apply learning in local contexts and; supporting a diverse array of pre-service teacher needs. The findings also provide important direction on how teacher educators can be supported to take up innovations in their practices.

# **Effective Teaching Strategies in PE**

## Effects of Indoor Wall Climbing on Barriers Self-Efficacy within a Physical Education and Sport Intervention in Germany

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Friday, 21st June - 11:00: (Nexus 157) - Oral Paper

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*Dr. Mirko Krüger (University of Duisburg-Essen), Mrs. Christiane Seng (University of Osnabrück)*

The current study examined the effects of an indoor wall climbing intervention within the context of a regular Physical Education and Sport (PES) program on barriers self-efficacy (SE) of adolescents in Germany. The study used a field experiment with a control group. 78 8<sup>th</sup>-graders were included (age:  $14.41 \pm 0.71$  years) with 37 randomly assigned for the intervention group and 41 for the control group. The intervention group participated in two half-day indoor wall climbing excursions (duration: 180 minutes each) based on SE building strategies. The wait-list control group did not receive any treatment before post-test. Both groups were pre-and post-tested in barriers SE of indoor wall climbing and belaying. After the intervention, significant improvements were found in the experimental group on SE of belaying ( $F_{(1, 76)} = 22.95, p = 0.000, \eta^2_p = 0.23$ ). To our knowledge, this study provides the first evidence from a German PES field experiment on increasing an important SE facet related to indoor wall climbing among 8<sup>th</sup>-graders. Therefore, the program may be recommended as one short-term method to achieve one important educational goal within ordinary PES programs in Germany and to contribute to the personal development of the students. Nevertheless, more research within the context of PES is needed to analyze the most effective and exercise-related techniques for increasing SE of climbing and belaying in the short and long term.

# Investigating the Relationship Between Teaching Quality and Student Achievement in Secondary Physical Education

Friday, 21st June - 11:21: (Nexus 157) - Oral Paper

*Prof. Niki Tsangaridou (University of Cyprus), Dr. Ermis Kyriakides (University of Cyprus), Dr. Charalambos Charalambous (University of Cyprus), Prof. Leonidas Kyriakides (University of Cyprus)*

## Background and Purpose

Physical education (PE) is considered a multidimensional subject matter. In several countries, the school PE curriculums include essential skills, knowledge, values, and attitudes that students are expected to develop through their participation in PE. Scholars argue that these goals can only be successfully achieved through quality teaching. Although, research on teaching has recently grown, to our knowledge, there is a scarcity of studies investigating how quality teaching can impact students' physical, cognitive, and affective development. Towards this end, we ask: *Are there any teaching practices that can consistently contribute to more than one learning domain (i.e., psychomotor, cognitive, and affective)?*

## Methods

For the purposes of this study we recruited 21 PE specialist teachers who would teach PE to 8<sup>th</sup>-9<sup>th</sup>-grade students, and then recruiting the students of those teachers (N=702). Student learning in each domain was measured using a pre-/post-performance/written test. Teaching quality was captured through four observations for each teacher, using two different observation systems: a modified version of the *Task Structure System* and the *Dynamic Model of Educational Effectiveness*. The construct validity and the psychometric properties of all the employed instruments were investigated using advanced statistical techniques; reliability of the data was established by carefully selecting and comprehensively training the observers/scorers. Three separate multilevel regression analyses were run to examine which practices significantly contributed across the three learning domains.

## Results

Findings showed that by increasing students appropriate practice trials, teachers can have a significant impact on all domains. Additionally, establishing a supportive environment through teacher-student/student-student interactions, demonstrating the correct skill performance, and engaging students in warm-up activities can significantly contribute to student learning across psychomotor and cognitive domains. Moreover, discussing the importance for which a lesson takes place (i.e., orientation) contributed to cognitive and affective domains.

## Conclusions and Implications

Based on these findings, theoretical frameworks related to PE teaching quality can be enhanced with practices that contribute across two or even three learning domains. Moreover, teacher educators could use such practices in preservice and inservice teacher education programs.

# **Professional Preparation for Sport Leadership**

## Preparing the Next Generation of Leaders for Careers in Sport-Based Positive Youth Development

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Friday, 21st June - 11:21: (Nexus 158) - Oral Paper

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*Dr. Dawn Anderson-Butcher (The Ohio State University), Dr. Meredith Whitley (Adelphi University), Dr. Jennifer McGarry (University of Connecticut)*

Youth today are faced with multiple barriers and challenges that often impede their overall learning and development. Emergent research documents the importance of sport-based positive youth development (PYD) programs for reducing these barriers, as well as for promoting social/life skills and broader health outcomes, especially for socially vulnerable youth (Hermens et al., 2017; Holt et al., 2017; Lubans et al., 2012). Given the value of sport-based PYD, a growing need exists for professionals who are prepared to use sport as a vehicle for social change (Whitley et al., 2017). This presentation highlights three university preparation programs for physical activity leaders, sport coaches and administrators, and youth workers, describing the innovative teaching and learning strategies used to prepare future professionals to develop social and sports skills, civic responsibility, leadership skills, and other well-being outcomes among socially vulnerable youth. Specifically, one university's master's degree program in physical education or sport management and its specialization in sport-based youth development will be overviewed. Highlights will include an innovative Sport-Based Youth Development Fellowship involving part-time work in sport and physical activity organizations in New York City. Additionally, another university's innovative coursework, internship experiences, and fellowship opportunities offered as part of a nationally recognized sports initiative will be highlighted. Specifically, the interdisciplinary undergraduate youth development minor will be shared, as well as the newly designed Undergraduate Research Fellowship program. Finally, the third institution pairs sport management coursework with practical (and paid) experience in a community-based sport, physical activity, and nutrition program. Students are also engaged in regular professional development sessions with their university peers, teachers and school staff, and community leaders. To conclude, shared learning competencies for sport-based PYD professionals will be synthesized, and implications for the design of innovative curriculum and learning experiences for university students interested in careers in sport-based PYD will be drawn.



# **Progressive Pedagogical Approaches**

## **‘I became a teacher that respects the kids’ voices’: Challenges and facilitators pre-service teachers faced in learning an activist approach**

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Friday, 21st June - 11:00: (Nexus 241) - Oral Paper

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*Dr. Carla Luguetti (College of Sport and Exercise Science at Victoria University), Dr. Kimberly Oliver (Department of Kinesiology and Dance, New Mexico State University)*

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**Background and purpose:** Several studies demonstrate the benefits of educating for social justice in physical education teacher education programs (O’Sullivan, 2018; Philpot, 2015; Walton-Fisette & Sutherland, 2018), which supports that pre-service teachers (PSTs) have the capacity to be active agents of change. In working with social justice, PSTs engage in what can be a very personal struggle with their own stereotypes and assumptions about the people they are working with (Oliver et al., 2015). Although the challenges that PSTs faced to learn an activist approach to teaching are described in the literature, there is little research that aims to understand how these challenges progress across time. The aim of this study is to explore the challenges pre-service teachers faced when learning to use an activist approach across time. \

**Methods:** Participatory action research framed this 3-semester study (18 months). Participants included 10 PSTs, 90 youth, and two researchers. Data collected included: (a) collaborative PSTs group meetings; (b) PSTs reflective diaries after each teaching episode; (c) lead researcher observations collected as field notes; (d) PSTs generated artifacts; and (e) PSTs interviews and focus groups. Data analysis involved inductive and constant comparison.

**Results:** Two main challenges were encountered in PSTs’ learning to use an activist approach across time. The first involved the PSTs’ assumptions about what student-centered (SC) pedagogy meant and the challenges of overcoming their misconceptions about teaching and learning. The second challenge involved the PST’s struggles in coming to understand themselves as activist teachers, with dispositions as advocates of social justice.

**Conclusions and implications:** Future studies should continue to explore the challenges and facilitators PSTs face when learning an activist approach aimed at empowering both students and teachers to develop a critically conscious understanding of their relationships with the world through their effort to name and change the world together.

## Impacts of a Professional Development Program on Secondary School Teachers' Life Skills Teaching in Physical Education Classes

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Friday, 21st June - 11:21: (Nexus 241) - Oral Paper

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*Dr. Okseon Lee (Seoul National University), Dr. Euichang Choi (Seoul National University), Mr. Hyukjun Son (Seoul National University), Dr. Hyunsoo Jung (Seoul National University), Dr. Victoria Goodyear (University of Birmingham), Dr. Mark Griffiths (University of Birmingham), Prof. Kathleen Armour (University of Birmingham)*

Continuing professional development (CPD) is a key to teachers' professional growth and improving teaching and student learning outcomes. Despite the importance of CPD, there is still lack of empirical study on how CPD impacts teaching practice and what factors influence its outcomes. The purpose of this study was to examine the impacts of a CPD program on secondary school physical education (PE) teachers' practice of life skills teaching in PE classes. Given that many PE teachers have difficulty in teaching life skills in PE classes, a CPD program called "Project Change Up!" was designed through the processes of (a) needs analysis with 251 PE teachers with on-line survey, (b) pilot testing and adaptation of the program, (c) pilot testing, and (d) expert review. The one-year program included: (a) online-based pre-training modules, (b) 30 hours of intensive workshop, (c) school observations, (d) monthly workshops, and (e) online group communication through mobile instant message chatroom activities. The goal of the program was to provide on-going, sustained, and pedagogical cases-based support to help teachers to integrate life skills into secondary PE classes. Throughout the processes of pre-training, intensive workshop, observation, and monthly workshops, teachers' practice of life skills teaching was examined by adopting the six-level implicit/explicit continuum of life skills development framework (Bean, Kramers, Forneris, & Camire, 2018). Data were collected from 8 secondary PE teachers (4 males, 4 females; Avg. exp=6.25 years) through in-depth interviews (pre-, mid, and post-CPD), 30 hours of class observations, and observations of monthly workshops, and online chatroom exchanges. Findings revealed that teachers' implementation of life skills were commonly started from implicit approach by facilitating positive climate and progressed toward explicit teaching approach with the participation in the CPD program. However, the patterns of progress from implicit to explicit approach were quite different among the teachers such as: (a) progressive improvement (from level 2 to 3, 4, and 5), (b) drastic improvement followed by a critical incident, (c) fluctuation between level 2 and 3, and (d) stagnant practice at level 1(structuring the sport contexts). Teachers who demonstrated gradual progress from implicit to explicit life skill teaching practice have participated actively in CPD program and transformed vague expectations into explicit and specific life skill tasks and provided student-centered learning opportunities. Meanwhile some teachers demonstrated drastic improvement after a long latent period when barriers to professional learning was cleared through critical incidents (e.g., informal networking activities). However, teachers who lacked philosophical adherence to life skills approach and accepted only technical aspects of life skills through CPD fluctuated between level 2 and level 3. Teachers who showed stagnant practice were burdened with hard workload at school, lacked pedagogical and content knowledge, and low confidence on their teaching practices. Findings revealed that teachers' progress in teaching life skills were influenced by personal factors (e.g., teaching experience, value system, motivation for PD, knowledge), program factors (e.g., interactive sharing, socializing, informal networking), and contextual factors (e.g., support from school, school culture, peer support, workload). Based on the findings of this study, we discussed (a) the use of the implicit/explicit continuum of life skills development framework as a way to facilitate teachers' life skills teaching, (b) differentiating CPD strategies for to meet varying levels of teacher learning, and (c) the role

of the CPD facilitator to promote teachers' teaching life skills.

# Poster 2

# The Impact and Perceptions of Physically Active Brain Breaks on College Students' Physical Activity Levels

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Dr. Alicia Stapp (University of Mississippi)*

**Background:** The trajectory of sedentary behavior significantly increases in college-aged students. Critical barriers to college students engaging in physical activity include sitting in class, studying outside of class, and smartphone use. Thus, higher education should evaluate possible settings on university campuses that foster and promote a culture of health. The present study aimed to determine the impact of physically active breaks in a college classroom on students' physical activity levels while garnering their perceptions regarding participation in the breaks.

**Methods:** An embedded sequential mixed methods design was utilized. Participants ( $n = 117$ ) were enrolled in a teacher preparation course and wore pedometers during each class session for 11 weeks, while student interviews provided qualitative data. Normal distribution among the interval dependent variable was verified through a Shapiro-Wilk test and an independent samples  $t$ -test was conducted to test for significance between the two groups' means.

**Results:** Participants ( $n = 65$ ) in the experimental group acquired a higher step count on average during class ( $M = 149.47$ ,  $SD = 87.90$ ), compared to participants ( $n=52$ ) in the control group ( $M = 132.67$ ,  $SD = 39.03$ ). However, the experimental group step count average was not statistically significant when compared to the control group ( $t = 1.25$ ,  $p = .11$ ). Three themes emerged suggesting students' positive perceptions of the breaks: (1) experience is essential; (2) variety is key; and physically active brain breaks are (3) engaging for all.

**Conclusions:** This study revealed that incorporating physical activity into the college classroom increased students' daily physical activity. Additionally, due to experiencing the benefits of physically active brain breaks themselves, it cultivated pre-service teachers who will include this strategy into their own teaching. Our hope is that this trend will become a norm for all college classrooms while promoting a culture of health.

# Becoming a Self-Tracker: Sociotechnical and Bodily Dynamics of Using Fitness- and Health-Related Wearable Technologies

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Dr. Daniel Rode (Philipps-University Marburg), Prof. Martin Stern (Philipps-University Marburg)*

## Purpose:

Fitness-/health-related wearable technologies are increasingly significant to people's lives (Fox & Duggan, 2013). They are suggested to shape social practices and incorporated dimensions of selfhood like self-perception, body image, emotional and affective judgements (e.g. Lupton, 2018). Yet there is little empirical insight into the sociotechnical and bodily dynamics that constitute the impact of fitness-/health-related devices on people's lives and selfhood.

## Method:

We draw on qualitative case studies of German university students, who started using a wearable fitness-tracking device. The in-depth case studies analyze self-observing diaries of the students and episodic interviews conducted after four months with a Grounded Theory-approach (Charmaz, 2006).

## Results:

The result is a heuristic model of the process of *becoming a self-tracker*, which identifies three phases: (1) initial irritations and changes; (2) stabilization; (3) new destabilizations. The dynamics of each phase are detailed in two categories ((A) practices of usage; (B) bodily involvement and interplay) and six sub-categories: (A.i) playful new-discovering of what is familiar; (A.ii) modification of routines; (A.iii) initiation of new practices; (B.i) epistemic shifts and modification of practical sense; (B.ii) sensed bodily harmony and aesthetic self-perception; (B.iii) incorporation of technology.

## Conclusion:

A critical understanding of the impact of fitness-/health-related technologies on people's lives and selfhood is key for supporting healthy lifestyles, physical activity and social-emotional development in a digitalized world. For this, our heuristic model enables detailed insights into phases and dimensions of the sociotechnical and bodily dynamics of becoming a self-tracker. These should lead to an empirically grounded typology, which still requires a larger number of case studies.

## References:

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. London: Sage.  
Fox, S., & Duggan, M. (2013). *Tracking for Health*. Retrieved from: <http://pewinternet.org/Reports/2013/Tracking-for-Health.aspx>

Lupton, D. (2018). *Digital health: Critical and cross-disciplinary perspectives*. New York: Routledge.

# Impact of a Design-Based Exergame on Young Players' Moderate-to-Vigorous Physical Activity and Situational Interest

Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

*Prof. Cédric Roure (Université catholique de Louvain), Prof. Denis Pasco (University of Bourgogne Franche-Comté), Mr. Nicolas Benoit (Université catholique de Louvain), Prof. Louise Deldicque (Université catholique de Louvain)*

**Background and purpose:** During the last decade, a growing body of research and practice has built on children and youth interest in video games using exergames to promote health outcomes. However, despite the exergames benefits, children and teenagers may still not acquire adequate levels of moderate-to-vigorous physical activity when playing commercial exergames (Gao, Chen, Pasco & Pope, 2015). We adopted a design-based approach in which engineers in computer science and researchers collaborate to design exergames with the intention of promoting players' moderate-to-vigorous physical activity through fun digital activities. Defined as the appealing effect of characteristics of an activity on individuals, situational interest has been used in this study since it has been identified as a key function and as an outcome of exergames in terms of motivating students (Sun, 2013). The purpose of this study was to identify the impact of a design-based exergame, called Greedy Rabbit, on players' moderate-to-vigorous physical activity and situational interest.

**Methods:** The participants (60 undergraduate students) were randomly assigned to two groups: an experimental group playing Greedy Rabbit (N = 41) and a control group playing a placebo version of Greedy Rabbit (N = 19). The students' physical activity was assessed through heart rate and oxygen consumption. They also responded to a validated situational interest questionnaire (Roure, Pasco & Kermarrec, 2016) directly after playing the exergame.

**Results:** The physical activity measures increased more during the exergame for the experimental group, reaching the standard guidelines for vigorous physical activity. Furthermore, the students in the experimental group reported higher scores for situational interest compared to the students in the control group.

**Conclusion and implications:** All in all, this study demonstrated that a design-based exergame might be a good option to enhance players' moderate-to-vigorous physical activity and situational interest when playing exergames.

## References:

- Gao, Z., Chen, S., Pasco, D., & Pope, Z. (2015). A meta-analysis of active video games on health outcomes among children and adolescents. *Obesity Review*, 16(9), 783-794.
- Roure, C., Pasco, D., & Kermarrec, G. (2016). Validation de l'échelle française mesurant l'intérêt en situation, en éducation physique [French validation of the situational interest scale in physical education]. *Canadian Journal of Behavioural Science*, 48(2), 112-120.
- Sun, H. (2013). Impact of exergames on physical activity and motivation in elementary school students: A follow-up study. *Journal of Sport and Health Science*, 2, 138-145.



## The students' health promotion project "HEALTH4YOU"

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mr. Lutz Stöter (TU Braunschweig / Academic Sports Service / Sportzentrum)*

### **The students' health promotion project "HEALTH4YOU"**

#### **in cooperation with the german insurance Techniker Krankenkasse**

**Short description/target group** The "Empowerment" project at the TU Braunschweig has been designed to increase a student's knowledge of the most current health issues so that they are better able to independently and confidently maintain a healthy lifestyle.

The focus on 'empowerment' is to improve individual behaviour patterns. Through this program students will learn goal setting and be encouraged to monitor their own daily schedules of healthy activities which should have the added bonus of improving their university experience. By actively participating in the design and implementation of their own individual healthy program students will learn to become confident participants of their new healthy lifestyles.

**Background** The period of university study requires a high level of self-management for students. Challenging factors can be financing of the study as well as private and social issues or anxiety as result from performance pressures, over-packed curricula, a lack of orientation and perspectives, added job-pressure or complicated family relationships as well as partly missing or inadequate opportunities to simply get away and relax.

#### **Benefits**

As for the university, students and insurance, serious benefits will be identified and expected to be shown at the projects' end.

#### **Description of the first project year**

After preparing the project textually and implementing essential structures, an analysis was carried out in the form of focus groups method.

By active participation, the students also created logo and title "HEALTH4YOU – Gesund durch's Stadium" and decided on the priority of themes: movement, nutrition, self-management, relaxation and stress-management.

The first successful HEALTH4YOU SUMMER WEEK took place at the end of September 2018 – results will be reported at the projects' end.

#### **Expected Conclusion**

The project should be an excellent permanent addition to first-year student offerings at Technical University Braunschweig Academic Sports Service

## Why Do Runners Keep Running? Continuation Process for a Physically Active Lifestyle in Japan

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Dr. So Nemoto (Ikuei Junior College), Dr. Hiroshi WADA (Ikuei University), Dr. Yusuke Okada (Waseda University), Mr. Koji Hase (Ikuei Junior College)*

In Japan, since the introduction of the government curriculum in 1977, facilitating and continuing a rich, life-long physically active lifestyle has been a consistent goal of school physical education. However, the feasibility of this goal has almost never been demonstrated to date. In addition, the process for facilitating and continuing a physically active lifestyle in Japan has not been fully clarified. Accordingly, to consider the feasibility of the goal of Japan's school physical education, we must first clarify the process for facilitating and continuing a physically active lifestyle in Japan.

Based on the above information, this study aimed to clarify the process for facilitating and continuing a physically active lifestyle in Japan through interviews with runners involved in running projects in Japan with a large number of participants.

The survey participants were runners who had continued running for at least one year, and they were divided into two groups: one group of participants who were active runners, and another of those who no longer ran. The data collection method involved a semi-structured interview, and a grounded theory approach was used for analysis.

Based on the analysis results, we hypothesized that runners having a successful experience in their first marathon, which had an impact on whether they continued running thereafter. In research in classrooms on long-distance running in Japan, there is a tendency to stress the importance of giving students the experience of the joy of running, but the above hypothesis suggests that increasing endurance and teaching efficient running forms are also important tasks for school physical education courses.

## Implementation and follow-up of a project aiming to promote physical activity in overweight adolescents

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mr. Jérôme Rompen (University of Liege), Ms. Sarah Lepage (University of Liege), Prof. Marc Cloes (University of Liege)*

### **Background and purpose**

For a few years, the Department of Sport and Rehabilitation Sciences of the University of Liege has organized physical activity (PA) promotion events for overweight children and adolescents. One of the biggest difficulties has always been a lack of adherence and participation in these activities. According to the Self-determination Theory, exercise programs designed to satisfy the need for autonomy, competence and relatedness might increase PA adherence and promote a long-lasting active lifestyle (Deforche, Haerens & Bourdeaudhuij, 2011). The first purpose of this study was to implement a project aiming to promote physical activity in overweight adolescents. It consisted in 2 series of 8 collective PA sessions, leading to a team participation in a public charity sport event. The sessions included aerobic and resistance exercises as well as educational content. This study also aimed to evaluate the motivation of the participants for this project and its impact on their lifestyle.

### **Methods**

15 overweight adolescents voluntarily participated in this study (aged 12 to 18 years). Data were collected using a questionnaire and interviews before and after the program. A short questionnaire was also completed by the participants and the instructor at the end of each PA session.

### **Results**

After the first 8 sessions, no dropout has been observed and the attendance rate reached 79.2%. Moreover, the motivation level of the participants regarding the sessions seemed high. On a scale of 0 to 5, it reached an average of  $3.71 \pm 0.49$  and  $4.17 \pm 1.3$ , from the point of view of the instructor and the participants, respectively.

### **Conclusions and implications**

These preliminary findings are encouraging to continue with the project. Future data will allow us to analyze the evolution of motivation and adherence of the participants through the program and to evaluate its impact on PA habits of the participants.

## The effect of motor skill activities on the social communication skills of learners diagnosed with Autism Spectrum Disorder: A Case study

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mrs. Chantell Gouws (University of Zululand), Dr. Cornelia Du Preez (University of Zululand), Dr. Sumeshni Govender (University of Zululand)*

**Background:** Children diagnosed with Autism Spectrum Disorder (ASD) face several challenges but the major challenge is social communication. However, little is known about the effect of motor skill activities on the social communication of children diagnosed with ASD (Mash 2016).

**Objective:** This study investigated the effect of motor skill activities on the social communications skills of learners diagnosed with ASD, attending a school specializing in ASD.

**Methodology:** A case study design was utilized with the purpose of sampling of learners attending the center specializing in ASD which was also the setting for the research. A social communication rating scale was used in the observation of three boys between the ages of 6 and 8 years from different ethnic groups during their motor skill activities. Observations were done with a qualified Occupational Therapist over a period of eight weeks.

**Results:** In general, their social communication skills improved over the period of eight weeks. **Conclusion:** Communication and motor skills are central to the management of ASD, as it contributes to learner's interaction with Therapists and fellow learners during motor skill activities

## Healthy lifestyle in adolescents and its association with subjective health complaints

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Prof. Adilson Marques (Faculdade de Motricidade Humana, Universidade de Lisboa), Prof. João Martins (Faculdade de Motricidade Humana, Universidade de Lisboa), Prof. Elvio Gouveira (Department of Physical Education and Sport, University of Madeira), Dr. Miguel Peralta (Faculdade de Motricidade Humana, Universidade de Lisboa), Prof. Margarida Gaspar De Matos (Faculdade de Motricidade Humana, Universidade de Lisboa)*

**Background and purpose:** It is important to have a better understanding of the factors associated to subjective health complaints. The study aimed to investigate the relationship between adolescents' subjective health complaints, several health behaviours and a composite measure of healthy lifestyle. **Methods:** Data were from the Health Behaviour in School-aged Children (HBSC) survey. Participants were 171306 adolescents, aged 10-16 years, from 37 countries and regions. A composite score of healthy lifestyle was created using the combination of daily physical activity, daily consumption of fruit and vegetables, spent <2 hours daily in screen-based behaviours, never drinks, and never smokes. The subjective health complaints assessed were headache, stomach ache, backache, dizziness, feeling low, irritability, nervousness, and sleep difficulties. **Results:** Adolescents who engage in physical activity every day, spend less than 2 hours a day in screen-based behaviours, do not drink alcohol, and do not smoke tobacco presented higher likelihood of not having subjective health complaints. Having a healthy lifestyle was significantly related with having less of all the subjective health complaints. Having a healthy lifestyle was 50% (OR= 0.5, 95% CI: 0.5-0.6,  $p<0.001$ ) less likely of having multiple health complaints, compared to those who did not have a healthy lifestyle. **Conclusion:** Healthy behaviours, individually, and healthy lifestyle are related with less subjective health complaints, and with less multiple health complaints.

## Example of setting up “Physical Activity Pauses at School” (PAPS) in the Wallonia-Brussels Federation (Belgium)

Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

*Mr. Jérémy Bonni (University of Liege), Ms. Stéphanie Cloes (École fondamentale libre de Chênée), Prof. Marc Cloes (University of Liege)*

As it has been underlined in the 2016 Active Healthy Kids Belgium Report Card on Physical Activity for Children and Youth shows that, practicing at least 60 minutes of moderate to high physical activity (PA) daily, only 7% of children aged 6 to 9 and 2% of young people aged 10 to 17 meet the international recommendations of the World Health Organization (Wijtzes et al., 2016).

Several authors recommend inserting 4 to 6 minutes physical activity breaks, once or twice a day, into the usual activities of the class (Ma et al., 2015). In the French speaking part of Belgium, Cloes & Cloes (2018) adapted that approach and proposed a specific version called PAPS (Physical Activity Pauses at School).

The present study was conducted within a collaboration between the Consortium “Physical Activities, Wellbeing and Health” involved in the implementation of a major reform of the educational system and Viasano, a non-profit organization promoting physical activity in Belgian cities/communities. It aimed to analyse the perceptions of classroom teachers about the PAPS’ impact on pupils’ motor engagement during the pauses as well as on some cognitive variables (attention, concentration, and focus on the task).

Two groups of classroom teachers (n=20) attended to a half-day seminar designed to prepare them to propose PAPS to their pupils (primary school level). Pre- and post-training questionnaires and roadbooks were fulfilled by the subjects. Reports of informal lessons’ observation, and qualitative observation of videotapes provided data on the teaching process.

11 out of the 20 teachers finally implemented the PAPS. Most of those who did not explained that they did not have a multimedia system in their classroom. It is surprisingly as using PA videos was only one of the approaches proposed during the seminar. Those subjects who implemented the PAPS until the end of the school year (4 months intervention period) expressed their satisfaction, mainly when they were not sure to implement the PAPS at the beginning. They generally underlined the constraint of class space as the main barrier. Subjects underlined that their pupils were motivated by the PAPS. They considered also that pupils’ on-task behaviour improved after these pauses.

## Research trends on sport education in the 2008-2017 decade

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mr. Joan Aleixandre Agulló (Facultad de Filosofía y Ciencias de la Educación. Universitat de València. Spain), Dr. Lourdes Castelló Cogollos (Departament de Sociologia i Antropologia Social. Universitat de València. UISYS, Unidad Mixta de Investigación CSIC-Universitat de València.), Dr. Víctor Agulló Calatayud (Departament de Sociologia i Antropologia Social. Universitat de València), Dr. Rafael Aleixandre Benavent (UISYS, Unidad Mixta de Investigación, CSIC- Universitat de València. Ingenio (CSIC-UPV)), Dr. Antonia Agulló Martínez (Unidad de Documentación Clínica y Admisión-UDCA. Hospital Universitari i Politècnic La Fe. Valencia, Spain.), Dr. Francisco Jesús Bueno Cañigral (Plan Municipal de Drogodependencias; UPCCA Valencia. Concejalía de Sanidad, Salud y Deportes. Ayuntamiento de Valencia. Spain)*

**Background and purpose.** Science and research has allowed understanding the importance of Physical Education in personal development and health. Physical activity and sports constitute an essential part of children, teenagers and adults daily life. In the present work, the scientific literature published in this field during the 2008-2017 decade is analyzed through a bibliometric study.

**Methods.** The searches were conducted Science Citation Index-Expanded and in the Social Science Citation Index (2008-2017). The search profile combines 2 search equations with terms related to physical activity (“sport \*”, “exercise \*”, “physical activity”, “calisthenic \*”, “gymnastic \*”, “physical train”) and the education (“educ \*”, “health educ \*”, “teach \*”, “learn \*”, “instruct \*”, “pedagog \*”, “physical educat \*”), which were selected taking into account their importance in the field.

**Results.** The total number of articles published has been 2,438. The annual evolution of published articles shows an upward trend, with an annual average of 243 articles. The journal that published the most articles was Sport Education and Society (n=77), followed by European Physical Education Review (n=52) and Physical education & Sport Pedagogy (n=50). The country with the highest number of published works was the United States (n=750), followed by the United Kingdom (n=267) and Spain (n=250).

**Conclusions and implications.** A high degree of citation has been detected, with more than 20 works that have been cited more than 100 times. An annual increase in publications has been detected, which is a sign of the progressive interest that education represents in sports. The field studied is related to different thematic areas, such as social sciences, health, rehabilitation and psychology. Europe, the United States, Canada and Australia are the countries with the highest production in this field.

## Giving students a voice – Inclusive PE in the eyes of PE students

Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

Dr. Stefan Meier (University of Vienna), Dr. Sebastian Ruin (Philipps-Universität Marburg)

### Background and purpose

Beside others, the global agenda towards inclusive education claims for different views on PE. For this reason, the individual perspectives of PE students come to the fore. However, corresponding concerns were mostly constructed out of the perspectives from PE teachers. Towards PE students' perspectives regarding inclusive PE only small evidence can be found (Reuker et al., 2016) – although they are the “main actors” quantitatively. To promote inclusive PE knowledge about PE-students view on this setting, not least such with special requirements (i.e. culture, social background), are very enriching in this context. Behind this lies the assumption that a critical investigation of individual perspectives on inclusive PE discloses potentials and obstacles for inclusive PE in future (Meier et al., 2017).

### Research Methods

For that reason, an interview study was designed (Ruin & Meier, 2018). 41 PE-students in different schools in one area in Germany were interviewed. The selection of these settings guaranteed inclusiveness by migration, sex, socio-cultural background, and special education needs. The content analysis was carried out by deductive-inductive categories (i.e. potentials, obstacles, general statements towards PE).

### Results

The multifaceted findings highlight for example that frequently discussed aspects in the context of inclusion (i.e. special education needs) were rarely named by PE students. In fact, those kinds of aspects were entitled as potentials surprisingly.

### Discussion and Conclusion

This may indicate that differentiating categories, which are oftenly problematized in the context of inclusive PE appear less delicate in the eyes of PE students. Moreover, the “students' perspective” pointed out a few aspects which did not receive much emphasis earlier, and which could enrich and inspire future research.

### References:

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- Reuker, S., Rischke, A., Kämpfe, A., Schmitz, B., Teubert, H., Thissen, A., & Wiethäuper, H. (2016). Inclusion in physical education classes. An overview of international research results from 2005–2014. *German Journal of Exercise and Sport Research*, 46(2), 88-101.



## From ‘Chaos in the Brickyard’ to an Integrated Physical Literacy Curriculum

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Dr. Jennifer Mead (Bridgewater State University), Dr. Maura Rosenthal (Bridgewater State University),  
Dr. Karen Pagnano-Richardson (Bridgewater State University)*

As Forschert (1963) argued in his letter to the editor, Chaos in the Brickyard, creating “edifices” made up of specialized subdisciplines in Kinesiology provides little room for collaboration or synthesis and results in chaos for undergraduate students trying to understand connections between ideas. Focused on physical literacy, this poster demonstrates our process from Program Review to curricular change in our Physical Education core courses. Moving from distinct courses in traditional subdisciplines to an integrative learning model across multiple courses that reinforces key constructs of physical literacy allows students to reflect on their growth as experts in “healthy and active lifestyles” in communities (American Kinesiology Association). The revised curriculum centers on the constructs of physical literacy including motivation, physical competence, and knowledge of physical competence for all citizens across the lifespan (International Physical Literacy Association, 2017). Physical Literacy is a worldwide movement with broad goals thus connecting our students and faculty to a global context.

Gill (2007) proposed that Kinesiology’s strength is a unified mission, with movement at its center, and a rigorous, integrated curriculum in a multidisciplinary field. By working to integrate knowledge, students will be equipped to work on issues in public health including equitable access to physical literacy activities. Students will be considering and planning for the needs of diverse populations in exercise settings in multiple core classes. Through an integrated PHED Core, the department will be able to lead on campus and beyond. Integrative and applied learning is one of the Association of American Colleges and Universities’ essential learning outcomes. Students will demonstrate knowledge and skills across classes, experiences, and ideas (Essential Learning Outcomes, 2018). Through the addition of a 200-level course focused on understanding Physical Literacy, and a required capstone experience, the new PHED Core provides all students explicit practice and scaffolded experiences.

## **‘Pulse for learning and health [PuLH]’ in primary school; pupils’ experiences**

Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

*Prof. Eva-Carin Lindgren (1) School of Health and Welfare, Halmstad University, and 2) Department of Food and Nutrition, and Sport Science, University of Gothenburg), Dr. Katarina Haraldsson (3) Department of Research and Development within Education, Region Jönköping County, and 4) Department of Public Health and Community Medicine/Primary Health Care, Sahlgrenska Academy, University of Gothenburg), Dr. Linn Håman (1) School of Health and Welfare, Halmstad University)*

To improve academic performance and health in schoolchildren, the program *Pulse for learning and health*[PuLH] in Sweden has introduced moderate to vigorous physical activities [MVPA] three times a week (å 30 minutes). The teachers used a child-centered coaching approach, which has the child’s best interests in mind and focused on having fun. The objective of this contribution is to describe what Swedish pupils convey, using their own voices, about their experiences of participating in the school-based program PuLH. We have taken on children’s perspectives in order to be able to understand the children’s own culture. Eight schools in the Region of Jönköping, Sweden, have implemented PuLH. In total, 73 pupils (34 girls, 39 boys, grades 4-9) were recruited through purposive sampling. Thirteen focus group interviews (n=71) and individual interviews (n=2) were carried out. An explorative design was employed, in which data were categorized using qualitative content analysis. The analysis resulted in four major themes, which we classify as ‘promotes academic performance’, ‘promotes a learning school environment’, ‘promotes health and well-being’, and ‘individual and structural barriers’. The pupils stated that they increased their working capacity, the classroom environment became more calm and peaceful, they got more cohesion and new friends, their needs and interest were in focus, they felt more alert and got in a better mood, they increased their physical competence, their habits became healthier and illness decreased. However, some of the pupils revealed individual and structural barriers, which reduced pleasure and motivation to participate in MVPA due to; poor planning and that they felt time pressure, felt uncomfortable showing their bodies and digital challenges. We recommend that schools take pupils’ interests and needs into consideration when planning for and implementing MVPA activities and not use MVPA as a ‘quick fix’ i.e. to solve complex problems regarding pupil’s learning.

# The TILPAS project - Teachers ImPLementing Physical education for All Students

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Dr. Søren Smedegaard (FIIBL, University College Lillebaelt & The University of Southern Denmark), Ms. Louise Stjerne Knudsen (University of Southern Denmark), Dr. Lars Breum Christiansen (University of Southern Denmark)*

## **Background and purpose**

In Denmark, approximately 85% of children and youth attend public municipal primary and lower secondary school, which means that the public school meets children of all sizes and shapes. For many years, public schools have sent children with disabilities to special classes or schools. Also, children with disabilities, that are part of the 'ordinary school', are often excluded from physical education (PE). With the latest Danish school reform, emphasis has been placed on including all children in the 'ordinary school'. However, inclusion of children with disabilities in PE is still a challenge.

The purpose of this presentation is to give insights into barriers and facilitators to engage children with disabilities in PE and offer solutions for the education of current and future PE teachers in Denmark.

## **Main points of the presentation**

The presentation will address the discrepancy between the intention to include all children in PE and the reality of day-to-day practice.

The presentation will present a project across University Colleges, University of Southern Denmark and NGO's, supported by the Danish Ministry of Education, which takes off from the overall purpose of school PE in Denmark - the development of bodily, sports, social and personal competencies - to increase and improve the participation of all children in school PE.

## **Relevance to conference aims and themes**

The presentation addresses the conference theme 'Physical Education and Physical Literacy' and more specifically, how school PE must be able to help all children and youth to develop their capacity to move with competence and confidence to benefit the healthy development of the whole person.

## **Conclusions and implications of your presentation**

International studies show, that cooperative and supportive efforts between educators, children and parents are crucial in creating PE environments that effectively respond to learner diversity. This project aims to contribute to both practical teaching guidance and education of current and future physical educators.

## The physical Literacy Syndrome : Searching out Implications for Physical Education in Korea

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mr. HYUNGSIK MIN (Seoul National University), Dr. Euichang Choi (Seoul National University), Dr. Okseon Lee (Seoul National University)*

‘Physical Literacy’ (PL) has gained attention around the world. In English-speaking countries, the concept of PL has already been adopted in various fields such as sport, health, education, and recreation. The national curriculum for Korean physical education (NCPE) also encourages lifelong active participation in physical activities (PA), however research and examination into how well physical education is playing this role are insufficient. Therefore the purpose of this paper is to examine the international trend of PL in PE and to provide insights to the implications for Korean PE.

Systematic literature review on PL in PE was conducted to understand the international trend. Four databases were searched using the PRISMA (Edwards et al., 2016; 2017). Inclusion criteria were papers published from the years 2010 to 2018 and written in English, while reports, dissertations, editorials, letters and quantitative research papers were excluded. A total of 593 papers were first found, however after filtering, 32 papers were finally selected for reviews. Studies which were unrelated to PE, PE curriculum and PE classes were excluded. To understand the international trends of physical literacy in PE area, the three dimensions of sports pedagogy suggested by Choi (2003) was used and adopted: (a) philosophical dimension, (b) theoretical dimension, and (c) practical dimension. Firstly, the review showed that PL has implications on Korean PE in terms of philosophical dimension by seeking: (a) re-justification of values of physical activity, (b) re-examination of goals of PE. Secondly, in the theoretical dimension, PE provided insights on (a) strengthening interconnectedness among various sub-disciplines in kinesiology, and (b) accepting evolving nature of physical literacy concept. Thirdly, in terms of the practical dimension, PL provided insights on (a) individualization and contextualization of educational content and methods, (b) charting educational assessment, (c) connecting and integrating family/school/community for enhancing physical activity participation, and (d) integration of school physical education/elite sports/community sports.

## A Systematic Review of Smart Learning Contents and Effects in Korean Physical Education Classes

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mr. UNJONG LEE (Seoul National University), Ms. Hyeyeon Kim (Seoul National University), Mr. Pyungho Woo (Seoul National University), Dr. Okseon Lee (Seoul National University)*

In Korea, there is a growing interest on smart learning in physical education to meet the diverse needs of students and overcome environmental constraints in the implementation of physical education classes. Despite this interest, however, there is lack of understanding on what types of contents were developed and for what purpose smart learning contents are used. The purpose of this study was to analyze the content of smart learning materials adopted in physical education in Korea and to provide suggestions for future smart learning in physical education. A systematic review was conducted to analyze papers published in Korean journals from 2011 to 2018. A total of 524 research articles were collected from the Korea Education and Research Information Service(KERIS) search engine (RISS: Research Information Sharing Service), and the final analysis was carried out with 14 research articles after two exclusionary steps. These studies were analyzed using the theoretical framework of social constructivism, and the contents classification and utility of Korean smart physical education class were analyzed.

Through the review, Korean smart physical education contents were classified into information collection tool, communication tool, collaboration tool, simulation tool, reflection tool, and performance support tool. The types of contents in Korean smart physical education classes had effect on overcoming limitations of teaching and learning environment, increasing motivation for student learning, enhancing active interaction, improving motor skills and knowledge, and promoting self - directed learning.

Based on the findings, suggestions for future smart learning such as enhancing students' media literacy to glean appropriate tools and information, increasing infrastructure of smart learning, providing professional support to use smart learning not only for instruction but also for assessment and reflection were provided.

[o1]Inclusion/exclusion criteria 넣으세요

## **Students' self-monitoring and self-regulation in situated apparatus gymnastics learning; An analysis of elementary school children's drawings and interviews**

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. Naho MATSUMOTO (Akita University)*

### Background and purpose

In student centered physical education learning, teacher set situated surrounding and facilitate students' self-regulation learning. How student monitor their own PE learning and what is process of students' recognition? Langly(1995) investigate the focus of university student cognition within a skill learning setting during 10-week Bowling. And he pointed out that university student learn from error, analyzed cause and determine improvement strategy. It is suggestive but we need to know more and in depth students' cognitive learning process especially in school PE setting. Research question are (1) How student monitor their own physical activities? (2)What is a strategy to gain better skill or movement? (3)What is the factor to facilitate for students' self-regulation learning?

### Methods

In this study, children's drawing analysis was used as method, as include the inner voice of children. Thirty two fifth-grade elementary school students (15 boys, 17 girls) participated in a four-week apparatus gymnastics unit consisting of 6 45-minute lessons. Data was collected through drawing and additional explanation writing (n=180); Student draw and wrote during free time in school after the lessons, in response to an open question. In addition, group and personal semi-structured interviews with and without drawings were conducted immediately after every class. Drawing and interview data were coded thematically. Trustworthiness was established through triangulation of data and member checks.

### Results

Themes emerged as following way; Points for skill succeed, body status of fail, difficulty, kinesthetic sense through trials, meaningful observation, critical thinking through trials, advise, outcomes of practice, next goal.

### Conclusion

The results of this study showed that; Students recognized points for skill succeed, body status of fail as activities monitoring; Student did meaningful observation, critical thinking through trials as learning strategy; Advice from other learner and perceive feeling outcomes of practice facilitate their own self-regulation learning and to make next goal.

## Cooperation, Balance and Flexibility - a project in pre-school education

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Prof. Rui Neves (University of Aveiro), Ms. Inês Franco (University of Aveiro), Ms. Viviana Gouveia (University of Aveiro)*

In the scope of motor activities in the early years, cooperative attitudes and practices, when promoted on a regular and systematic basis, may enhance children's motor performance. In this way, it was aimed to characterize its influence in capacities such as balance and flexibility in children. Through an action research project developed with 20 pre-school children (13 boys / 7 girls aged 3 to 6 years) from an institution in the city of Aveiro (Portugal) data were collected before (initial evaluation – IE) and at the end (final evaluation - FE) of the project development centered on the study of equilibrium capacities (3 tests with scales / descriptors - I Static, II Dynamic, III Dynamic with Coordination) and flexibility (test sits and reaches). Children were organized into pairs, having an older child with a younger one. Throughout the project were developed several sessions of Motor Expression with the inclusion and a track of varied forms of cooperative work between peers. The data were treated in terms of descriptive statistics. Two cooperation groups were identified that together showed the best results (IE + FE). In the balance, the mean values were 3.1 and 2.45, (scale 0-5) and the mean flexibility of 9.5 cm and 5.5 cm. The group presented mean values at equilibrium as: 2.4 (IE) and 3.3 (FE) and flexibility: 4.2 cm (IE) and 7.4 cm (FE). We conclude that children, when motivated to perform activities of Motor Expression, can enhance their motor development based on strategies of cooperation between them. These positive results can be indicators of the importance of the promotion of pleasure when performing Motor Expression and will to overcome challenges that may be faced, based on a strong cooperative work amongst children in the development of fundamental motor skills such as balance and flexibility.

# How do you experience dramatization? The Oblomov approach perceived by Belgian PE teachers

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. Maurine Remacle (University of Liege), Dr. Alexandre Mouton (University of Liege), Mr. Nicolas Franck (University of Li),  
Prof. Marc Cloes (University of Liege)*

## Introduction

In order to motivate youth to adopt an active lifestyle, new pedagogical approaches are needed. In that perspective, an innovative way has been proposed within the scope of an Erasmus+ program: the ObLoMoV (Obesity and Low Motility Victims) project (see <https://www.oblomovproject.eu/>). Its originality lays on the combination of two components (Vitale & Pasetti, 2018): High Intensity Intermittent Training (HIIT) and dramatization (use of open scenarios). For physical education (PE) teachers, theatrical techniques are not necessarily easy to use. In the present study, the aim is to determine how teachers did manage the integration of unusual pedagogical principles.

## Methods

Five PE teachers working in primary schools in the area of Liege (Belgium) were recruited on a voluntary basis. They attended to a training session aiming to teach them how to implement a 10 lessons unit respecting the guidelines of the Oblomov methodology and, particularly, the way to build an imaginary world in which the pupils could immerse themselves. The teachers answered to questionnaires and interviews while two of the co-authors conducted an informal observation of their behavior during the activity. During the unit, after each lesson, teachers sent audio reports summarizing what happened. A content analysis has been processed.

## Results and conclusions

Regarding PE teachers, 14 pre-post training's questionnaires, 10 pre-post cycle's questionnaires and 58 voices reports have been collected and analyzed. Preliminary results about the training showed that the dramatization was the least appreciated aspect that they experienced and expressed reserved opinions about the pupils' interest on the imaged context. However, progressively, their comments became more positive. At the end of the unit, 4/5 were convinced about the positive impact of the open scenarios on pupils' motivation. Further analyses will help to better understand why the opinion of teachers has changed.



## Construction and validation of developing physical literacy-oriented instrument in 12-year curriculum perspective

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. En-Hua Chan (Department of Physical Education, National Taiwan Normal University /), Prof. Nyit Chin Keh (Department of Physical Education, National Taiwan Normal University /), Prof. Ching-Wei Chang (Department of Physical Education, National Taiwan Normal University)*

Taiwan emphasized “core competencies” as the main axis of curriculum development and guided the development of the curriculum guidelines of “Health and Physical Education Learning Areas. It led the development of primary and secondary school physical education curriculum in the direction of “Su Yang” (comprised competence and literacy). “Physical literacy” has recently been valued by many countries worldwide and emphasized the holistic development of students’ motivation, confidence, physical competence, knowledge and understanding. In order to help students to value and take responsibility to engage in physical activities for life, the development of the philosophy of lifelong learners were emphasized. In views of the cross-collection of the “core competence” and “physical literacy” of the National curriculum could be developed into a “literacy-oriented physical education curriculum”. Therefore, there was a need for developing physical literacy-oriented instrument. This study was based on the concept of physical literacy understanding in Taiwan established by previous Delphi study. Questionnaire of 4 dimensions: “Cognition”, “Affective”, “Physical competence”, and “Behavior”, was administrated to a total of 272 physical education teachers (142 males and 130 females) from elementary school to high school. The physical literacy-oriented instrument in 12-year curriculum using 5-point Likert scale was developed by exploratory factor analysis (EFA). The EFA resulted in 18-items, including four factors: 5 items of “Knowledge of Use”, 5 items of “Affective Attitude”, 5 items, “Physical Competence and Caring” and 3 items of “Action Practices”. Cronbach’s alpha was ranged from .70 to .85. This instrument initially indicated good reliability and validity. The reliability and validity of this instrument could be further verified. It also could be used as reference for the alignments in setting the course objectives, teaching content, and planning the learning assessment by the teachers implemented the literacy-oriented curriculum design.

**Keywords:** Curriculum transform, literacy-oriented, instrument development, factor analysis, physical education

## Validating the Chinese Scale for Psychological Need Dissatisfaction in Secondary PE

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. Juanita Sin Ting Cheung (The Chinese University of Hong Kong), Prof. Amy Sau Ching Ha (The Chinese University of Hong Kong), Dr. Johan Yau Yin Ng (The Chinese University of Hong Kong)*

**Objectives:** The purpose of this study was to validate a Chinese scale for tapping secondary school students' need dissatisfaction experiences in physical education (PE).

**Methods:** The scale was adapted from the study of Costa et al. (2015). A back translation protocol was adopted for translating the psychological need dissatisfaction (PND) scale into Chinese and adapted the context into PE. The factor structure of the scale was examined using exploratory factor analysis (EFA; Study 1) and confirmatory factor analysis (CFA; Study 2). Test re-test reliability was examined in Study 3.

**Results:** In Study 1, with a sample of 331 Hong Kong secondary school students (mean age=14.02 ± 1.11), results from EFA suggested a three-factor structure (competence, autonomy and relatedness) for the PND scale. One item of the competence construct was deleted due to a high cross factor loading on another factor instead of the intended factor. In Study 2, after deleting the item with low factor loading, results revealed a significant scaled  $\chi^2(74) = 162.31$ ,  $p < .01$ , but with an excellent fit to the model according to the approximate fit indices: TLI = .95, CFI = .96, SRMR = .04, RMSEA = .06, RMSEA 90% CI [.04, .07]. Item scores loaded strongly on the intended factor (mean  $\lambda = .83$ , range = .72-.90). For Study 3, two-way single-item measure demonstrated similar overall reliability of most of the subscales at an acceptable level with the intra-class coefficients ranged from 0.603 to 0.733 (CI: 0.42–0.83,  $p < 0.001$ ). However, the relatedness subscale of PNS should be reviewed due to low test-retest reliability reported (ICC = 0.39, 95% CI: 0.17–0.58,  $p < 0.001$ ).

**Conclusion:** The findings provide initial support for the PND scale which will be used to examine the associations between student's need dissatisfaction experiences and motivational regulations in PE.

**Reference:**

Costa, S., Ntoumanis, N., & Bartholomew, K. J. (2015). Predicting the brighter and darker sides of interpersonal relationships: Does psychological need thwarting matter?. *Motivation and Emotion*, 39(1), 11-24.

## The development of skill and tactical competencies in badminton under a technical challenge integrated directed teaching method

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mr. Wei Wang (The College of Physical Education, Hubei Normal University), Mr. Hairui Liu (The School of Kinesiology, Auburn University), Prof. Chunhe Zhang (The College of Physical Education, Hubei University), Mr. Shu Zhou (The College of Physical Education, Hubei Normal University), Prof. Peter Hastie (The School of Kinesiology, Auburn University)*

### Background

The teaching of physical education in Chinese universities has an emphasis on single skill learning and technical mastery, but it neglects the application of these skills in authentic games settings. The goal of this study was to improve students' ability to execute appropriate skills in actual play, by introducing an intervention based on competitive "play practice".

### Methods

Twenty-Nine Chinese university students (11 females, 18 males) participated in this study. All were physical education majors who had chosen badminton as their concentration. Classes met twice a week for 90 minutes over 16 weeks. Each class consisted of 70 minutes of traditional instruction, while the last 20 minutes comprised of a game-based challenge that reinforced a specific tactical aspect of badminton play. Four test items (administered in weeks 2 and 14) were used to evaluate the intervention: the wall volley and French clear test, game performance, and tactical problem solving were also measured.

### Results

Students made significant gains in the clear test, and in the skill dimension of game performance. No significant gains were found for volleying or tactical problem solving.

**Conclusion:** Adding technical challenges in traditional teaching had differential influences on the skill, performance and tactical accomplishment of badminton specializing students. While the teaching process consolidated and strengthened high frequency actions (e.g. the clear), it may be that the 20-minute technical challenge for each class may have been too short, which thereby affected the potential for improvement in strategy and then overall performance. In addition, given that the Chinese student's skills in badminton were already quite advanced, changes in tactical understanding proved more elusive. Future research is needed to unearth play practice challenges that maximize tactical/technical stress, and to explore the best balance of the time spent in technical instruction with game play time.

## Developing an Active and Healthy School Campus in Hong Kong

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. Gigi CHO (The Government of the Hong Kong Special Administrative Region Education Bureau), Mr. Ken Wong (The Government of the Hong Kong Special Administrative Region Education Bureau), Mr. Kent Wong (The Government of the Hong Kong Special Administrative Region Education Bureau), Mr. Chris FUNG (The Government of the Hong Kong Special Administrative Region Education Bureau), Mr. Chi Kong CHAU (The Government of the Hong Kong Special Administrative Region Education Bureau)*

Participation in quality physical education (PE) is one of the entry points necessary for students' lifelong participation in physical activity (PA), sport and in society at large (UNESCO, 2015). Regular participation in PA enhances students' fitness level and cognitive control, as well as contributes to their physical and mental health. As such, the Education Bureau of HKSAR Government organised the PE teachers' professional network for developing good practices to facilitate students to stay active<sup>1</sup> at 10 primary schools and 10 secondary schools.

Two good school practices were selected from the network for demonstration. In the primary school, it provided additional opportunities for PA participation in different timeslots:

- (i) Recess: modified games, such as “speed ladder”, “saving cones” and “hit monsters” were provided;
- (ii) Lunch break: PA practices, such as rope skipping, table tennis and volleyball were provided; and
- (iii) After school: about 20 school extra-curricular activities, such as dodgeball, swimming and rugby were provided, more than 700 students engaged.

In the secondary school, it provided the following opportunities for students to enable them taking part in PA beyond PE lessons in different occasion:

- (i) Take part in drilling practice after school;
- (ii) Join interest class training; and
- (iii) Participate in sports training course at the nearby community centres.

Students were asked to provide records of training/practice at the end of each term.

Based on the evaluation results (2017/18 s.y.), the PA participation rate in these two primary and secondary students were improved from 8% to 22% and from 9% to 17% respectively. We are looking for different effective practices to enhance students' PA participation, especially in a limited free space/ sports facilities in Hong Kong.

<sup>1</sup>:Students are recommended to accumulate at least 60 minutes of moderate- to vigorous-intensity physical activities (MVPA60) daily.

# **TITLE; The effects and differences between the coach and the teachers of EPS in the use of Demonstration Style (Global-Partial) During Motor Learning skills of Complexes and Simple Skills**

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Dr. Youssouf SAIDI ZERROUKI (University of Hassiba Benbouali, Chlef.)*

**Aims:** This study want to illustrate the different between coach and teachers of physical education on demonstration style using during motor learning of complexes and simple skills

**Sample:** the sample of our study is comprised from coach and teacher of physical education, its comprised for 100 teacher and 75 coach from chlef and aindefla province, (The Province is located about 200 Km from Algiers capital )

**Pilot study (instrument):** both of the coach and teacher complete an questionnaire that comprised from 36 question within 12 item for each collective sports (handball, volleyball, basketball) ,where we evaluated and ask him about six motor skills in each sports within the identification of the degree of the hardness and easily of each skills ( from -to very hard- hard -easy - very easy) than choosing the ideal demonstration style(global/partial) use for the best and fastest ways.

**Result:** the results showed that the ideal and preferably style or method used by both teachers and coach to learning the volleyball and basketball skills is the partial style/ways, where this results is different when we want to learning handball skills where the major teachers and coach preferably the global style, in addition to this the results reveal that there no different in the classification of the degrees in hardness or easily between coach and teachers

**Keyword:** Demonstration Style (Global-Partial), Motor Skills, motor learning

## Initial Validation of the Physical Educators' Motivating Styles Scale (PEMSS)

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Dr. Nicholas Washburn (Western Washington University), Dr. K. Andrew R. Richards (The University of Illinois at Urbana-Champaign), Mrs. Victoria Ivy (University of West Georgia)*

**Background/Purpose:** Physical education (PE) teachers' motivating styles influence students' psychological need satisfaction (Haerens et al., 2015). However, a practical means for measuring the extent to which they do so is unavailable. Therefore, this study sought to validate the Physical Educators' Motivating Styles Scale.

**Methods:** Guided by self-determination theory (Deci & Ryan, 2008) and previous research (e.g., Standage et al., 2005), statements reflecting need-supportive and -suppressive behaviors were generated, reviewed by an expert panel, and revised. A survey was then generated using Qualtrics and completed by 297 PE teachers from the north-eastern US. Respondents indicated the extent to which each statement was accurate for them using a seven-point Lykert Scale (1 = *very accurate*; 7 = *very inaccurate*). Factor analysis was then performed.

**Results:** Exploratory factor analysis yielded 10 manifest indicators loading on three factors: *autonomy support* ( $n=4$ ), *structure* ( $n=3$ ), and *relatedness support* ( $n=3$ ). All loadings exceeded .4 except for one structure item (.35). Internal consistency for all factors exceeded  $\geq .70$ . Confirmatory factor analysis resulted in questionable model fit:  $\chi^2(32) = 61.57$ ,  $p < .001$ , RMSEA = .068 (90% CI = [.042, .093],  $p = .121$ ), SRMR = .063, NNFI = .864, CFI = .903. The model did not demonstrate adequate convergent and discriminant validity. While all but one factor loading exceeded .40, only the  $p$  value for relatedness support (.72) exceeded the .70 threshold. All AVE values were below .50, and the *values for all three factors failed to exceed their correlation with all others in the model*.

**Conclusions and Implications:** *A practically useful means of assessing contextual motivating styles is needed. This research is an initial step, however results indicate that additional study is needed. Aligning with Reeve's (2009) perspective, future research might center on autonomy support, allowing for items to focus on a more polarizing construct.*

## Identification and validation of good practices promoting physical activity, well-being and health through a collaborative didactic engineering approach

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mr. Jérémy Bonni (University of Liege), Mr. Jean-philippe Dupont (Haute École Léonard De Vinci), Mr. Benoit Vercruysse (Haute École Robert Schuman), Ms. Sylvie Herreman (Haute École Condorcet (Mons)), Prof. Marc Cloes (University of Liege)*

Since 2016, the Wallonia-Brussels Federation (FWB - French speaking part of Belgium) prepares the implementation of a substantial reform of its educational system. One of the axes of that project called 'Pact for Excellence in Education' (PEE) deals with a deeply modification of the core curriculum that will emphasize 8 domains. Among these domains, one directly involves physical education (PE): "Physical Activities, Wellbeing and Health". It means that there is a need to redefine PE teachers' missions and priorities as well as preparing them to implement actions in health education.

The Ministry of Education mandated a group of experts from the 12 French-speaking institutions involved in physical education teacher education (PETE) in order to identify, design and share teaching resources respecting the principles advocated by the PEE and aiming to promote physical activity, wellbeing and health. The specificity of the approach is based on the collaboration between teacher educators and practitioners at each step of the project, in line with the collaborative didactic engineering model (Goigoux, 2012; Sénéchal, 2016).

The selection of a sample of good practices implemented in FWB and/or other countries (Bonni et al., 2018) was based on evidence or field practice. In addition, the group of experts had also to test several projects in the specific context of the FWB' schools.

Five projects were analyzed : "Development of the playground", "Nutriathlon", "Oblomov: move, play, create!", "PAPS" (School Physical Activity Breaks), "Dare to save at school". The aim of the present study is to propose an overview of the data collected at that point and to prepare a SWOT analysis designed to help the practitioners to carefully weigh the pros and cons in deciding when and how to use the available resources. The latter are expected to be shared on a digital platform managed by the educational authorities.

## Human values and para-athletes

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Dr. Marina Salerno (Federal University of Mato Grosso do Sul), Dr. Ana Karla Soares (Federal University of Mato Grosso do Sul),  
Dr. Paulo Araújo (State University of Campinas)*

**Background and purpose:** Human values are orientation criteria, which are used as a guideline to express individual needs. Those values are important to understand different individual aspects, such as life satisfaction (which involves a subjective and individual concept about several aspects of life), and vitality, which encompasses a positive aspect which indicates the experience of being alive. In the scope of the Brazilian para-sport, even with its highlighted international position, little has been investigated on those factors. Towards that, this research aims to analyze the correlation between human values, life satisfaction, and vitality on para-athletes in the city of Campo Grande, Mato Grosso do Sul, Brazil. **Methods:** Twenty four para-athletes from the city of Campo Grande participated, most of them males (83.33%), at ages averaging to 34 years old who represented the area in the Brazilian Paralympic Committee's official competitions. They answered the Questionnaire of Basic Values, Life Satisfaction Scale, Subjective Vitality Scale, and demographic questions before or after their training. **Results and conclusions:** The results indicated that, although life satisfaction did not show statistically significant correlation to the study variables, vitality correlated positively and significantly to the experimentation values ( $\rho = 0.46$ ), corroborating the relevance of understanding the relation between the athletes' value priorities and their vitality levels, specifically, the more importance they assign to experimentation values (e.g. feeling and pleasure), the higher their vitality levels are.



## Research initiative together with independent boarding schools

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mrs. Lise Maria Elkrog-Hansen (University College Lillebaelt/The University of Southern Denmark (Research and Innovation Centre for Human Movement and Learning, FIIBL)), Dr. Thomas Skovgaard (The University of Southern Denmark/Research and Innovation Centre for Human Movement and Learning, FIIBL), Dr. Søren Smedegaard (University College Lillebaelt/The University of Southern Denmark/Research and Innovation Centre for Human Movement and Learning, FIIBL)*

### **Background and purpose**

This presentation outlines a research initiative together with three continuation schools (independent boarding school for lower secondary students) which focus on sport and physical activity. Surprisingly, these particular types of schools, that attract a considerable amount of Danish youth, have not been researched much. This research initiative aims to strengthen the knowledge of continuation schools – in particular in relation to sport as both a formal educational component and as a bridge to engage young people in exploring universally human values. The research initiative addresses questions like: Why is it that students often experience the time they spend at continuation schools as very unique? Is it possible that continuation schools have distinctive potentials regarding personal development and well-being? And if so, how can these distinctive features be studied systematically?

### **Methods**

Seven sub-studies (conducted with a total of 11 graduate students from the University of Southern Denmark), related to the questions mentioned above, are conducted. The methodical approaches are mainly qualitative, including different types of interviews (individual, group and focus group) and observations. The main author of this abstract will conduct a comparative analysis across empirical findings from the seven sub-studies. The overall research initiative includes a systematic mapping of relevant literature and a survey conducted among all the current students (approx. 1300) at the three schools. The purpose of the latter is to collect quantitative data on background issues and themes of relevance for the overall research initiative.

### **Results**

The research initiative will provide novel knowledge on the special qualities and cultures of continuation schools as both formal educational institutions and incubators for broad-based development of young people.

### **Conclusions**

The research initiative contributes to updated insights into a particular type of school that, based on a rich history, has been gaining ground in Denmark

## Evidence of Pupils' Desire to Have Fun and Feel Togetherness in Physical Education Lessons

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mrs. Nelli Lyyra (University of Jyväskylä), Mrs. Pilvikki Heikinaro-johansson (University of Jyväskylä)*

The goals of physical education, as set out in national curriculum guidelines in Finland (National Board of Education 2014), have rarely been interrogated from the perspectives of the pupils for whom they were developed. The purpose of this study was to examine the value pupils place on different curricular goals and teacher competences in physical education in Finland.

Data was collected using a modified version of the Curricular Goals in Physical Education Inventory (Lyyra 2013; Lyyra et al. 2015), designed to measure the level of importance ascribed by pupils to various teacher competences and curricular goals. For each item on the Likert Inventory, pupils answered the question: How important do you perceive the following aspect of physical education to be? Survey data was collected from 1601 pupils (839 girls, 762 boys) from grades 5 (n=494), 7 (n=506) and 9 (n=601) across 101 comprehensive schools. This study is part of a national research project, LIITU, which follows trends in the physical activity of children and adolescents (Kokko et al. 2014; 2019). Data was analyzed using descriptive statistics and curricular goal factors are based on a validation study (Lyyra 2013; Lyyra et al. 2015).

In general, girls had more positive perspectives on physical education compared to boys ( $p<.001$ ) and pupils in higher grades demonstrated more critical perspectives ( $p<.001$ ). The curricular area deemed most importance related to socioemotional goals, with 78% of pupils assessing this area as important/very important. Pupils also valued physical education for its health benefits (68%). All students being treated equally (76%) and teachers being supportive (74%) were also highly valued.

These findings may be helpful in informing future pedagogical decisions made by physical education teachers. Understanding what curricular objectives pupils deem important is key to assessing and identifying factors that influence their engagement and learning in physical education.

## Social and Emotional Learning through TPSR in China

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Dr. Lingshu Li (Shanghai International Studies University), Dr. Tanjian Liang (Central Washington University), Dr. Si Man Lei (University of Macau), Dr. Erica Pratt (SUNY CORTLAND)*

### **Background and Purpose:**

Participation in sports and physical activity has been associated with contributing to social and emotional learning (Gould & Carson, 2008). In mainland China, physical education (PE) curriculum emphasizes primarily on skill performance more than affective domain learning (Ji, 2015). Several researchers have explored moral education through the lens of TPSR (Hellison & Doolittle, 2007; Jung & Wright, 2012; Xiang, 2016). However, few studies have explored how TPSR contributed to students' social and emotional learning (SEL) within mainland China. Therefore, the purpose of this study was to reveal how implementation of TPSR enhanced Chinese students' social and emotional learning.

### **Methods:**

Participants were 27 high school students and two secondary PE teachers. Data sources included: TPSR Implementation Checklist (Gordon, 2016), informal conversational interviews (Patton, 2015), semi-structured interviews. Data were analyzed using open and axial coding (Corbin & Strauss, 2008). Trustworthiness was established through data triangulation, negative case analysis, peer review, and reflective journals.

### **Results:**

Two themes were evident in regard to implementation of TPSR for students' SEL: 1) Guideposts and roadblocks of implementation TPSR and 2) students' care for others. The guideposts and roadblocks indicated how TPSR worked in Chinese context. Students' care for others included two levels: caring for peers and caring for family members.

**Conclusions and Implications:** Results suggested that secondary school teachers illustrated the positive behaviors with a purpose of promoting TPSR model for students' SEL. It suggested that teachers tried to be relational with students in class through the use of TPSR model (Hellison, 2011). Students exhibited care for others in school and beyond. Future research is necessary for exploring Chinese teachers' perceptions about TPSR and SEL.

# Initial Validation of the Teaching Sustainability Questionnaire

Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

*Dr. Douglas Ellison (Kent State University), Dr. Ben D. Kern (University of Louisiana at Lafayette), Mr. Chad Killian (Georgia State University)*

**Background and Purpose:** Little is known about factors influencing physical education (PE) teachers' intentions to remain teaching in high-poverty schools. The purpose of this study was to establish initial validity of an instrument designed to measure psychological constructs associated with PE teacher's intent to remain teaching in high-poverty schools and examine the extent to which they predict teaching sustainability.

**Method:** A 22-item Teaching Sustainability Questionnaire (TSQ) was adapted from the Work-related Acceptance and Action Questionnaire II, Connor-Davidson Resiliency Scale 10, and Life Engagement Test to measure psychological flexibility (PF), resiliency (RES), and sense of purpose (SOP) among physical educators. Four items were developed to gauge teachers' intent to remain teaching (IRT). We hypothesized that the adapted items accurately measure PF, RES, and SOP and would predict IRT. A total of 540 physical education teachers from high-poverty US schools completed the TSQ and a demographic survey via electronic questionnaire.

**Analysis/Results:** Exploratory factor analysis revealed a 3-factor structure (PF [ $\lambda=8.8$ ,  $\alpha=.89$ ], RES [ $\lambda=2.5$ ,  $\alpha=.87$ ], SOP [ $\lambda=1.6$ ,  $\alpha=.74$ ]), along with a fourth factor related to IRT ( $\lambda=1.4$ ,  $\alpha=.73$ ). Confirmatory factor analysis and structural equation modeling affirmed factor structure offered evidence of convergent and discriminant validity (AVE values  $\geq .37$ , CR  $\geq .8$ ). Overall, the model was a good fit for the data ( $\chi^2(293)=710.57$ ,  $p<.001$ , SRMR=.05, RMSEA=.06, CFI=.92, TLI=.91), and changes in PF ( $\beta=.08$ ,  $SE=.13$ ), RES ( $\beta=.26$ ,  $SE=.26$ ), and SOP ( $\beta=.49$ ,  $SE=.13$ ) successfully predicted changes in IRT.

**Conclusions:** Collectively, the TSQ is an effective measure of teaching sustainability. SOP and RES are considerably stronger predictors of IRT than PF, suggesting a potential mediator/moderator relationship. The TSQ may assist future research in high-poverty contexts to better understand individual teacher characteristics that promote teaching sustainability.

## Personal trainer's health advice to clients in the fitness gym

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Dr. Linn Håman (1) School of Health and Welfare, Halmstad University), Dr. Hillevi Prell (2) Department of Food and Nutrition, and Sport Science, University of Gothenburg), Prof. Eva-Carin Lindgren (1) School of Health and Welfare, Halmstad University and 2) Department of Food and Nutrition, and Sport Science, University of Gothenburg)*

Fitness gyms have become popular places for physical activity. Several individuals exercise at gyms and an increasing number hire a personal trainer (PT). PTs have an important role in offering advice and exercise programs as well as detecting unhealthy behaviors among their clients. Norms regarding exercise habits in the gyms appear to be strongly gendered, which may influence PTs' advice. The purpose of this presentation is to describe PTs' health advice to clients. In total, 19 PTs, nine women and ten men, aged 23 – 47 years were recruited through purposive sampling. An explorative design was employed and seven focus group discussions were carried out. These were analyzed using a qualitative content analysis guided by a gender perspective. The findings suggest that PTs had a *gendered health advice* approach towards women regarding exercise and diet. The PTs gave reactive health advice especially to women showing unhealthy exercise and eating behaviors in order to correct these unhealthy behaviors. The specific advice involved a) eating more and exercising less, b) focusing on performance rather than appearance and c) avoiding heavy weight lifting. However, the PTs avoided to advise men showing similar unhealthy training and eating behaviors. The PTs also had a *transgressive health advice* approach. They advised both women and men to a) adopt a relaxed attitude to exercise and diet, b) to prioritize and rationalize their exercise and diet and c) to eat a natural diet. The gendered health advice approach might give women and men different opportunities to improve their physical fitness, health and well-being. Men with unhealthy behaviors might not be supported by the PTs, which adversely can affect men's health. We recommend that gym managers and PT-educators increase their awareness about the importance of providing equal opportunities for women and men to improve their physical fitness and health.

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## Physical Activity Levels of Arab American Children in Urban PE classrooms

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. Hayley McKown (University of Hawaii), Dr. Erin Centeio (University of Hawaii), Dr. Jeanne Barcelona (Wayne State University),  
Ms. Christine Pedder (Wayne State University)*

**Background/Purpose:** Arab Americans account for almost 3.7 million people in the United States (Arab American Institute, 2014). However, limited health data is available on youth and adult populations. In order to better understand the health behaviors of Arab Americans and aid in the push for healthy lifestyles in children, more research should be conducted. Therefore, the purpose of this study is to evaluate Arab American children's MVPA during PE class and to understand the relationship between MVPA, lesson context, and teacher involvement.

**Methods:** System for Observing Fitness Instruction Time (SOFIT) was used to assess activity levels, lesson context, and teacher involvement (McKenzie, 2015) during PE class. A total of 25 PE classes in one urban, primarily Arab American, district, were observed in grades 3-7, involving 13 PE teachers. Data collectors were trained before conducting observations. Data were downloaded from the iSOFIT app and analyzed using SPSS (v25).

**Results:** Three separate MANCOVA's were run to better understand the effect grade level has on physical activity minutes, lesson context, and teacher involvement while controlling for teacher, total lesson minutes, and type of activity. In general results showed that students were not meeting suggested American PA guidelines during PE class ( $M_{MVPA3rdgrade}=25.67min$ ,  $M_{MVPA4thgrade}=14.22min$ ,  $M_{MVPA6thgrade}=12.78min$ ,  $M_{MVPA7thgrade}=19.38min$ ). Overall, grade did not have a significant effect on level of PA ( $p=.09$ ), but was significantly different among lesson context (knowledge,  $p=.006$ ; management,  $p=.005$ ; other,  $p=.004$ ), and teacher involvement (demonstrates fitness,  $p=.002$ ; instructs generally,  $p=.016$ ).

**Conclusions:** The results show that youth were not meeting recommended amounts of daily PA during PE class. Although MVPA was different, grade did not have a significant effect on youth PA levels. Lesson context and teacher involvement were significantly different by grade. More research should be conducted in PE and beyond, to better understand Arab American youth PA levels and health behaviors.

## Understanding NGO context and Sport for development and peace organization by using annual report through Actantial Model analysis: The case of Bel Avenir, Madagascar

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Prof. Tegwen Gadais (University of Quebec in Montreal), Mrs. Laurie Decarpentrie (UQAM), Mrs. Marie-Belle Ayoub (UQAM), Mrs. Mariann Bardocz-bencsik (University of Physical Education, Budapest,)*

**Background and purpose:** More research on Sport for development and peace (SDP) organizations is needed to better understand how these promote human development. Researchers call for realistic methods to investigate the SDP field, which is often in unsecure and unstable environments with restricted access. The purpose of this study was to describe and analyze the situation of a non-governmental organization (NGO), Bel Avenir, from a distance by using the Actantial Model method analysis. **Methods:** First, we applied the Actantial Model to four annual reports through a discourse analysis. Second, we went to the field to validate those findings. We took notes and conducted interviews (N=8) with key actors of the NGO. **Results:** Findings revealed that the Actantial model is a good tool to analyze the NGO from a distance and to better understand the context, the actors and their relationships within the NGO. Analyses highlighted that Bel Avenir provides various services such as education and social inclusion for the vulnerable population based in Toliara region. However, fieldwork helped to better articulate those elements and to reinforce their characteristics. **Conclusions and implications:** The Actantial model appears to be a good instrument for the first steps of analysis of an NGO, but some elements are still missing to have a clear and complete update of the SDP situation.

## The Study on Development of Decision Making Test for Ball Games; Focusing on University Physical Education Lessons for training elementary school teachers

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Mr. Hayato Mikami (Hiroshima University), Dr. Seiichiro Kihara (Hiroshima University)*

**Background and Purpose:**Currently, there have been studies on ball movement decision making in physical education classrooms. “Off the ball movement” including decision making is also detailed in the Education Guideline for elementary school in Japan. However, it is challenging to assess whether learners improved their ability in decision making. Therefore, the purpose of this study is to develop a test for evaluating the learner’s ability on decision making.

**Methods:**The flag football was carefully selected as a teaching material due to its relatively easy to use in games decision making. In this study, a decision making test was conducted for students in the teacher training course for elementary school teachers who learned the flag football lesson. In this test, the participants were presented with a pictorial image from the defensive viewpoint concerning a scene of 3 on 3 flag football game. Then, the respondents chose what action should be taken in each scene from the answers as the defending player. The answers to this test were judged based on the established principle of defense in the flag football. In the analysis, the students were divided into two groups the ball movement novices’ group (Group A) and the ball movement experts’ group (Group B), and the result from both groups were compared.

**Results:**The result shows Group A tends to follow the established principle of defense while Group B tend to select a more efficient defensive strategy from their experiences.

**Conclusions:**From these findings, it is thought that by conducting this test, the instructor can grasp what knowledge the learner uses in making decisions in the game. I think that learner’s decision making can be evaluated based on the knowledge revealed by the test.



## Perceived health resources related to physical activity among Brazilian adults

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. Heidi Jancer Ferreira (Federal Institute of South of Minas Gerais; Postgraduate Program in Movement Sciences - São Paulo State University (UNESP)), Prof. David Kirk (University of Strathclyde), Dr. Alexandre Drigo (São Paulo State University - UNESP)*

### **Background/purpose:**

Physical activity (PA) is a key way to improve health worldwide. PA might be considered as a resource that helps people to stay healthy. However, further understanding of how people use PA to develop their health is needed. To explain how people stay healthy, Antonovsky (1979) proposed the salutogenic model, which includes the sense of coherence concept (SOC) and its constitutive elements of comprehensibility, meaningfulness and manageability. Antonovsky's framework suggests that material, cognitive, emotional, social, behavioural, and cultural factors experienced by individuals constitute health resources (McCuaig & Quennerstedt, 2016; Ericson et al., 2017), which people draw upon to manage stress and improve health. Adopting this perspective, the purpose of the study was to identify what health resources adults connected with PA as contributors to their health.

### **Methods:**

Data were generated through the condensed fieldwork method (Stenhouse, 1984) with three-day visits to health-promoting programmes. Theoretical sampling guided the selection of four programmes, located in four Brazilian cities. Participants included four PA instructors (1 male; 3 females) and 34 adults aged 45-79 years (3 males; 31 females). Data sources included interviews with instructors, group interviews with adults, and observational fieldnotes of 31 PA sessions. Data were analysed through constant comparison, using initial and focused coding to develop themes (Charmaz, 2006).

### **Results:**

Results indicated the creation of a community of movers to be a health resource. Five associated subthemes were identified: sense of belonging, positive experience, friendship, attachment, and social support.

### **Conclusions/implications:**

PA programmes provided adults with experiences of socialisation, interaction, caring and coping that helped them to better understand themselves and the situation they were in (comprehensibility), to be motivated to take care of themselves (meaningfulness), and to develop the capacity to do so (manageability). Thus, PA programmes can be thought of as a resource that helped maintain adults' health by strengthening their SOC through the development of social and emotional skills, and by creating a community of movers, that later of which might be considered a priority for health-promoting initiatives for middle-aged and older adults.

\*Acknowledgement: Federal Institute of Education, Science and Technology of South of Minas Gerais (IFSULDEMINAS). This study was financed in part by the *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Brasil* (CAPES) - Finance Code 001.

## Analyzing Attitude toward Physical Activity and Stages of Change among College Freshman

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Dr. Anne Gibbone (Adelphi University), Dr. Kevin Mercier (Adelphi University), Dr. Emilia Zarco (Adelphi University)*

Physical activity (PA) significantly declines in early adulthood and though PA interventions for college students are moderately successful, several implementation challenges remain. Both The Transtheoretical Model (TTM) of Stages of Change (SOC) and attitudinal research are independently used to examine PA engagement. Since attitude relates to individuals' PA decisions, identifying relationships between a college freshmans' SOC and their attitude can influence interventions aimed to improve PA levels. Study objectives include; 1) demonstrate validity and reliability of an established attitude instrument for the current population and; 2) identify relationships between participants' SOC and attitude towards PA.

College freshman (N=221) from an eastern United States private university were administered two survey instruments voluntarily: 1) ACSM Stages of Change Questionnaire and 2) Negative Attitudes Toward Physical Activity Scale in accordance with IRB protocols. Survey data were analyzed using Excel and SPSS.

Exploratory factor analysis (EFA) and Principal component analysis (PCA), with consideration of factor loadings, screen plot data, eigenvalues, and reliability coefficients, suggested an adequate fit of the data to a two-factor model (negative attitude and positive attitude) using a revised instrument (9 of 14 original items). Chi Square analysis indicated negative attitudes significantly correlated with SOC,  $\chi^2(4)=50.01$ ,  $p<.001$ . Less active stages (pre-contemplative and contemplative) were related to higher negative attitudes toward PA while more active stages (active and maintenance) related to lower negative attitudes. Positive attitudes weren't significantly correlated to SOC.

Though valid and reliable scores were attained, further instrument development, with improved factor loadings and reliability coefficients, is recommended. Since negative attitudes were correlated with less active stages and are associated with lack of enjoyment, interventions with this population should align with attitude theory and focus on improving affect toward PA. Understanding attitudes and their relationships with SOC is important to promoting PA among young adults.

## Physical Factors do not Predict Cognitive Control and Academic Performance Changes in High School Students: The Adolescent Students Academic Performance Longitudinal Study (ASAP)

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Friday, 21st June - 12:15: (Nexus Lobby) - Poster Presentation

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*Ms. Marie-Maude Dubuc (Université du Québec à Montréal (UQÀM)), Prof. Mylène Aubertin-leheudre (Université du Québec à Montréal (UQÀM)), Prof. Antony Karelis (Université du Québec à Montréal (UQÀM))*

Physical fitness and physical activity levels have been shown to be consistently associated with cognitive control and academic performance in elementary students. However, few studies have examined this relationship in high school students using a longitudinal model. To address this issue, 205 students in grades 7, 8 and 9 (mean age:  $13.1 \pm 1.0$  years) from a single French-Canadian high school located in Montreal, Canada, completed a 3-year prospective study. Body composition (waist circumference, body mass index (BMI), body fat percentage (BFP)), physical fitness (cardiorespiratory fitness (CRF), muscle strength and muscle endurance), physical activity habits (type, duration and intensity) as well as cognitive control (inhibitory control and working memory) and academic performance (grades in science, mathematics, language and the overall average) were assessed every year during the three-year study. Repeated measures analysis of variance, Pearson's partial correlations, Chi-Square independence tests as well as linear hierarchical regression analyses were performed. Our results showed that CRF, muscle endurance and muscle strength seem to be positively associated with academic performance (e.g. mathematics and overall average) in female students. Furthermore, better CRF, muscle endurance, muscle strength and body composition (e.g. BMI and BFP) appear to be positively related with inhibitory control and working memory. In male students, CRF, muscle endurance and BFP seem to be correlated with academic performance (e.g. mathematics, language and overall average), whereas muscle strength and BFP appear to be associated with working memory. However, all these associations were weak and had a poor ability to predict variations in cognitive control or academic performance indices during the 3-year period. In conclusion, results of the present study indicate that physical-related factors were not able to form an effective predicting model to explain the changes in cognitive control and academic performance of high school students during a 3-year period. This study may help guide educators in the development of effective intervention programs for both male and female high school students.

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## Fostering adolescents fundamental movement skills through meaningful engagement with student voice.

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Friday, 21st June - 12:15: (Nexus Lobby) - Oral Paper

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*Mr. Cathal Óg O'Sullivan (University of Limerick), Dr. Melissa Parker (University of Limerick), Dr. Tom Comyns (University of Limerick)*

**Purpose:** Physical education programmes are now the most effective way to develop student's fundamental movement skills (FMS) (McKenzie, 2007) particularly when explicit connections are made between the content and students favoured physical activity (PA) (Parker, MacPhail, O'Sullivan, Ní Chróinín, & McEvoy, 2018). The positive impact of engaging with student voice has been documented when creating programs to enhance female adolescents' PA (Enright & O'Sullivan, 2013) and FMS (O'Sullivan, Parker & Comyns 2019). Fundamental movement skills are considered the building blocks for movement, upon which more complex and sport specific skills may be added to for physical activities and daily living (Gallahue & Ozmun, 2006). Children and adolescents, who have not achieved mastery across a range of FMS, are noticeably less likely to engage in PA or organised sport (Stodden *et al.*, 2008). Framed in self-determination theory (Deci & Ryan, 2000), this study investigated the effect of engaging with and integrating student voice when creating a program to develop adolescent males FMS.

**Methods:** Participants included 54 males (mean age  $12.70 \pm 0.51$ ) attending an inner-city secondary school. A six-week FMS programme based on student experiences was implemented during 1 x 80-minute physical education class per week. Qualitative data consisted of pre-and post-focus group interviews, participant drawings, and researcher field notes. Quantitative data included anthropometric measurements, pre, post and retention test of five FMS (running, catching, throwing, kicking and vertical jump).

**Results:** Detailed analysis of qualitative data resulted in three themes, primary school physical education: inadequate experiences, unique opinions of the learning process and connecting content to lived experiences. Quantitative data analysis is ongoing.

**Conclusion:** We plan to discuss how the findings, advocate integrating student voice when developing a program intended to foster adolescents' FMS. The results support the significance of listening to students to make learning in PE meaningful.

# **Roundtable 4**

## A Guided Discovery to Transferring Responsibility in Young Children

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Friday, 21st June - 12:30: (Nexus 126) - Roundtable discussion

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*Dr. Robin Dunn (Saint Mary's College of California)*

### Background and Purpose

Researchers have indicated that there should be clear, explicit approaches for debriefing experiences and facilitating transfer of the learning objectives set forth in individual programs (Bean et al., 2016; Gass, 1990; Sutherland, 2012). For an individual program, such as the Teaching Personal and Social Responsibility (TPSR), Hellison (2011) noted that transferring responsibility values to areas beyond the gym was the most important aspect of a responsibility-based program. However, the issue of transfer has been addressed on a limited basis in a TPSR structured program. Therefore, this presentation aims to address the issue of transfer, particularly the conditions and strategies used to promote transfer.

### Method

Twelve elementary-aged students were selected through purposive sampling to participate in a responsibility-based program using cooperative physical activities. Lesson plans were implemented for 60 minutes, twice per week over an 8-week period. After the lesson, directed discussions with participants were held for 15-20 minutes of the allotted 60 minutes, on responsibility and transference of responsible behaviors beyond the planned activities. Participants were asked relevant questions about their behavior during activities, challenged to consider how their behaviors demonstrated responsibility and impacted others not only within the program, but beyond it.

### Results

Findings indicated that students better understood their responsible behaviors and were able to demonstrate them during the programmed lessons and in their regular after school program on a limited basis.

### Conclusion

Transfer is challenging to facilitate. It takes strategic planning, by developing open-ended, fluid questions, setting objectives for the direction of the lesson, and creating flow for post-activity discussions. This study allowed for a student-centered discussion with guided discovery to process what occurred in the lesson and connect participants' experiences to other areas in their lives. Thus, having a program that involves guided discovery is necessary in transferring responsible behaviors to areas outside of a physical activity program. In the future, however, implementing a six-month program may enhance transfer, as it will provide participants with more opportunities to engage in discussion and make connections between the program and life.

## The 4 C's to a Physically Active School System (PASS)

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Friday, 21st June - 12:45: (Nexus 126) - Roundtable discussion

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*Dr. Marybeth Fede (Southern Connecticut State University/PASS), Prof. Carol Ciotto (Central Connecticut State University/PASS)*

### Abstract

The purpose of this project is to provide compelling information, along with effective strategies in order to connect, communicate, cooperate, and collaborate and understand the role physical activity plays in education. It is the intent of these authors to help educators understand and be comfortable using the powerful tool of movement to enhance students' physical, emotional, and cognitive fitness. Comprehensive school health and physical education programs are a good start, but we now know from experience they aren't enough on their own. Physically active classrooms, before and after school programs, community outreach programs, and parks and recreation programs have to all work together to provide optimum experiences for children and adults to participate in physical activities.

### Background

PASS (Physically Active School Systems), is a program by which school/districts utilize opportunities for school-based physical activity to enhance overall fitness and cognition. This inter-disciplinary approach allows educators to connect content areas with common core standards, 21st century skills, social/emotional learning skills, and state/national standards through movement.

### Purpose

PASS provides educators with resources and strategies necessary to incorporate physical activity throughout the school day to enhance brain function, academic performance, focus and attention, and time on task. PASS also fosters social and emotional learning skills helping to improve psychological well-being, self-esteem and self-efficacy.

### Methods

PASS, a comprehensive, system-wide initiative utilizes a seven phase framework that outlines how school districts can successfully create opportunities for school-based physical activity embedded throughout the school day with quality physical education taught by a certified physical educator at the core.

### Analysis/Results

PASS is in 57 CT school districts, in Physical Education Teacher Education (PETE) programs at Central CT State University (CCSU) and Southern CT State University (SCSU), and is part of the Center of Excellence on Social-Emotional Learning at CCSU. Additionally, legislative Public Act 16-132: An Act Establishing a Red Ribbon PASS Program was developed by Carol Ciotto and Marybeth Fede to honor schools providing opportunities for all students to be physically active throughout the school day. This legislative bill passed by legislators, and signed by Connecticut Governor, Dannel Malloy will be rolled out in schools in January 2019.

### Conclusion

Although we have made great strides in the implementation of PASS, we are a work in progress and continue to receive request for additional PASS training and implementation. Eventually, the goal is for PASS to be in all 170 school districts, making Connecticut a Physically Active State.





**Abstract**

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# **Symposium 7**

# Innovative approaches to PETE curricula design and implementation in Ireland

Friday, 21st June - 13:45: (Nexus 239) - Symposium

*Dr. Joao Costa (University College Cork), Prof. Ann MacPhail (University of Limerick), Prof. Sarahjane Belton (Dublin City University), Dr. Wesley O'Brien (University College Cork), Dr. Manolis Adamakis (University College Cork), Dr. Fiona Chambers (University College Cork), Dr. Deborah Tannehill (University of Limerick), Ms. Gwen Weeldenburg (Fontys School of Sport Studies)*

## Symposium Abstract

**Background:** In the Irish context, the post-primary Physical Education (PE) curriculum is undergoing profound changes with systemic implications across all stakeholders and types of educational institutions, from which the three Higher Education PE Teacher Education (PETE) providers are not excluded. Increased complexity is added due to changes in the specific PE teacher qualification requirements. Embedding such constraints to update PETE curricula, while aiming towards authenticity and meaningfulness, requires consistent and coherent workplace learning (MacPhail & Tannehill, 2012) and the imperative of strong and genuine partnerships with placement schools as a two-way communicative process of PE curriculum development (Onofre, Martins, Rodrigues, & Costa, 2018).

**Purpose:** This symposium aims to present institutional innovations in each of the three main Irish PETE programmes, to be discussed by a Dutch PETE programme-design leader.

**Main points:** Three presentations will be given focused as follows: 1) themes-based curriculum design, 2) socioecological needs-based curriculum design, and 3) research-informed professional practice. Following the presentations, a discussant will offer an external perspective and raise some critical questions to feed the symposium discussion.

**Relevance for conference:** This communication is intrinsically aligned to the subtheme of the “professional preparation for Health and Physical Education, Sport, and Physical Activity” as sharing the design and implementation of contemporary PETE curricula that take on the challenge of preparing PE teachers for a diverse society.

**Conclusions and implications:** In sharing three innovation examples of PETE curricula, this symposium provides insights and questions in embracing systemic change within the University institutional context aligned to current evidence and research pathways to monitor and sustain such changes. Implications focus on the PETE curriculum design processes aligned to the PE curriculum, principles of school-university partnerships, and international concurrent qualification accreditation.

**Paper 1 Title:** Designing a themes-based PETE curriculum within a Connected Curriculum Academic Strategy

## Abstract

**Background:** The recent adoption in this institution of a new Academic Strategy informed by the Connected Curriculum for Higher Education framework (Fung, 2017), requests divergent and innovative approaches to curriculum-design with strong links to placement sites and structures. One particular challenge in the PETE preparation is the readiness of PETE students to design an instructionally aligned curriculum (MacPhail, Tannehill, & Goc Karp, 2013). Enacting a connected curriculum approach in this PETE programme unlocks the need for a continuous engagement with placement sites from and to where PETE students learning can be meaningfully and authentically driven to develop the instructional alignment competence.

**Purpose:** We critically describe the planning and preparation of a themes-based approach to the PETE curriculum (Slingerland & Weeldenburg, 2018). The theme is on Instructional Alignment for the Examinable PE Curriculum in Ireland.

**Main points:** The communication will highlight foregrounding principles of: 1) Contextual Coherence; 2) Institutional Coherence; 3) PETE Programme Coherence; and 4) Professional Coherence for one instructional alignment theme including four modules: 1) Sport Psychology, 2) Coaching Placement, 3) Exercise Physiology, and 4) Curriculum Design.

**Conclusions and implications:** We conclude with the challenges, strengths and opportunities of a themes-based PETE curriculum to connect PETE and in-service practice.

**Paper 2 Title:** Designing a PETE programme to meet the needs of the learner, the curricula and society in a socioecological perspective

#### **Abstract**

**Background:** In recent years, Ireland implemented a significant shift in the nature, focus and intention of physical education (PE) at post-primary level, moving from a subject area (NCCA, 2003) to a now recognised core-content area within a broader programme of Wellbeing (NCCA, 2017). Additionally, PE is now, for the first time in Ireland, an ‘examinable subject’ at upper post-primary level, (NCCA, 2018) creating a circumstance where both status and accountability have increased in equal measure for the PE profession. Globally, this new PE curriculum requests the understanding and use of socioecological frameworks of participation in physical activity and sports.

**Purpose:** We discuss the circumstances surrounding the re-conceptualisation of our PETE programme, and discuss potential pathways towards successfully developing a socioecologically relevant programme that allows student-teachers to meet the changing needs of Irish youth in terms of PE.

**Main points:** The values, contexts and needs of society, the education system and our students are important considerations in deciding on the structure and content of PETE programmes, and building sufficient flexibility into such programmes to allow for these ever changing needs is essential.

**Conclusions and implications:** An overview of a potential framework for the structure of such a programme will be briefed.

**Paper 3 Title:** Encouraging pre-service physical education teachers to apply research to practice

#### **Abstract**

**Background:** The teacher as professional, reflective practitioner and researcher is a mandatory element of all initial teacher education programmes in Ireland, with provision for the development of pre-service teachers (PSTs) as researchers and lifelong learners (Teaching Council, 2017).

**Purpose:** To assist PSTs to access pertinent research to support their ‘learning about’ and for their ‘teaching of’ physical education in post primary school contexts and consider how reading research can be applied immediately in the planning priorities for school placement.

**Main points:** Based on PSTs’ reading of selected research articles and discussions of relevant topics as an early career teacher, PSTs develop their own strategy on how best to use this research analysis process. The process is intended to assist PSTs in their planning decisions, selecting their teaching and assessment practices and increase their understanding of physical education and the nature of student learning in physical education.

**Conclusions and implications:** While research findings do not provide assurance that something will always occur, in all settings and with all students, they can provide insight into how things might be adapted or revised to improve practice or learning.

# **Symposium 10**

## The A,B,Cs of Physical Activity, Play and Motor Learning

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Friday, 21st June - 13:45: (Nexus 237) - Symposium

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*Dr. Kristy Howells (Canterbury Christ Church University), Dr. Arja Sääkslahti (University of Jyväskylä), Prof. Boris Jidovtseff (University of Liege), Prof. Ingunn Fjørtoft (University of South Eastern Norway)*

A substantial amount of international research has documented children's need for explorative, experiential and challenging physical play. Through versatile and all-round varieties of play forms and play environments children will develop basic movement skills and learn how to master their body in different and challenging situations. Children's play is motivated through curiosity and fantasy of exploring the environment and this allows them to master their own bodies and learn to move in a variety of different ways.

This symposium will consider how the abilities of: agility, balance and coordination ('the A,B,Cs') are stimulated and developed through different and open-ended affordances of play within four different European countries. The purpose of this is to share how the same early movement abilities (A,B,Cs), are developed according to context, culture and environment. The four countries have been chosen as their natural or adapted environments are varied, but they are all used to enhance and help the children to explore, engage in movement that develop their A,B,Cs.

Different kind of A,B,C's will be demonstrated: Finland through focusing on the use of snow and ice. Belgium through focusing on the use of water and aquatic activities, using the specific CEReKi approach. Norway through focusing on the use of the woods and forest environments and England through the use of beach, sand and indoor environments. The use of tools and equipment to help support the children's development will be examined as well as the role of the teacher to help aid the early movement skills within each different natural or adapted environment. Photography and illustrations will demonstrate how the A,B,C's are developed differently within each country.

### Paper one - Finnish perspective

The purpose of this presentation is to concretize affordances of Finnish nature during winter – ice and snow. Ice is fascinating slippery surface. It challenge children's balance and agility constantly, when they are moving or playing on the ice. Children need to activate all their neuro-muscular systems to coordinate their body limbs to keep their balance. Controlling their bodies in different postures while standing or moving helps motivate their play. Therefore, moving on the ice can be seen as playing with own body and trying to keep the balance.

Beautiful white snow is free mattress for children: children are attracted to jump, run, throw, dive, cave, lay, roll, spin and use their creativity and desire to make whatever they imagine to try. These physical activities are excellent stimulation for the movement. Moving in the snow slows down children's movements and they need to use more strength than without snow.

Nordic children are lucky to have attractive winter affordances, ice and snow to tempt them physically active play. Challenging surfaces and materials demand concentration, which is prerequisite for development of physical abilities and motor coordination. The seasonal variation with changing affordances may be one reason causing good motor competence of Nordic children.

### Paper two - Belgium's perspective

The aquatic environment is generally for children a source of pleasure and fulfillment. However, water presents physical characteristics for which the humans are not fundamentally constituted. The ability to move in the water is governed by different rules that the child must appropriate in a progressive way. For example the child has to move from the vertical position to the horizontal position in water. Propulsion uses more the upper limbs than

the lower limbs. Water resistance changes the speed of segmental movements and breath must be controlled. The aquatic environment should be discovered in a suitable, progressive and fun way. This is what is proposed with the CEReKi original water familiarization method developed in Belgium.

The purpose of this presentation is to illustrate how an original arrangement can stimulate the agility, balance and coordination (ABC's) of the child in the water through active play. Specially adapted equipment is introduced into the pool to provide a stimulating environment, allowing children to evolve according to their desire and level. This presentation will show how a synthetic fiber net, bars, floats, a metal cage or slides can be used to develop children's aquatic ABC's in an adapted and affording environment.

Paper three - Norwegian perspective

Children learn movements and gain bodily experiences by exploring different environments. Through bodily experiences, children explore details and quality of movements such as balance, coordination, speed, agility, force and endurance. Children develop perceptual-motor skills through natural spontaneous interaction with the environment. The materiality of the environment affords challenges and experiences that promote motor learning and the children respond by exploring, discovering and face the challenges by mastering perceptual motor skills in context with the environment.

This presentation will demonstrate how children's physical play is stimulated and developed through different and open-ended affordances of play

“How to encourage explorative and problem-solving play”

“How do landscapes promote motor learning and mastering of bodily competence?”

Approaches:

- \* Children's play and learning through experience will be demonstrated through a video of a natural play space

- \* Open-ended affordances of landscapes will be presented

Literature and case studies showing the contextual environment- child relationship in learning fundamental motor skills will be discussed. Multi-functional and challenging environments seem to have promotive effect on children's physical and explorative play and should therefore be encouraged as a pedagogical approach in motor learning.

Paper four - English perspective.

Nowhere within the UK is further than 70 miles (113 kilometers) from the coast, and England is made up of 2728 miles (4,422 km) of coastline. The coastline has a variety of natural textures from flat sandy dunes to steep white cliffs such as those found at Dover. The beach and coastline offers English children an almost Jurassic exploration, as it is the place that is full of beauty, history and fossils, with many schools having weekly or daily 'beach school' in which the children, learn, explore and play on the beach environment.

The photographs and illustrations provided in the paper will show how the abilities of agility, balance and coordination are developed through a variety of ways using the sand and beach environments. For example the fine and coarse sand are ideal for sensory touch development with children from very young age. Both the actual outdoor environments of the beach and rock pools as well as sand pits, sand boxes and water boxes within indoor settings are used to develop physical curiosity, through hiding objects that the children have to use fine motor skills to dig out, to use pincers to help develop their grasping, reaching and coordination skills.



# **Healthy Lifestyles and Wellbeing**

## Marketing healthy lifestyles to children: A wolf in sheep's clothing?

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Friday, 21st June - 13:45: (Nexus 275) - Oral Paper

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*Dr. Darren Powell (The University of Auckland)*

Global concerns about childhood obesity and the effects of marketing 'junk' food have created a new opportunity for the private sector: marketing healthy products and lifestyles to children. While there is a large body of literature examining the relationship between unhealthy food marketing and childhood obesity, relatively little is known about how the rapid turn to promoting healthy products (e.g. bottled water, McDonald's sliced apples) and healthy lifestyles (e.g. sport sponsorship, physical activity initiatives) shapes children's health knowledge, health practices, and health identities.

By using a critical ethnographic research approach alongside Foucault's notion of governmentality, I interrogate what those with the 'will to govern' officially wanted to happen, but also what actually happened when healthy marketing tactics met their intended targets – children. This project employed a child-centered approach where sixteen children (aged seven to nine years) from two schools acted as peer researchers, using wearable cameras to create visual images at diverse sites, including school, home, supermarkets, and sports clubs.

Here I critically examine the ways in which technologies of consumption (Miller & Rose, 1997) – including product placement, sponsorship, television campaigns, food packaging - attempted to govern children to be consumers of corporatized brands, products, and active lifestyles. Analyzing the empirical materials alongside the children provided insights into how children take up health messages in unpredictable, even unhealthy, ways. This includes the 'Coca-Colonization' of health: where 'other' ways of understanding or practicing health are created, maintained, or subjugated by contemporary marketing policies and practices.

Given the current trend for policymakers, scholars, and the public to support this recent shift to 'healthy' marketing, it is vital that further research is conducted that questions the assumption that marketing healthy products and active lifestyles to children is healthy or harmless.

# A Praxis Model of Digital Wellbeing for Physical Education

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Friday, 21st June - 14:27: (Nexus 275) - Oral Paper

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*Dr. Fiona Chambers (University College Cork), Dr. Rachel Sandford (Loughborough University), Dr. Orla Murphy (University College Cork), Ms. Anne Jones (St Colman's Community College Midleton Co Cork)*

## Background and Purpose

In a digital society, it is important for educators (including physical educators) to teach young people how to critically engage with their digital world. Technology acts as a social force, which shapes who we are, how we socialise, how we perceive reality and our agency (Floridi, 2015) both online and offline (Author, 2018). Pupils need to learn how to prioritise their digital wellbeing to: act safely/responsibly in digital environments; manage digital stress and workload; and balance digital with real-world interactions. There is a need for innovative pedagogies to meet the 'pace and level of learning for each student within the styles and forms of current youth culture' (Laurillard, 2013, p. xi).

## Methods

This three-year innovation project used a four-stage design thinking framework (Goligorsky, 2012) subsequently informed by the CREATE principles of research design with, for and by youth (Author et al, 2017). Data were gathered from a range of stakeholders: school principals (n = 30); teachers (n= 35), pupils (n = 660); CPD providers (n = 5). Data were analysed using a thematic, inductive form of grounded theory (Charmaz, 2006) and member-checked using a power-dotting exercise.

## Results

Findings led to the development, implementation and evaluation of a *Praxis Model of Digital Wellbeing*. The model harnessed two key elements of digital wellbeing digital fluency and values fluency (Author, 2016) aligned to the five EU Digital Competences (DigComp 2.0). PE teachers planned for learning through the *Learning Matrices for TPACK*(technological and pedagogical content knowledge), scaffolded by *Bloom's Digital Taxonomy* (Churches, 2009). Through this learners became *critical producers of knowledge* and gained a *critical sense of self in the digital world*.

## Conclusions and implications

The *Praxis Model of Digital Wellbeing* empowers PE teachers in the 21st-century classroom to educate global, connected citizens (Greene, 1995) and to enjoy eudaimonia (human thriving and flourishing) (Chatfield, 2012) in a digital society.

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# **Professional Development Programs and Policy**

## Policy actors and artefacts bridging the policy-practice nexus in PETE

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Friday, 21st June - 13:45: (Nexus 154) - Oral Paper

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*Dr. Karen Lambert (Monash University)*

This conference encourages us to think about how physical education teacher educators (PETE) might be able to build policy and practice bridges to/with/for others, such as pre-service and professional teachers. It invites us to cross over into other contexts in order to think about new ways to develop and deliver PETE courses as well as provide professional development in a variety of settings and in times of curriculum policy reform. This paper exemplifies this contextual bridge crossing process and its potential impacts in three ways. Firstly, it reports upon our work as ‘policy actors’ charged with making sense (interpreting) and then supporting (enacting) the new Australian Curriculum in Health and Physical Education (ACHPE) in our PETE classrooms and in schools. Secondly, it shares and analyses some artefacts to materialize as a result of our policy actor roles. In considering these insights we argue that teacher educators have the potential to influence PST and teachers’ thinking about and engagement with curriculum policy. Consequentially, some modest evidence of emergent impact of our policy artefacts on teachers, pre-service teachers, organisations and peers are provided. the paper seeks to provide insights around the performative potential and role of artefacts in documenting, producing and enabling policy enactments. Thus, as opposed to omitting the artefactual from policy enactment, we embrace it, arguing that artefacts can cross bridges to have performative potential and can play a key role in supporting curriculum policy enactment.

## Development of pre-service teacher' practical knowledge (DMs) during PETE

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Friday, 21st June - 14:06: (Nexus 154) - Oral Paper

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*Dr. Magnus Ferry (Umeå University, Department of Education, Umeå School of Sport Sciences), Dr. Peter Åström (Umeå University, Department of Education, Umeå School of Sport Sciences)*

During the professional socialization phase, i.e during PETE, pre-service teachers' develop their knowledge and beliefs about teaching and learning in physical education. This development is person specific, and influenced by, among other things individuals experience and background, and the content treated during teacher education. One specific part of this knowledge, which is seen as central for teachers, is the practical knowledge. A form of knowledge which Elbaz (1983) described as the "the complex sets of understanding which teachers actively use to shape and direct their teaching", and the term is used to describe how teachers integrate knowledge from different sources into conceptual frameworks that guide their actions in practice (Siedentop & Tannehill, 2000). The objective of this exploratory study was to analyze the development of pre-service teachers' practical knowledge, in this study expressed as didactical milestones (DM), during the professional socialization phase. The study draws on 39 pre-service teachers' written assignment during their first and third semester of physical education and health (PEH) method courses during PETE. The task of the assignment was to describe 10 individual DMs that will guide their future teaching in PEH. The analysis of the DMs was both qualitative with content analysis, and quantitative for comparisons of frequencies. The result shows that there is a significant difference in the distribution of DMs between the two occasions ( $p < .05$ ). During the first semester, a large part of the students DMs was pedagogical and focused on instructional strategies (HOW). During the third semester, there was a more even distribution between the different categories of instructions (HOW), the teacher role (WHO) and the students (WHOM). Given the important role the development of teacher knowledge has in PETE, this result indicates that the method courses has an influence on pre-service teachers' development of practical knowledge.

## Pre-service teachers' perceptions of assessment in Physical Education

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Friday, 21st June - 14:27: (Nexus 154) - Oral Paper

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*Dr. Henna Haapala (University of Jyväskylä)*

**Background/purpose:** The Finnish national core curriculum for basic education (Finnish National Board of Education, 2014) describes several key principles for assessment, such as ethical soundness and fairness, encouraging atmosphere, use of various assessment practices, and developing teaching practices. Teacher educators should take pre-service teachers' perceptions of assessment into account in order to develop their understanding of assessment (Otero & Nathan, 2008). The purpose of this study is to present preliminary results on pre-service teachers' perceptions of assessment in Physical Education (PE).

**Methods:** Data were collected in a nation-wide project on teachers' assessment competence in PE and Health Education. Pre-service teachers from the University of Jyväskylä (n=57, 54% women) with PE as minor or major subject (qualified to be subject teacher in PE) completed an online survey in Spring 2019. Data on perceptions of assessment purposes and teaching of PE assessment criteria and practices during studies were analysed with descriptive statistics.

**Results:** Most respondents agreed or totally agreed that assessment should be comparison between the goals set and the results accomplished (84%) and pupils' self-assessment should be included in grade formation (63%). Only half of the respondents (54%) considered that assessment criteria in PE was clarified well or very well during studies. Respondents were most familiarised (a lot or very much) with the following PE assessment practices during studies: group work (54%), learning diary (51%), self-assessment (51%), free observation (46%), peer assessment (46%), and measurements/tests (25%).

**Conclusions/implications:** Most pre-service teachers recognised that PE assessment should be linked to goal setting and pupil engagement, and a variety of assessment practices was introduced during studies. However, clarification of PE assessment criteria should be developed. These findings can support the development of PE teacher education to provide pre-service teachers with sufficient competence for PE assessment based on clear criteria, pupil engagement and continuity.



# **Sport Education and the Common Core in Secondary PE**

# Effects of Common Core State Standards on Student Physical Activity Rates and Student and Teacher Perceptions in Physical Education

Friday, 21st June - 13:45: (Nexus 155) - Oral Paper

*Dr. Clancy Seymour (Canisius College), Dr. Kiel Illg (Amherst Central School District), Dr. James Donnelly (Canisius College), Dr. Karl Kozlowski (Canisius College), Dr. Marcus Thomeer (Canisius College), Dr. Christopher Lopata (Canisius College)*

**Background and Purpose:** Empirical research examining the Common Core State Standards' (CCSS) impact on K-12 student physical activity (PA) rates in physical education (PE) class is limited. The purpose of this study was to examine the effect of CCSS instructional integration into PE lessons on PA rates of sixth grade students and student and teacher perceptions in a public K-12 school.

**Methods:** This study utilized a one-group within-subjects randomized design. Physical activity rates were compared between PE classes that integrated the CCSS (i.e., CC+) and PE classes that did not (i.e., CC-). Student and teacher perceptions of PE lessons alongside the feasibility of using an objective measure of PA intensity (accelerometer) were also studied.

**Results:** A linear mixed model analysis of percentage of time in moderate to vigorous physical activity produced a significant effect for condition (CC+ M=19.7%, SD=7.0; CC- M=33.1%, SD=10.4,  $F(1,24)=182.82$ ,  $p<.001$ ,  $d=1.46$  [95% CI:.88, 2.41]). The mixed model analysis of total steps per minute also produced a significant difference by condition (CC+ M=20.99, SD=9.46; CC- M=32.76, SD=9.46,  $F(1, 21)=133.45$ ,  $p<.001$ ,  $d=1.48$  [95% CI: .90, 2.15]). Linear mixed model analysis of student and teacher perceptions showed no significant differences on any of the six items, indicating general agreement. Intraclass correlations of the student and teacher reports were 0.70 for the CC- items, and 0.68 for the CC+ items, again demonstrating general agreement between students and the teacher. Students reported that the accelerometer was "easy to wear" (4.05 out of 5.0); the teacher report was slightly higher (4.83 out of 5.0).

**Conclusion and Implications:** Large effect sizes observed on both PA dependent measures suggest that CCSS integration tasks may have a significant negative impact on PA levels. Student- and teacher-reports did not differ between CC+ and CC- lessons on a number of lesson attributes and also suggested that the use of accelerometers to measure PA was acceptable.

## Coaching behavior as a function of game play ability in a High-School Sport Education season

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Friday, 21st June - 14:06: (Nexus 155) - Oral Paper

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*Prof. Peter Iserbyt (KU Leuven), Mr. Joren Looockx (KU Leuven), Mr. Toon Dehandschutter (University College Leuven Limburg), Ms. Hilde Leysen (University College Leuven Limburg), Prof. Hans van der Mars (Arizona State University)*

**Background and Purpose:** Research investigating the quality and quantity of student-coaches' interactions in Sport Education is lacking. The purpose of this study was to investigate the effect of student coaches' game play ability on coaching behavior during a high-school basketball Sport Education season.

**Methods:** Two gender-mixed high-school classes (n= 44) participated in this study. Prior to and upon completion of the study, 3v3 game play ability was assessed through video analysis by four trained coders based on a modified version of the Basketball game play assessment tool (Siedentop, Hastie & van der Mars, 2011). An individual game play score was calculated and students with a score below the median of the class were labeled as low-ability students, students above the median were labeled as high-ability students. In the experimental class, three mixed-ability teams received a 14-day Sport Education basketball season. In all teams high- and low-ability students alternated the role of team coach every lesson. All coaches (n=16) were audio- and videotaped to allow for data analysis. The comparison class was taught an individual content domain.

**Results:** High-ability students engaged 10% of the allocated time in coaching, low-ability students 7%. High-ability students had meaningfully higher frequencies per 10 minutes of refereeing (2.5 vs 1.3), provision of cues (4.5 vs 2.1), and feedback (13.3 vs 8.8). In the Sport Education class, high- and low-ability students significantly improved their game play ability (Mdn 60% vs 92%; 36% vs 68%;  $p < .01$ ) whereas students in the comparison class did not (Mdn 20% vs 20%).

**Conclusion and Implications:** This study demonstrated that although high- as well as low-ability students significantly improved their game play during a Sport Education basketball season, the quantity and quality of coaching behavior differed as a function of game play ability. Future research should investigate how low-ability coaches can improve their coaching quality.

## Physical Activity as a Function of Game Play Ability in a High-School Sport Education Basketball season

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Friday, 21st June - 14:27: (Nexus 155) - Oral Paper

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*Mr. Joren Loockx (KU Leuven), Mr. Toon Dehandschutter (University College Leuven Limburg), Ms. Hilde Leysen (University College Leuven Limburg), Prof. Peter Iserbyt (KU Leuven)*

**Background and Purpose:** Research on the differentiated effect of skill level on game play improvement and moderate-to-vigorous physical activity (MVPA) in Sport Education is lacking. In this study, we investigated 1) high-school students' game play improvement, and 2) MVPA as a function of game play ability during team practice and game play in a Sport Education basketball season.

**Methods:** One class with 21 high-school students (age 16-18) participated in a 14-day Sport Education basketball season. Prior to and upon completion of the season, students' individual 3v3 game play ability was assessed through video analysis, using a modified version of the Basketball game play assessment tool (Siedentop, Hastie & van der Mars, 2011). Students with a game play score below the median of the class were labeled low-ability, students above the median as high-ability students. Three mixed-ability teams were composed. Students' game play scores were coded by trained observers and MVPA was coded through systematic observation.

**Results:** Repeated measures ANOVA detected a significant improvement in game play ability from 52% (range: 28%-68%) to 84% (range: 60%-100%) for high- as well as low-ability students,  $p < .01$ . High-ability students engaged in MVPA for 65% during team practice and 49% during game play. Low-ability students had consistently lower MVPA values than high-ability students with 56% of MVPA during team practice and 34% during game play,  $p < .01$ .

**Conclusion and Implications:** Both high- and low-ability high-school students improved in game play and their ability level affected MVPA levels during the Sport Education season. High-ability students consistently met the 50% MVPA-benchmark whereas low-ability students did not meet this guideline during game play. Future research should investigate why low-ability students have lower MVPA values and how this can be countered.

# **Sport Participation in Vulnerable Youth and Game Centered Approach**

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## Building Bridges for Sport Participation Among Low-Income Youth

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Friday, 21st June - 13:45: (Nexus 156) - Oral Paper

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*Dr. Lauren Sulz (University of Alberta), Dr. Douglas Gleddie (University of A), Dr. Louise Humbert (University of Saskatchewan)*

Participation in school sport has been associated with a number of health and educational benefits. While schools may be thought of providing equitable access to sport, care providers are typically required to pay additional fees for their children to participate. Recognizing the potential benefits of school sport and realizing the financial barriers to participation for low-income families, KidSport, a Canadian non-profit organization, provides financial assistance for student registration fees. The purpose of this research was to understand the extent that participation on a school sport team supports attendance, grades, attitudes towards school, and wellbeing (physical, emotional, social) of students from low-income households. The specific objectives were to: (a) examine the range of interrelated factors that influence school sport experiences, and (b) determine the benefits and challenges of school sport participation for youth and their parents. This research was guided by ecological systems theory (Bronfenbrenner, 2009), allowing for simultaneous effects of individual traits, interpersonal and contextual factors. Data collection involved interviews with students, parents, teacher-coaches and stakeholders involved with KidSport (n = 32). Results generated through thematic analysis (Braun & Clarke, 2006) indicated that school sport provided incentive to attend classes, achieve good grades, and develop positive personal skills. Further, participants reported feeling connected to their school, a sense of purpose and enhanced interpersonal relationships. However, this study confirmed that even with support, low-income families face challenges related to school sport participation (e.g., transportation). The lack of participation in sport and physical activity among low-income youth is a societal problem, one that can be partially addressed through equitable access and financial support in the school context. Project findings may allow policy makers to better understand the obstacles to school sport participation and serve to identify how to enhance opportunities for youth from low-income families.

## Using Participatory Action Research to Implement a Games-Centered Approach

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Friday, 21st June - 14:06: (Nexus 156) - Oral Paper

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*Dr. Aspasia Dania (National and Kapodistrian University of Athens), Prof. Linda Griffin (University of Massachusetts Amherst)*

**Background:** Teacher change is a challenging and complicated process. Participatory action research (PAR) provides teacher educators and practitioners a framework that allows space for individual responses to the research process, and open sharing that recognizes group needs and interests. The overall goal is to create the conditions and actions (i.e., democratic and equitable) for sustainable change. Therefore, the purpose of this study was to explore through PAR two teacher educators' and three physical education (PE) teachers' shared commitment to implement a games-centered approach (GCA) in primary education. **Methods:** Participants were two teacher educators, one from the USA and one from Greece and three in-service primary school PE teachers from Greece who were already familiar with GCAs through professional development programs. Consistent with PAR methodology, participants joined initially in a collaborative process of knowledge and experience sharing in order to develop a guiding framework for unifying GCA strategies and developing resources. Afterwards, and in consultation with the teacher educators, each PE teacher constructed individual lesson plans that were implemented over a period of twelve weeks in their primary school settings. Data collection included game frameworks and lesson plans, documentation from meetings, semi-structured interviews with teacher educators and PE teachers, and the PAR self-reflective cycle (planning, acting and reflecting). Data from meetings were gathered in two ways: (a) for face-to-face meetings, research memos were compiled at the end of each meeting, and (b) for online meetings, ZOOM was employed and meetings were recorded. All interviews and meetings were transcribed verbatim. Data analysis consisted of open, axial, and selective coding employing the PAR self-reflective cycle. **Results and Implications:** Initial results indicated that although there were contextual challenges (i.e., different countries, languages) the PAR cycle provided individual participants a way to become an equitable professional learning community (PLC). The PLC built the values of trust and reliance through their shared interest and passion for a GCA. Relationships were developed through collectively sharing materials and engaging in critical reflections (self and group). Over time, relationships were cultivated based on an appreciation of each other's interests, efforts and a belief that knowledge was equally represented and everyone felt like an expert in their field. Although the practice of PAR is not new to the teacher change literature, exploring PAR and the use of social media across different cultures provides teachers and teacher educators an enhanced way of thinking more globally.

# **In-service Professional Development for PE**



## Meaningful teacher educator professional development in physical education teacher education: A collaborative self-study

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Friday, 21st June - 13:45: (Nexus 157) - Oral Paper

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*Dr. Mats Hordvik (The Norwegian School of Sport Sciences), Mr. Anders Haugen (Oslo Metropolitan University), Ms. Berit Engebretsen (Oslo Metropolitan University), Mr. Lasse Møller (Oslo Metropolitan University), Dr. Tim Fletcher (Brock University)*

### Background and purpose:

Acknowledging that self-study of teacher education practices (S-STEP) has the potential to function as a pedagogy for teacher educator professional development (Hamilton & Pinnegar, 2014; Hordvik, 2018), this study was guided by the question: How does collaborative S-STEP help drive a group of teacher educators toward meaningful professional development?

### Methods

This study involved four teacher educators in a Norwegian physical education teacher education (PETE) department and two groups of pre-service teachers (13 females and 37 males) taking part in a 15-credit models-based practice module. A teacher educator located in Canada served as critical friend to the teacher educators. Data were generated through (i) the teacher educators' reflective diaries; (ii) audio records of: group meetings between the four teacher educators and critical friend, meetings between pairs of teacher educator participants in different configurations (conducted after peer observations), and individual meetings with the critical friend; (iii) three focus groups with eight PST groups (carried out before, during and on completion of the module). Qualitative content analysis was used to analyse data.

### Results:

Results convey how the collaborative S-STEP produced teacher educator engagement and accountability, and a safe and meaningful space for discussing and enacting change in teacher education practice. While the teacher educators found the structured individual reflection and their pair and group meetings to be valuable in opening new ways of thinking about and doing PETE, they struggled to find time for such reflections and discussions due to their total teaching workload.

### Conclusions and implications:

This study showed that S-STEP functioned as a pedagogy for professional development, highlighting how engaging with the nature of S-STEP can facilitate meaningful professional learning experiences for teacher educators in the Norwegian PETE context. Departments and their leaders and organizers are encouraged to deliberately plan for collaborative and departmental S-STEP inquiries.

# Effects of implicit and explicit learning processes in the development of tactical and motor skills in games sports

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Friday, 21st June - 14:06: (Nexus 157) - Oral Paper

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*Mr. Wilder Valencia (Universidad de San Buenaventura), Dr. Elkin Arias (Universidad de Antioquia)*

## **Introduction**

The objective of this paper is to determine the differences between the learning effects of technical skills and tactical competences after applying didactic processes for implicit, explicit and hybrid learning (implicit - explicit combination). Implicit learning occurs without deliberate intention and through automated processes. On the contrary, explicit learning is intentional and purpose-oriented.

## **Methods**

49 children between 8 and 9 years old were randomly assigned to three groups: in the first group of implicit learning, games and activities were promoted where the secondary rules of the game were manipulated, the participants were led through free exploration and guided discovery to solve the problems that the modifications of the rules of the game could present. In the second group of explicit learning, instructions were given about what the participants should do, it was indicated in advance how the problems of the game should be solved when they arise. In the third group the two types of didactic strategies were combined. Each group had a process during 12 sessions of 90 minutes each and was evaluated in two moments: pre-test, before the beginning of the didactic process and post-test, after finishing the process. The Game Performance Evaluation Tool (GPET) was used for the measurement of tactical skills and the Loughborough Soccer Passing Test (LSPT) was used for the evaluation of technical skills.

## **Results**

The results suggest that there were statistically significant differences in favor of the group where the implicit learning and the hybrid group were promoted when compared with the group that promoted the explicit learning. However, when comparing the implicit and hybrid group, no differences were found.

## **Conclusion**

Implicit and hybrid didactic processes have better effects for the learning of tactical competences and technical skills than an explicit didactic process during the learning of sport games.

## Lesson Study with Physical Education Preservice Teachers

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Friday, 21st June - 14:27: (Nexus 157) - Oral Paper

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*Dr. Deniz Hunuk (Pamukkale University), Prof. Ann MacPhail (University of Limerick)*

### Introduction

Lesson study (LS), professional development model which originated in Japan, aims to enhance the pedagogical competence of teachers through working in collaboration in planning, implementing and assessing the lesson. Some attempts have been made to apply LS approach in initial teacher education. However, applying LS in teacher education programmes is challenging given that pre-service teachers (PSTs) lack experience in teaching and thus often tend to struggle with the notion of LS.

### Method

In this study, LS was conducted as a part of PSTs' 12-week teaching practice course. Eight PSTs took part in the study with a physical education teacher-educator who supervised the PSTs during teaching practice and facilitated them through the LS process. Data included (i) the teacher educator's field notes, (ii) audio-recorded weekly debriefing between the teacher educator and PSTs, (iii) PSTs' weekly observation notes, (iv) audio-recorded weekly discussions between the teacher educator and a critical friend, and (v) semi-structured post interviews with PSTs. Data were analysed qualitatively using the constant comparison approach (Glaser and Strauss, 2012).

### Results

Findings indicated that by conducting LS, PSTs learn to experience collaborative planning, focused on students' learning by using structured observation forms, evaluated and revisited their lessons, and undertook critical reflections. The collegial and constructive dialogues during debriefing sessions also helped PSTs to improve their learning about collaborative problem solving and critical thinking skills.

### Conclusion

A critical component of teacher education is that PSTs develop an ability to learn from teaching. This study reveals that the use of LS in PSTs' teaching practice has potential to create a professional learning community among PSTs (and teacher educators) in which collegial and constructive dialogues contribute to PSTs' learning and skills.

# **Activity Programs for Women and Girls**

## Young women's constructions of valued bodies: Healthy, athletic, beautiful and dieting bodies

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Friday, 21st June - 13:45: (Nexus 158) - Oral Paper

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*Prof. Kristin Walseth (Oslo Metropolitan University), Ms. Thea Tidslevold (Oslo Metropolitan University)*

The background for this study is an increased societal concern about young people's health and dissatisfaction with their bodies. Current youth culture is dominated by an overwhelming focus on the body, and is emphasised through young people's use of social media where pictures of body ideals dominate. Research report that girls are more dissatisfied with their body image than boys, and social media is currently ascribed an important role in the formation of body dissatisfaction.

This study specifically examined how young female athletes understand and give meaning to pictures in the media based on their perception of what constitutes a valued body. A qualitative approach using visual methods (collecting photos) and interviews was chosen. The participants were uppersecondary school student athletes in Norway. The data were analysed with a focus on the discourse of 'valued bodies' and their representations.

The results reveal that the young women's constructions of valued bodies are primarily made with reference to health, beauty and dieting. The 'beautiful body' representation, portrayed by photos of a fit but objectified female body, was revealed as the main representation of a valued body. A dominating construction was the idea that a beautiful body is a healthy body. The representation of 'a body that can perform' appeared as a counter-representation and included photos of elite female athletes. This counter-representation included powerful, sporty femininities that contradict discourses of traditionally feminine, docile bodies.

The study concludes that if sport participation should become 'technology of self' that empowers female athletes and improve their well-being, the participation in sport and fitness activities must focus on health literacy and include critical awareness of how different discourses on the body might limit young women's potential in and outside sport.

## #ActiveFitSporty - Impact !!!

Friday, 21st June - 14:06: (Nexus 158) - Oral Paper

*Mrs. Tandy Haughey (Ulster University), Dr. Stephen Shannon (Ulster University), Dr. Garry Prentice (Dublin Business School), Dr. Gavin Breslin (Ulster University)*

**Background and purpose:** To establish the impact of investment and alignment to core outcomes from PfG there was a need to evaluate #activefitsporty programmes using extended methodologies related to theoretical principles. Therefore, the 2018-2019 programmes (6 organisations delivering 30+ programmes) all follow a standardised approach to establish the change in behaviour of all involved in the #activefitsporty project. The overall aim of the programme was to deliver strengthened sporting structures for females, to ensure that all new and returning participants are inspired, welcomed, enthused and remain motivated to stay active.

**Methods:** Cross sectional study, with variables measured at two time-points. To assess the effects of programmes delivered in various settings on improvement of daily wellbeing being predicted by needs-supportive active leaders. Measures were; Autonomy satisfaction (PCASS); Well-being (WEMWBS); Daily Needs satisfaction scale and Theory of Planned Behavior (TPB). At both baseline and follow-up, the data from each participant was given a unique identifying code for the study. Confirmatory factor analysis and data consistency checks were conducted to ensure factorial validity and internal consistency of the scales before analyses. Structural equation modelling analysis was used to test SDT hypothesis on the values. Statistically pathways between autonomy-supportive and controlling behaviours and needs satisfaction and wellbeing were completed.

**Results:** Significant relationships between the variables, needs - autonomy, competence and relatedness all have significant positive strong relationships with mental well-being, suggesting high levels of need satisfaction lead to higher levels of well-being. The significant positive moderately strong relationship between motivation for sport and attitudes suggests a counterintuitive relationship between the variables, with higher motivation to involve more females in sport also generating greater negative feelings towards involving more females in sport. The significant weak negative relationship between attitude and intentions, indicates that more positive feelings towards involving more females in sport to some extent also results in greater intentions to involve more females in sport. Greater levels of control, that is, confidence in ability to involve more females in sport, significantly related to at least moderate intentions to involve more females in sport

**Conclusions and implications:** A positive and healthy coach / leader / volunteer –athlete / participant relationship is essential for the development of positive change. Within this piece of research, the relationships between leaders and participants showed the importance of this across each programme. How each intervention programme (of varying length and content) can assist in enhancing the wellbeing of the female population is indeed dependent on their context. This study was developed to gain a better understanding of how improvements in daily wellbeing can be shown through:

- Being trained by needs supportive active mentors/leaders
- Delivery of programmes within specialised communities can have a positive influence in changing behaviours

## Impact of Game-Centered Approach (TGfU) Practices for a NCAA College Women's Soccer Players' Performance

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Friday, 21st June - 14:27: (Nexus 158) - Oral Paper

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*Dr. Kanae Haneishi (Mount Holyoke College)*

Game-centered approach such as Teaching Games for Understanding (TGfU) has been increasingly recognized for its unique feature and the positive impacts in coaching profession. Since research in this area is still underdeveloped, this study was conducted to investigate the impacts of the game-centered approach with NCAA (i.e., the National Collegiate Athletic Association in the U.S.) women's soccer players. This study was particularly focused on their cognitive learning of game play and their overall game performance.

Game performance during a 5-week spring season was examined through Game Performance Assessment Inventory (GPAI) with 17 participants (Age 18-21). Cognitive learning of game play was assessed with instant recalls and practice journals with all participants as well as simulated recall interviews with three target players. The simulated recall interviews were analyzed by grounded theory method as well as condition, action, and goal concept protocol. Results indicated the strong potential to improve the overall game performance with the game-centered approach through reinforcing the recognition of more quality game information in larger scale and the adjustments on and off the ball movements. In the complex and dynamic game learning situation, the players were able to identify the key tactical/technical components of the soccer game. The learning process supported the cognitive learning of game play by interacting mind and body as well as building different domains of game knowledge through the game-centered approach. The players used the game information to make adaptations through the complex game situation, and then constructed and built the cognitive representation which became more meaningful knowledge in the game. Additionally, this study positively supported the game learning through social interaction. The players were encouraged to communicate with each other, construct the tactical meaning through the interaction with other players, and reflect on their learning in the complex game situation.

# **Athlete Centered Coaching**



## Wisdom Manifested by Coaches and Their Influence on the Development of Team Elite Athletics

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Friday, 21st June - 13:45: (Nexus 241) - Oral Paper

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*Dr. Chia-Chen Liu (Department of Physical Education, National Taiwan Normal University / Department of Physical Education, National Taichung University of Education), Prof. Shih-ying Yang (Department of Educational Policy and Administration, National Chi Nan University), Dr. Chuan-yu Kuan (Department of Tourism and Leisure, Lunghwa University of Science and Technology)*

Wisdom is pertinent to handling human affairs and overcoming difficulties in daily life. Coaches' conceptions of wisdom can affect their decisions and actions when they are leading their teams, and influence the development of team athletic directly. Therefore, it is important to explore coaches' conceptions of wisdom, and this study aimed to emphasize the coaches' conceptions of wisdom. In this study, we conducted semi-structured interviews with 25 award-winning athletic coaches, who had successfully solved various difficulties in leading athletic teams and showed impact on development of team athletics positively. Upon acceptance of our interview invitation, coaches were informed their rights, and asked several questions, including "How do you define wisdom?" and "Can coaches' wisdom enhance the overall status of team athletics?" The interviews lasted from 30 to 70 minutes, and the entire conversation was audio taped. Each interview tape was transcribed verbatim; prior to transcribe, the identity of the interviewee was masked. Then each transcript was independently analyzed and coded by three analysts, who were blind to the aims of the study. The results showed that coaches generally conceive of wisdom as 1) perfecting their expertise by accumulating abundance of experiences and professional knowledge; 2) winning the prizes under difficult circumstances; 3) observing competition calmly and giving precise on-site instructions; 4) devoting themselves completely to leading the team; and 5) emphasizing team members' characters and providing enough guidance on cultivating character. These coaches manifested wisdom which corresponded with their conceptions of wisdom. Furthermore, Thirty-five wisdom incidents were categorized to four forms of coaching-related wisdom, and these findings confirm that wisdom is a process which encompasses integration, embodiment, and positive effects for self and others. Finally, contingency leadership is found to be leadership style adopted by most coaches. Coaches also led by example, authoritarian leadership, transformative leadership, caring leadership, and visionary leadership. The wisdom coaches manifested in leading their teams can generate positive effects for self, team members, and the whole teams.

## Becoming more athlete-centered with your coaching practice

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Friday, 21st June - 14:06: (Nexus 241) - Oral Paper

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*Dr. John Mccarthy (Boston University), Dr. Val Altieri, Jr. (Boston University)*

In an age where physical, psychological and emotional abuse in sport coaching are all too commonplace, policy makers, administrators, educators and parents are now calling for change. Often when coaching problems arise it is clear that there is a need to align coaching practice toward more athlete-centered approaches, like those described in the National Standards for Sport Coaches (SHAPE America, 2019). Standard 1 states coaches are responsible to “Develop and enact an athlete-centered coaching philosophy.” But despite these guidelines coach-centered approaches prevail (Kidman & Lombardo, 2010; Paquette & Trudel, 2016; Pill, 2018) The pull towards traditional coaching approaches appears to be aligned with the intensely winning-oriented culture that now surrounds all levels of sport. Those coaches who wish to prioritize holistic and educational aims above winning are likely to find a paucity of athlete-centered models to imitate. This is because in the broader sporting society coaches often try to mimic the behaviors of professional and big-time college sport coaches. However, an athlete-centered approach has much to offer traditional coaches. Athlete-centered coaching is informed by educational approaches and principles that focus the development of decision-making, (Kidman, 2001) and the genuine development of athlete choice and voice (Hellison, 2011). The presentation will first, highlight the relevant literature on the benefits and barriers of implementing athlete-centered approaches. Second, it will identify the need for some specific areas of future research on athlete-centered coaching. Finally, basic ways to prepare coaches to implement athlete-centered approaches will be shared.

## **Tactical Decision Making in Sport: How coaches can help athletes to make better in-game decisions**

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Friday, 21st June - 14:27: (Nexus 241) - Roundtable discussion

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*Prof. David Cooper (Faculty of Kinesiology and Physical Education, University of Toronto), Dr. Barrie Gordon (Faculty of Education, Victoria University of Wellington)*

For athletes to become better in-game tactical decision makers, the coach must create an environment where athletes are empowered to be active participants in their coaching and learning experience. This is a fundamental pillar of all Athlete-Centred Coaching (ACC) principles as outlined Miller and Kerr (2002), Kidman (2005), Kidman and Lombardo (Eds.) (2010), Headley-Cooper (2010) and Pill (2017).

An important part of the athlete empowerment process is a supportive and non-threatening practice environment that a coach must create, where athletes are allowed to take responsibility for their decision-making and find answers to the challenges that are presented to them. Learning from making mistakes in practice becomes an integral part of their development. Only after athletes become comfortable with this responsibility in practice will they feel confident to make their own decisions in the in-game environment.

Game-Centred Approaches (GCA) to coaching and teaching sport have the goal of creating in-game or in-practice learning situations that help athletes understand what choices they have at any given time. They also propose that athletes learn best when game situations are simplified and explained, often using small-sided games or activities where the normal rules and playing dimensions have been adapted to focus on a certain skill or tactical play.

This presentation will combine the practice of Athlete-Centred Coaching (ACC) and the use of Game-Centred Approaches (GCA) to help coaches help their athletes and make them more successful in-game tactical decision makers.

# **Symposium 8: Laureus Foundation Sponsored Event**

## Engineering sport to enhance the holistic development of New York City youth

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Friday, 21st June - 15:15: (Nexus 239) - Symposium

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*Dr. Meredith Whitley (Adelphi University), Ms. Antonia Smith (STOKED Mentoring Inc.), Mr. Ryszard Chadwick (Play Rugby USA), Mr. Jai Nanda (Urban Dove), Mr. Amit Bahl (Urban Dove), Dr. Dawn Anderson-Butcher (The Ohio State University)*

Throughout New York City, youth are drawn to sport for various reasons, with dreams of playing professionally and gaining access to higher education mingled with interest in developing competence, meeting new friends, and having fun. While the traditional sport model (e.g., school sports, travel teams) develops the athletic talents of promising athletes, this model often overlooks their holistic development (Camiré, 2014). This model also ignores those who could benefit greatly from sport experience, but are not primed to become athletic wonders (Côté & Hancock, 2016). Additionally, there is often a gap in services for youth residing in urban communities, including access to diverse sport programming (Collins, 2014). Entrepreneurial not-for-profit organizations and charter schools have responded to this gap in services with innovative programming which prioritizes the holistic development of youth, particularly those residing in under-resourced communities. In this symposium, not-for-profit organizations and a charter school will present their experiences serving New York City youth from under-resourced communities through sport, with a particular focus on social-emotional and educational outcomes. Each group will present their program structure, along with the activities and strategies designed to maximize social-emotional and educational outcomes. Each group has engaged in ongoing measurement and evaluation efforts, which will also be shared. The presenters recognize that this is far from an exact science, given that on-ground programming in urban, under-resourced communities can make implementation and evaluation efforts challenging (Whitley, Forneris, & Barker, 2014). Therefore, the chair will also facilitate a discussion among the presenters about the challenges of using sport to enhance the holistic development of New York City youth, along with the struggles of accurately measuring these efforts. To conclude the symposium, the discussant will address the common themes among the presenters regarding best practices and challenges, along with directions for future applied work and research.

Paper 1: STOKED for success: Creating opportunity through action sports mentoring

Abstract: New York State owes an estimated \$1.63 billion to public schools in New York City, with 72% of this money owed to high need schools (AQE, 2016). Thus, many New York City youth are attending underfunded schools with minimal educational, programmatic, and financial opportunities. Stoked Mentoring Inc. (STOKED) is a nonprofit action sports mentoring organization that seeks to close the opportunity gap between resource-rich and under-resourced communities. STOKED offers 570 hours of enrichment programming to low-income, diverse youth living in under-resourced communities in New York City. STOKED is founded on the belief that the skillset (courage, patience, and determination) needed to learn action sports is the same needed to overcome adversity in one's life (Lee, Cheung, & Kwong, 2011). In this presentation, the action sports-based curriculum will be outlined, along with the steps taken to ensure contextual and cultural relevance. Ongoing measurement and evaluation efforts will be shared, including: (a) development of 21st century skills (e.g., communication, collaboration, creativity, critical thinking); (b) development of college and career readiness skills; and (c) increased youth engagement in schools and communities. The presentation will conclude with a critical reflection on the importance of access as a means of closing the opportunity gap.

Paper 2: Developing a better world through Rugby – a hands on, values based approach to youth development

Abstract: Play Rugby USA mission statement is 'we use the unique power of rugby to empower and inspire youth, primary from underserved communities, to go forward and realize their true potential'. When Play Rugby USA first

started in 2003, the New York City graduation rate for high school was 47% (NYC DOE, 2003). For over a decade, Play Rugby USA has been serving youth in underserved communities and has successfully graduated 100% of their high school participants through their High School Academy Program, with each one of those graduates successfully enrolling into college. This presentation will describe the ‘Why’ and the ‘How’ around Play Rugby USA’s coaching methodology and philosophies, unique program design, and intentional participation pathways that lead to long term, positive social emotional learning as well as college and career readiness. The presentation will also share Play Rugby USA impact results, along with how the organization collects and measures data to then inform program design and coach development.

Paper 3: Urban Dove Team Charter School: Using a sport-based youth development framework in a school-based model

Each year, the New York City Public School system has thousands of high school students who fail the 9th grade, with approximately 70% of these students ultimately dropping out (NYC DOE, 2015). While their inability to find success can be attributed to a lack of academic skills, Urban Dove believes the main problem is the absence of strong social and emotional development. The traditional educational response for these students, however, is more academics, not more youth development. Urban Dove Team Charter School (UD Team) Network was founded in 2012 to serve this highly at-risk population. UD Team prioritizes teaching youth development through sports, focusing on the core values of teamwork, leadership, and communication. This presentation will outline the background of UD Team students and describe the unique sports and team-based model, including its contextual and cultural relevance. Additionally, UD Team’s accountability evaluation will be presented, with both hard and soft data tracking student progress. The outcomes from this ongoing evaluation will be described (e.g., life skill development, credit accumulation, high school graduation, college enrollment). The presentation will conclude with a discussion of the challenges and opportunities that arise when using a sport-based youth development framework in a school-based model.

## **Roundtable 5: Athlete Centered Coaching**

## Athlete-Centred Coaching Round Table Discussion

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Friday, 21st June - 15:15: (Nexus 126) - Oral Paper

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*Dr. Shane Pill (Flinders University), Prof. Carlos Gonçalves (University of Coimbra), Prof. Linda Griffin (University of Massachusetts Amherst), Dr. Stephen Harvey (Ohio University), Ms. Karlene Headley-Cooper (Crofton House School), Dr. Mitch Hewitt (Tennis Australia), Prof. Wayne Smith (University of Auckland), Prof. Adrian Turner (Bowling Green State University)*

This discussion will interrogate and discuss research literature and practitioner stories of experience with athlete-centred coaching.

- Promoting an educative process for athletes sporting experiences: Linda Griffin will present major aspects to consider in an athlete-centered approach (i.e., pedagogical principles, democracy in action, integration of life skills);
- Consideration of the athlete's biological diversity. Carlos Goncalves and Humberto Carvalho will discuss biological diversity and the obligation to tailor training and competition loads;
- The trials and tribulations experienced by coaches adopting an athlete-centred coaching approach: Adrian Turner will address a "triple threat" to athlete-centred coaching: finance, parental influence and a focus on winning. Shane Pill will explore three roles of a pedagogical coach working with an experienced coach - coach as pedagogical collaborator, coach as a pedagogical model, and coach as a pedagogical leader. Stephen Harvey will focus on the challenges of high performance coaches learning to be athlete-centred through the lens of Antonovsky's salutogenic theory and sense of coherence model and the concepts of comprehensibility, manageability, and meaningfulness, which helps players focusing on what they *can* do. Mitch Hewitt will share how the pedagogical tenets associated with the Game Sense Approach and Mosston and Ashworth's Spectrum of Teaching Styles have assisted Australian tennis coaches to adopt a more athlete-centred approach to coaching.
- The influence of social and cultural contexts on athlete-centred coaching: Wayne Smith will explain how the cultural and social context is particularly important when learning to be 'skillful' during the formative stages of athlete development.
- An autoethnographic narrative of athlete-centred coaching: Karlene Headley-Cooper will outline why it is important to recognise what actually happens on the field, court or pitch every day, and therefore, essential for researchers to connect lived experiences with academic findings.

Delegates will be interactively involved in a conversation café with the presenters.



# **Symposium 11**

# Physical Activities and Movement Integration in Danish Public Schools

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Friday, 21st June - 15:15: (Nexus 237) - Symposium

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*Mr. Anders Halling (VIA University College), Mr. Kasper Lasthein Madsen (VIA University College and Norwegian School of Sports Science), Ms. Bodil Borg Høj (VIA University College)*

## Authors

1. Mr. Anders Halling - VIA University College
2. Mr. Kasper Lasthein Madsen - VIA University College and Norwegian School of Sports Science
3. Ms. Bodil Borg Høj - VIA University College

## Abstract

In 2014, the Danish government passed a new reform for Danish public schools targeting primary and lower secondary education. The reform specified that physical activity (PA) should be a mandatory part of the school day corresponding to an average of 45 minutes per day, and the justification for the law was a broad variety of arguments of health, wellbeing and improved learning.

While the overall educational reform and policy, are determined at the national level, responsibility for the implementation of the policy is retained by the municipalities and the individual schools. As a result, local authorities have a pivotal role in the enforcement and implementation of the mandatory PA, which affords a considerable degree of autonomy and flexibility at the school level.

Recommendations for multi-component approaches targeting PA have been developed in several countries (McMullen et al. 2015) and have received considerable attention as an effective strategy for promoting physical, mental and academic benefits of PA for students (Naylor et al., 2015). One component of multi-component approaches and the focus of this symposium is Movement Integration (MI) which is defined as infusing PA into general education classroom time (Webster et al. 2015).

Since the beginning of the reform, a majority of the Danish teachers seems to think that MI has a positive effect on the children's learning, but studies shows that only 20% of the teachers integrate movement on a daily basis (Jacobsen et al., 2017). The difference between the teachers' positive attitude towards MI and the challenges and barriers they perceive is a paradox that merits further investigation of the different intentions, discourses and epistemic background that dominate the field. The symposium introduces different issues: Headmasters/principals role and responsibility concerning MI, an Enactive approach to MI and the Pedagogical and didactical implications and possibilities.

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Paper 1

Part of Symposium - Physical Activities and Movement Integration in Danish Public Schools

Author 1

Title: Implementing a PA policy in schools

Anders Halling, VIA University College, Denmark

The introduction of movement integration (MI) in the Danish Schools presented the school principals with a challenge of implementing the new educational paradigm or the new teaching method into the schools.

This action research study aims to develop an approach to how principals can implement MI and thereby support the teachers to integrate movement as a teaching method.

Six headmasters from different schools took part in the study in which semi-structured interviews and workshops were conducted. Data were analyzed in cooperation with the headmasters and gathered into different elements of school management. These elements were further developed in reflection with both existing implementation models and in cooperation with the headmasters.

The result can be of educational value for headmasters and teachers confronted with the challenges of managing changes like the introduction of MI.

The results show that the changing of the practices (MI) must be accompanied by the headmasters' specific answer to why MI is important at the actual school. Secondly the changes must be in alignment with the school's current line of development. Following that it is important that the actual MI is discussed and justified in the school meetings, teamwork and teacher training. This forms a concept that generates a shift in the relations between members of staff and principals in their efforts to develop a collective understanding of the new practices (MI).

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Paper 2

Part of Symposium - Physical Activities and Movement Integration in Danish Public Schools

Author 2

Title: An Enactive Approach to Movement Integration in Education

Kasper Lasthein Madsen, VIA University College and Norwegian School of Sports Science

Movement Integration (MI) in Danish public schools is currently at a stage where distinguishable positions are manifesting in the attempts to integrate the initiative, and subsequently different didactical approaches are developing. In the context of MI, researchers and teachers struggle to define the relationship between movement and cognition, which influences the pedagogical practice. The dominating approach in Danish context is rooted in a concept of cognition informed by information theory. The consequences are that studies on the effect of physical activity in an educational context provide limited means for teachers to transform policy texts concerning movement and physical activity into pedagogical practice in the classroom.

This study critically examine existing approaches and subsequently outline an alternative approach informed by recent developments in cognitive science concerning embodied cognition. We clarify philosophical differences between the epistemologies, which provides an analytical lens that helps analyzing their different accounts of movement, cognition, and the consequences for the pedagogical practice. The result of the study is an alternative approach to MI enriched by insights from the field of embodied cognition, which can be of educational value and inform new working methods for teachers in a school context.

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#### Paper 3

Part of Symposium - Physical Activities and Movement Integration in Danish Public Schools

#### Author 3

Title: Movement integration!

Bodil Borg Høj, VIA University College, Denmark

The new school law for Danish public schools in 2014 imply a need for pedagogical development. The Action Research (AR) project iMOOW! examine different approaches to MI and develop pedagogical practice within the classroom. The project is a collaboration between six Danish public Schools, VIA University College, The Norwegian School of Sports Sciences, and the University of Southern Denmark. The aim of the project is to develop MI using a bottom-up strategy where teachers and researchers in a reciprocal cooperation develop a meaningful practice in the classroom (Rönnerman & Salo, 2012). The process of inquiry is anchored in the local environment and is a result of the teachers' daily work (Reason & Bradbury, 2008). The project consist of a dynamical cycle of theory, practice, action and participation (Kemmis & McTaggart, 2005). Especially innovation and facilitating new ideas is important when developing pedagogical practice (Tidd and Bessant, 2013).

The result of the research points to certain didactical elements. 1) A coherent connection between the academic content and MI and calls for different body practices and perceptual experiences. 2) Progression 3) Differentiation. The three elements is important for the pedagogical practice and enhance motivation for both teachers and students.

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# **Engagement and Student Voice in PE**

## Teachers' perspectives on giving voice to students in Physical Education

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Friday, 21st June - 15:15: (Nexus 275) - Oral Paper

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*Mr. Donal Howley (University of North Carolina Greensboro), Prof. Mary O' Sullivan (University of Limerick)*

The purpose of this presentation is to explore teachers' perspectives on giving voice to students in Physical Education and the impact it has on teachers' beliefs and practices. We also set out to explore if and how student voice initiatives used by teachers in PE transcended and manifested itself in other subjects and school practice.

Fielding's Patterns of Partnership (2012) and Pearce and Wood's Framework for Evaluating Student Voice (2016) are used as theoretical frameworks to interpret the climate around the use of student voice in the contexts of the study and informed the following three research questions: 1) What pre-conceived perceptions did PE teachers hold of giving students a voice in their education? 2) What teacher beliefs and practices were challenged by student voice during the study? 3) Did challenges to teachers' beliefs and practice in PE reflect the wider school setting? A qualitative comparative case-study of three teachers in a triad of Irish secondary schools elicited their experiences of giving voice to students using focus groups, interviews, and a reflection journal.

Results found that, initially, while teachers felt they gave voice to students, such attempts were tokenistic. Areas of practice challenged by giving voice included instruction and planning, student engagement and teacher-student relationships. Teachers' beliefs of the purpose of PE and student voice also changed. However, teachers were not forthcoming in implementing student voice in the additional high-stakes examination-based subjects they were teaching. This suggests that student voice could be undermined by traditionally institutionalized pedagogies deemed necessary for student accomplishment in high stakes scenarios.

This presentation highlights the challenges in giving voice to students in PE and schools. Future initiatives must consider how to encompass students' learning and assessment in PE and consider the viability of student voice against the backdrop of high stakes assessment.

# Examining the Concept of Engagement in Physical Education: A Primer

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Friday, 21st June - 15:36: (Nexus 275) - Oral Paper

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*Prof. Peter Hastie (Auburn University)*

## **Background and purpose**

The concept of engagement is a multidimensional construct that has long been used by researchers as a means of explaining student behavior in classrooms and schools. However, the research using this construct within physical education has been beleaguered by the lack of a robust operational definition, together with an unevenness in the application of the term. Indeed within physical education research there is almost no consistency with respect to the application of this term.

This presentation will introduce tools that researchers in physical education can use to appropriately account for all the different components of engagement in future studies.

## **Main points**

This paper first examines the historical roots of engagement research, both in classroom and physical education settings. The focus here is on how engagement has been conceptualised and measured differently across time. Following this, ideas for data collection tools are proposed that researchers might use when assessing the multidimensional nature of engagement. Specifically, the proposal is made that future research examining student engagement in physical education needs to include evidence of both students' self-perceptions about their engagement as well as observations of their in-class behaviors.

The paper concludes with a number of pertinent and valuable questions regarding young people's participation in physical education. In order to conceptualize these possibilities, the model of Dunkin and Biddle is used as the basis from which four sets of variables which directly and indirectly influence student achievement.

## **Alignment with conference aims**

This topic fits comfortably within the "Physical Education and Physical Literacy" sub-theme, as it presents discussion on a topic (student engagement) that is critical to the "development, implementation and evaluation of quality physical education".

## **Conclusions**

This paper presents a clearly defined and reliably measured construct of engagement which should allow future studies on this topic to be more substantive and illuminating.

# **Inclusive Education in Refugee and Multi-ethnic Context**



## **Social relations in and beyond physical education - implications for inclusive education in multi-ethnic contexts**

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Friday, 21st June - 15:15: (Nexus 154) - Oral Paper

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*Mrs. Ingrid Thorjussen (Norwegian School of Sport Sciences)*

The intention of inclusive education goes beyond providing for children's academic development. The school also has a responsibility to ensure that children build friendship and develop respect for each other in diverse contexts. In the Norwegian curriculum, physical education is emphasized as an important arena for promoting respect for each other due to the social aspect of the subject. Yet, studies reveal that some students experience discrimination and marginalization in PE because of their ethnicity, religion, social class and/or gender. Underpinned by an intersectional framework the current study seeks to gain more knowledge of how PE can achieve the aim of social inclusion. Based on an ethnographic study among students (aged 14-16) in two multi-ethnic co-educated PE classes, we investigate how social relations in PE can be understood in light of circumstance in the students' everyday life. The data consists of written field notes from observations in 56 PE lessons and semi-structured interviews with nine girls and eight boys of different ethnic background. The findings indicate the importance of friendships and social relations in the PE context. However, social relations created outside the PE context are apparently reproduced in the subject. Though a majority of the interviewees explicitly told that ethnicity did not matter in whom they hung out with, the stories indicated a division between 'the real Norwegians' and 'the foreigners' in the social relations at school and in students' spare time. The presentation offers a discussion of how social relations might be influenced by class culture (appearance and consumption), and the ways that ethnicity, national identity and culture are interlinked to (re)produce a picture of the 'Norwegian'. In the work for improving PE as an arena for social inclusion, we argue that it is important to make visible the influence of social categories in order to uncover some of the 'subconscious' ways they shape social relations.

## Newly arrived migrant and refugee children and adolescents' contact with organized sports in Sweden

Friday, 21st June - 15:36: (Nexus 154) - Oral Paper

*Dr. Owe Stråhlman (Linnaeus University), Dr. Konstantin Kougioumtzis (University of Gothenburg), Dr. Stefan Wagnsson (Karlstad University), Dr. Christian Augustsson (Karlstad University), Prof. Göran Patriksson (University of Gothenburg)*

The latest migration crisis put Europe close to its limits, while Sweden is one of the countries that hosted migrants. This study aims at describing sport participation of newly arrived migrant and refugee children and adolescents and at highlighting opportunities and obstacles that affect participation. According to the Swedish legislature, children/adolescents are characterized as newly arrived if they have attended a Swedish school for no more than four years.

A mixed-method approach was used. More specifically, a multi-language questionnaire was completed by a purposive sample of 422 newly arrived children and adolescents (age:  $M = 16.9$  years,  $SD = 2.2$ ; origin: 31% Afghanistan, 29% Ethiopia-Eritrea, 28% Syria etc.) In addition, a convenience sample of 107 newly arrived children and adolescents participated in 28 focus groups interviews (age:  $M = 16.2$  years,  $SD = 1.5$ ; origin: 27% Afghanistan, 23% Syria, 20% Somalia etc.). The statistical analysis considered descriptive statistics and ANOVA with post-hoc comparisons (SPSS), while the text analysis was done utilizing nodes (Nvivo).

According to the questionnaire answers, 25% of the respondents participated in organized sports in Sweden (Group 1), while an additional 19% dropped out (Group 2). 56% had never participated in sport clubs in Sweden (Group 3). The answers of the groups were similar in relation to attitudes towards sports. Moreover, there were differences regarding perceived expectations from others. Furthermore, group 3 perceived lack of knowledge on how to participate in organized sports. The importance of process knowledge was evident in the analysis of the interviews. Considering opportunities, newly arrived children and adolescents emphasized the making of new friends and interaction with coaches through sports.

Overall, newly arrived children and adolescents' answers and views indicate a positive, dynamic, ongoing process. More systematic policy efforts are suggested to fully use the potential of organized sports to integrate migrants into receiving countries.

## Young refugees' narratives of in/exclusion in community sports clubs

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Friday, 21st June - 15:57: (Nexus 154) - Oral Paper

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*Prof. Fiona Dowling (Norwegian School of sport Science), Ms. Camilla Monsen Borgan (Norwegian School of sport Science)*

As the title of the conference bears witness, the narrative of sport as a melting pot, as an arena for cultivating inclusive meaningful physical activity and building bridges across ethnic divides is well established. Policy makers in many international contexts have reasserted the importance of sports clubs in the integration of newly arrived refugees in the face of the recent 'migrant crisis'. Whilst sports clubs and coaches can indeed provide positive learning experiences in community settings for some young refugees, this paper draws upon the growing body of research that calls for a more nuanced practice, acknowledging the heterogeneity of young refugees (Rutter 2006) and evidence that sports clubs can reproduce social relations that exclude, rather than include, newcomers (e.g. Coalter 2007; Jeanes *et al* 2014; Spaaij 2015).

Following Cassidy *et al* (2009), it argues that potential coaches need to be sensitized to the complexities of the young refugees' multiple and fluid identities if they wish to succeed in co-creating meaningful sports encounters. Namely, an understanding of how identities are carved out in transnational spaces at the intersections of gender, sexuality, ethnicity, religion, and ability. Importantly, there is also a need to go beyond the hegemonic idea of trauma as a universal experience amongst young refugees and acknowledge their resilience and agency. By drawing upon data from an ethnographic study of a sport for integration project, the paper presents a range of narratives (Dowling 2012) of in/exclusion in sport that highlight not only the complexities of the young peoples' lives, but moreover, also shed light onto the complexities of sport for inclusion (assimilation and/or a celebration of diversity). Accordingly, the narratives have a potential to evoke change in policy discourses if they disrupt established 'truths' and act as a catalyst for emphatic understandings of others' life worlds.

# **New Technologies in Exercise**

## A modern form of exercise: Can the active video fighting game replace running exercise?

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Friday, 21st June - 15:15: (Nexus 155) - Oral Paper

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*Dr. Hayriye Çakır-Atabek (Eskisehir Technical University, Faculty of Sports Science), Mr. Cihan AYGÜN (Eskişehir Technical University, Faculty of Sports Sciences), Ms. Bircan Dokumacı (Eskisehir Technical University, Faculty of Sports Science)*

**Background and purpose:** Active video games (AVGs) have become a point of interest as they are being considered as a potential intervention tool to increase physical activity among healthy adults. This study aimed to i) determine the exercise intensity and exercise characteristics of active video fighting game (AVG\_ fighting) by measuring various physiological responses, ii) test whether AVG\_ fighting exercise intensity meets the American College of Sport Medicine (ACSM) criteria for physical activity, and iii) test whether AVG\_ fighting can be used in place of traditional running exercise.

**Methods:** The AVG\_ fighting was performed using an Xbox Kinect. Twenty-two young men (age:  $20.59 \pm 2.15$  years, body fat percentage:  $9.07 \pm 4.61\%$ , and maximum oxygen consumption ( $VO_{2max}$ ):  $52.15 \pm 3.46$  mL/kg/min) visited the laboratory three times (D1, D2, and D3). The  $VO_{2max}$  was assessed following the resting measurements (D1). The participants run at a speed corresponding to 60-75% of the HR reserve (D2), and then played AVG\_ fighting (D3). Each experimental session lasted 20 minutes. The physiological variables such as oxygen consumption ( $VO_2$ ), carbon dioxide production ( $VCO_2$ ), and heart rate (HR) were measured continuously during the experimental sessions using the computerized, breath-by-breath analysis system, additionally; the metabolic equivalent (MET) and energy expenditure (EE) were calculated.

**Results:**  $VO_2$ ,  $VO_{2max}\%$ , MET, EE, and HR values were not significantly different between AVG\_ fighting and running ( $p > 0.05$ ). The total amount of EE of AVG\_ fighting for 20 minutes was determined as 236.8 Kkcal, in addition, the MET mean value of AVG\_ fighting was 9.7, which indicates that the AVG\_ fighting is a vigorous intensity physical activity.

**Conclusions and implications:** The results of this study indicate that AVGs are a viable tool to combat physical inactivity and may be modern forms of exercise, especially when the right AVGs are chosen. It should be emphasized that AVG\_ fighting game is non steady state exercise that includes short burst of high intensity, non-aerobic movements; furthermore, it can be used as an alternative exercise model in certain periods.

**Keywords:** Energy expenditure; Exer-game; Heart rate; Oxygen consumption; exercise model.

## Alternative model for physical activity: Right chosen active video games lead to vigorous physical activity

Friday, 21st June - 15:36: (Nexus 155) - Oral Paper

*Mr. Cihan AYGÜN (Eskişehir Technical University, Faculty of Sport Sciences / Anadolu University, Graduate School of Health Sciences), Dr. Hayriye Çakır-Atabek (Eskişehir Technical University, Faculty of Sports Sciences)*

**Background and purpose:** Active video games (AVGs) are one of the most important technology-based alternatives for contributing to active lifestyle potentially. The purposes of this study were to investigate the effects of different AVGs on some physiological variables, to compare the physiological responses to AVGs with those to classical exercise and daily sedentary routines, to investigate some psychological effects of different conditions, and to compare these physiological and psychological responses between the sexes.

**Methods:** The AVGs was performed using an Xbox and Kinect. Forty-three (n=22 male, n=21 female) volunteers participated in five different conditions (resting, watching television, brisk walking, AVG dancing, and AVG fighting). Each participant completed two laboratory visits. During these visits (first visit; Rested, watching television, brisk walking, second visit; Playing AVGs in a random order) oxygen consumption ( $\text{VO}_2$ ), carbon dioxide production ( $\text{VCO}_2$ ) were measured using breath-by-breath analysis system. Heart rate (HR) were measured using polar watch. Energy expenditure (EE), metabolic equivalent (MET), and respiration Exchange ratio (RER) were calculated. Rate of perceived exertion (RPE) and enjoyment scores were recorded.

**Results:** AVG dancing and fighting significantly increased  $\text{VO}_2$ , MET, EE, and HR compared with brisk walking, resting, and watching TV ( $p < 0.05$ ). There were significant differences between groups (sexes) and significant group (sexes) x different condition interactions for  $\text{VO}_2$ , MET, EE, and HR ( $p < 0.05$ ).  $\text{VO}_2$ , MET, and EE were higher in males for all conditions, whereas HR was higher in females. Similar RPE scores and higher physiological responses were obtained during AVG dancing. However, AVG dancing was more enjoyable than brisk walking. The highest physiological responses, RPE, and enjoyment scores were obtained during AVG fighting. The MET values were reportedly  $> 6$  for AVGs. AVG dancing 7.52 METs, 26.31  $\text{VO}_2(\text{mL.kg}^{-1}.\text{min}^{-1})$ , 9.69( $\text{kcal.min}^{-1}$ ) for males and 7.17 MET, 25.08  $\text{VO}_2(\text{mL.kg}^{-1}.\text{min}^{-1})$ , 7.07( $\text{kcal.min}^{-1}$ ) for females vs. AVG fighting 10.21 METs, 35.73  $\text{VO}_2(\text{mL.kg}^{-1}.\text{min}^{-1})$ , 13.12( $\text{kcal.min}^{-1}$ ) for males and 9.14 METs, 32.01  $\text{VO}_2(\text{mL.kg}^{-1}.\text{min}^{-1})$ , 9.31( $\text{kcal.min}^{-1}$ ) for females.

**Conclusions and implications:** AVG dancing and fighting represent enjoyable vigorous physical activity, and it can be considered as alternatives to classical exercise such as brisk walking to promote an active lifestyle especially when the right AVGs are chosen.

**Keywords:** exer-game; technologies in exercise; energy expenditure; oxygen consumption; heart rate.

# ActivE Youth - promoting physical activity through participatory processes and new technologies

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Friday, 21st June - 15:57: (Nexus 155) - Oral Paper

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*Prof. Rosa Diketmueller (University of Vienna)*

## Introduction

Various studies show that physical activity of young people is decreasing. New technologies like mobile devices are often seen as the reason therefor. In the project ActivE Youth the question was asked if and how geo-based applications /games or mobile devices can stimulate active mobility and physical activity of the young in urban spaces and how the knowledge of young people could be integrated within participatory processes in the intervention programme.

## Method

Before and after an intervention where different geo-based methods were experienced, mobility patterns of 35 pupils (15-17yrs) out of two public schools in central and suburban Vienna were recorded by accelerometer and the smartphone-app Moves. Additional data was acquired by an activity diary, an online questionnaire and feedback workshops. The data were analyzed by a multilayered triangulation.

## Results

Finally three types of (in)active young and user types were identified. The movement patterns of active pupils show more complex active mobility patterns within the city and use more different types of open spaces (streets, squares, parks) whereas inactive pupils mostly use streets for their active mobility and are only actively mobile if necessary e.g. on their way to school. Whereas normally higher socioeconomic status leads to higher levels of PA, especially girls in suburban Vienna benefit from a more mobility friendly environment (number of steps, MVPA). In addition, it was interesting, how girls and boys argued in the final focus group discussion, how they use these methods to increase their PA patterns.

**Discussion** The results indicate that geo-based games and mobile devices are seen as possibilities and support the activation of adolescents for more PA. In addition, interdisciplinary and intersectional approaches offer new insights how different youth groups are physically active within urban spaces and what could support their mobility patterns.

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# **Physical Activity for Elementary Children**



## THE EFFECT OF THE PILATES METHOD ON 6 - 10 YEAR OLD DANCESPORT DANCERS' PHYSIOLOGICAL RESPONSES

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Friday, 21st June - 15:15: (Nexus 156) - Oral Paper

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*Dr. Kristina Zaicenkoviene (Lithuanian Sports University), Mrs. Gerda Tumonyte (Lithuanian Sports University)*

*Background.* DanceSport dancers investigated how to improve their physical qualities, posture, balance, flexibility and endurance worldwide. Undoubtedly, the Pilates method is one of the best way for exercising one's core muscles and flexibility. However, there is a lack of data in the academic literature concerning the influence of Pilates exercises on dancers' fitness level belonging to different age groups and ranking (Bernardo & Nagle, 2006). Based on this, the aim of our study was to evaluate the 16-week Pilates exercise effects on 6 – 10 years old DanceSport dancers physiological responses.

*Methods.* The static deep trunk muscle endurance was tested with pressure measuring device "Stabilizer", flexibility with "Sit and Reach" test, static balance with "Flamingo" test and dynamic balance with "Star" excursion test in DanceSport dancers (n=38) who have been practising Pilates (13 girls and 7 boys) and used usual dance program (11 girls and 7 boys).

*Results:* After 16 weeks dancers who have been practicing Pilates method significantly improved static and dynamic deep trunk muscle endurance in all positions, static and dynamic balance and flexibility. The dancers that used to practice usual dance program, significantly improved static deep muscle endurance only in prone position, dynamic in supine position and dynamic balance, static balance and flexibility didn't changed significantly.

*Conclusions:*

Better improvement in 6 – 10 years old DanceSport dancers of deep trunk muscle endurance, balance and flexibility were found after 16 weeks Pilates exercises compering with dancers who practise usual dance program.

# The Daily Mile in Dutch primary schools: participation, implementation and perceived effects

Friday, 21st June - 15:36: (Nexus 156) - Oral Paper

*Ms. Jorien Slot-Heijs (Mulier Instituut), Ms. Dorine Collard (Mulier Instituut), Ms. Amika Singh (Mulier Instituut)*

**Background** Although the benefits of regular participation in physical activity (PA) are well known, many children are inactive and physically unfit. Only few examples of school-based PA interventions have been successfully incorporated into the curriculum. The Daily Mile (TDM) is an easy and free intervention in which children run, walk or jog for 15 minutes during school hours. TDM is intended to be performed at least three times per week, in addition to physical education lessons. In the Netherlands, TDM is promoted as a way to improve children's aerobic fitness. The aim of this exploratory study was to assess the degree to which Dutch schools participate in and implement TDM, and to assess the perceived effects of TDM from the perspective of school principals.

**Methods** A representative sample (n=400) of primary school principals completed an online questionnaire, which contained questions regarding acquaintance with, past and/or current participation in, implementation and perceived effects of TDM.

**Results** 81% of principals were acquainted with TDM. Of those acquainted with TDM, 10% participated in TDM with their school, 7% stopped participation in TDM, 20% were considering participating in TDM. Half of the participating schools performed TDM at the intended frequency of at least three times a week (52%).

School principals observed that classes were calmer after performing TDM (81%). School principals of schools participating in TDM at least three times a week observed an increase in students' fitness levels (63%) significantly more often than schools participating in TDM less than three times a week (27%).

**Conclusion** 1 out of 10 Dutch primary schools currently participate in TDM, in addition to physical education lessons. School principals observe both cognitive and physical effects of TDM. The physical effects are more frequently observed in schools that perform TDM at least three times per week. Future research should objectively measure the effects of TDM on aerobic fitness and other outcomes that are relevant for schools.

## Effects of promoting physical activity in schools by the design of playgrounds

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Friday, 21st June - 15:57: (Nexus 156) - Oral Paper

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*Mr. Benoit Vercruysse (Haute École Robert Schuman), Mr. Nicolas Bodard (Haute École Robert Schuman), Mrs. Amélie Brau (Haute École Robert Schuman)*

In 2019, the schools of the Wallonia-Brussels Federation (FWB - French speaking part of Belgium) begin a new step in the implementation of the new reform of their education system. This reform involves the entry into force of target contracts that educational teams have set themselves to improve their educational interventions. These goal contracts must be part of one of the new areas of the « Pact of Excellence ». The area that interests us here is called Physical Education, Well-Being and Health. This area aims to lead all pupils to set up the conditions for the development of their physical abilities, their physical and emotional well-being. This objective is embodied for a good part in the physical education course but also through other pillars, such as the layout of the school environment (eg the active playground) (Snyers et al., 2014).

In order to support them in their projects and to link them with current and innovative practices, the Ministry of Education has instructed higher education institutions to collaborate with these schools in their project in a collaborative didactic engineering approach (Sénéchal, 2016).

Eight schools located in different municipalities of the Luxembourg province were asked to participate in the study. Twenty students were randomly selected in each participating school while respecting the compositions of the physical activity level groups.

This paper will focus on presenting the results of active playground effects on student behaviors. The implementation of the development was done in three stages. The first was to develop several areas in accordance with the concerns of pupils. The second was to empower students in their material management. The third consisted in developing material and organizational links between the Physical Education course and the playground through the dimensions of the interest in situation. (Chen, Sun, Zhu & Chen 2014)

The use of pedometers (Cardon & De bourdeaudhuij, 2007) and direct observations via the SOCARP tool (Ridgers & Al. 2010) have enabled the collection of quantitative and qualitative data on pupils behavior. Preliminary results show that student pre-established areas in consultation with teachers influence physical activity levels as well as playtime supervisor competency profiles. From a qualitative point of view, behaviors that promote student autonomy in terms of material management, sort of free-play and the type of physical activity practiced, influence girls and boys differently.

# **Alternative Strategies for Physical Activity**

# Sport, physical education and physical activities among youth in Sweden – a polarization of participation in school and in leisure time

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Friday, 21st June - 15:15: (Nexus 157) - Oral Paper

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*Dr. Suzanne Lundvall (The Swedish School of Sport and Health Sciences, GIH)*

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## **Background**

During the last decades several changes in society have affected young people's physical activity (PA) habits. The aim of the study was to examine Swedish students and their PA habits during and after school time, including participation and learning in physical education (PE).

## **Method**

The method used was a survey including open and closed questions. The sample of schools was based on a national sample with randomly selected schools participating in the School-Sport-Health study in 2001. Results from 2001 are, when possible, used as reference data. In total 24 schools, 1203 students, aged 12- and 15- years, participated (598 girls/594 boys/11 not indicating sex).

## **Results**

The younger students reported a higher PA level during PE-lessons in 2016, 89.5% (2001 45.5%). Overall all ages the students described to a higher extent learning experiences that represented theoretical knowledge of physical health, all-round movement competence and fitness training. The commuting of longer distances by walking or biking to school has gone down compared to 2001 and hours spent on screen activities have gone up. Since 2003 daily PA shall be organized during school days, only 40% of the students knew this, less than 50% of those participated. In 2016, 21% of the students (62% boys, 38% girls) answered that they were very physically active in club sports: over 6 times/week, or over 10 h/week. 21%, equally distributed between gender, reported themselves as physically inactive. A higher amount of girls with foreign background were in the inactive group. Inactive students were represented in all schools, independent of socioeconomic status.

## **Conclusion**

The polarization between physically active and non-active students has grown during leisure time. PE emerges as a resource for PA and health. The implementation of daily school PA has failed, and strategies are needed to enable a health supporting environment for all students.

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# Negotiation Patterns of a Preservice Physical Education Teacher During Sport Education

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Friday, 21st June - 15:36: (Nexus 157) - Oral Paper

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*Dr. Kelsey McEntyre (Tarleton State University), Dr. Matthew D. Curtner-Smith (The University of Alabama)*

**Background and purpose:** Past research on negotiations within physical education has been purely qualitative (Wahl-Alexander & Curtner-Smith, 2014, 2015, 2018; Wahl-Alexander, Curtner-Smith, & Sinelnikov, 2018). The purpose of this study was to build on previous works by producing a quantified negotiation profile for one preservice teacher (PT). Specific research questions included: (a) What forms did negotiations take?; (b) To what extent did negotiations take place?; and (c) How did negotiations differ between grade levels?

**Method:** The participant was one PT from a university physical education teacher education (PETE) program. The PT taught three handball sport education (SE) seasons to sixth through eighth grade students. All 47 lessons were coded with the negotiation instrument (NI), a systematic observation instrument designed to classify and categorize negotiations. The classroom ecology paradigm guided data collection and analysis. Descriptive analyses were completed and Kruskal-Wallis tests were employed to determine differences between grades.

**Results:** Four hundred and three negotiations were coded across the 47 lessons. The first key difference included the PT's foci across grade level within the managerial task system [ $H(2) = 9.321, p = .009$ ]. Mann-Whitney U follow-up tests revealed differences between the 6<sup>th</sup> and 8<sup>th</sup> grade seasons ( $p = .009, r = .54$ ). The second key difference was non-success when initiating negotiations within the managerial task system [ $H(2) = 7.659, p = .022$ ]. Mann-Whitney U follow-up tests indicated the PT was less successful when negotiating managerial tasks within the 6<sup>th</sup> grade season than the 8<sup>th</sup> grade season ( $p = .026, r = .42$ ).

**Conclusions and implications:** Negotiations were relatively infrequent and few differences between the seasons were identified. The types, foci, and tactics were similar to those described in previous qualitative studies. Replications of the current study are needed to determine the extent to which the results generalize. In addition to being employed for research purposes, the NI could prove useful during PETE or as a tool for inservice training.

# **Approaches for Prospective and Pre-service Teachers**

# The influence of a special school placement on the professional development of prospective PE teachers

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Friday, 21st June - 15:15: (Nexus 158) - Oral Paper

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*Dr. Anthony Maher (Edge Hill University), Dr. Alan Thomson (Edge Hill University), Mr. Adam Burrows (Edge Hill University), Mrs. Sarah Hunt (Edge Hill University)*

Pupils with special educational needs and disabilities (SEND) participate less frequently and in fewer physical activities than their age-peers within curricular physical education (PE) (Maher, 2016), during after school clubs (Haycock and Smith, 2011), and outside of school (Stride and Fitzgerald, 2011). While the factors that shape these disparate opportunities and experiences are multifarious, it has been argued that initial teacher education (ITE) inadequately prepares PE teachers for their role teaching pupils with SEND (Coates 2009; Vickerman and Coates, 2012). This had led some (e.g. Maher, Morley, Fimusanmi and Ogilvie, 2017) to call for prospective (PE) teachers to gain more experience supporting pupils with SEND, in a special school context if possible, in order to increase their competence and confidence as inclusive educators.

For this research, undergraduate university PE students, all of whom were prospective PE teachers, were interviewed in groups before and after a special school placement. Here, the intention was to explore the influence of such situated learning experiences on their development as inclusive pedagogues. Focus group interview transcripts were analysed thematically in order to identify issues of salience to the participants. The findings of this research are discussed in relation to the impact of the special school placement on prospective PE teachers': (1) perceptions of the nature and purpose of PE; (2) conceptualisations of inclusive PE; and (3) learning about (inclusive) pedagogies. The presentation will end with some concluding remarks about the personal and professional development of PE teachers in relation to including pupils with SEND. It is hoped that the research will contribute in some small way to better preparing PE teachers, both within special and mainstream school contexts, for teaching children with SEND.



## **Incorporating movement integration into classroom practice: pedagogical perspectives and experiences of preservice secondary-school subject teachers**

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Friday, 21st June - 15:36: (Nexus 158) - Oral Paper

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*Prof. Jan-Erik Romar (Åbo Akademi University), Dr. Mårten Björkgren (Åbo Akademi University)*

Although the benefit of incorporating movement integration (MI) with academic subjects has been accepted, research indicates that classroom teachers perceive numerous barriers to using MI, while no research exists on subject teachers (ST) in secondary schools. Whereas previous studies with preservice classroom teachers support the value of MI in teacher education, there are no studies on preservice STs' MI in secondary classrooms. Consequently, the purpose of this study was to explore Finnish preservice STs' perspectives and experiences with MI in academic classrooms. In the spring 2018 semester, 28 female and 16 male subject teachers participated in an integrated approach titled Learning by Moving, which was introduced to infuse physical activity promotion into a required teacher preparatory course during their last semester before graduation. The program was a collaborative initiative between teacher educators teaching pedagogical and subject content, where seven preservice physical education and health education teachers through peer mentoring groups extended their teaching role to lead and to coordinate MI into academic classrooms. Over the course of 16 academic weeks, each ST completed at least two lessons with MIs in secondary classrooms. The research team collected data through focus groups discussions, formal semi-structured interviews, audiotaped workshops, and with field notes from classroom observations and informal discussions during the entirety of the project. Data were analyzed inductively using an interpretive approach. The findings showed that MI was a relatively new concept for most preservice STs, but everyone had used MI during their student teaching. The preservice STs' beliefs regarding MI in academic lessons was positively influenced by the experience. They also reported that secondary students asked for an active break. The project showed that it is possible with limited resources to change the beliefs of preservice ST and to support their implementation of MI into academic classrooms in secondary schools.

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## The development of subject-specific core competencies for Taiwanese initial physical educators and their supplementary measures of implementation

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Friday, 21st June - 15:57: (Nexus 158) - Oral Paper

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*Dr. Feng-Min Wei (National Taiwan Normal University), Prof. Deng-Yau Shy (National Taiwan Normal University), Prof. Ching-Wei Chang (National Taiwan Normal University), Prof. Ching-ping Lin (National Taiwan Normal University)*

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It was late until February 2016 when Taiwan government released the state-level guide of teacher professional standards (TPSs) since the standards-based teacher education policy had been adopted by the government in 2012. To fulfill the expectation of ensuring the quality of teachers, the TPSs should take subject professionals' perspectives into account and consider those issues relating to its implementation in practice. This study aimed to develop the subject-specific core competencies for Taiwanese initial physical educators (IPEs) and their supplementary measures of implementation, as well as to investigate the relating issues which must be concerned before those core competencies and supplementary measures were brought into practice. A three-stage of development model which comprises planning, consultation, and dissemination stages was established and five focus groups interviews were conducted during the development process. The participants of each interview were slightly different due to the particular objectives of each stage. All the focus groups interviews were recorded and transcribed before they were analyzed through classic analysis strategy (Krueger & Casey, 2015) and the trustworthiness of data interpretation was achieved through techniques in terms of triangulation, member checking, and peer debriefing. 11 physical education-specific core competencies were identified concentrating on content knowledge and pedagogical content knowledge, and each could be divided into two indicators and completed by two checking criteria. It is suggested that each physical educator's core competencies were graded into three levels according to the collected corresponding evidence. The relating issues of implementation could be induced into four themes: (1) conceptualization; (2) practical procedures; (3) evidence selection and adoption; (4) professional needs. Results of this study supported the ongoing policy tendency towards TPSs by developing clear core competencies for IPEs from a subject-specific perspective and highlighting critical issues while foreseeing those core competencies will be implemented in the teacher education system of Taiwan.

# **Physical Activity Patterns of University Staff**

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# Sedentarity at work in university employees: An analysis by accelerometry

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Friday, 21st June - 15:15: (Nexus 241) - Oral Paper

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*Mr. Gilles Dubru (Université de Liège), Prof. Marc Cloes (University of Liege), Mr. Julien Mottard (Université de Liège)*

## Background and purpose

Sedentarity lifestyle is a global public health problem. According to WHO (2008), it affects 31% of adults (28% men and 34% women) and is considered the 4th risk factor of death. It increases the risks of cancer, diabetes, heart disease ... The recommendations are currently not very clear except to minimize the time spend sitting or lying and to interrupt these periods every 90 to 120 minutes by joint mobilization. In the perspective of changing the habits of the employees of the University of Liège (ULiège), we analyzed the profile of their activity/physical inactivity by means of a questionnaire (Dubru et al., 2018). The purposes of the present study consisted to supplement the previous data using accelerometry and to prepare recommendations for the authorities of the institution.

## Methods

Accelerometers Actigraph GT3X+ were provided to 47 subjects working at the ULiège, selected through a stratified sampling respecting gender, age, and location of the workplace. Accelerometers were worn on the right hip for 7 days, day and night, as recommended by the literature (Migueles et al., 2017). Troiano et al. (2007)'s epochs and cut-points were chosen.

## Results

The subjects remained sitting or lying on average 7911 minutes ( $\pm 558$ ) per day. There are no significant differences by gender, age or location. The least sedentary days are Wednesday, Saturday and Sunday (day off). The most sedentary days are Mondays, Tuesday, Thursday, and Friday. At work, the least active hours are around 10am and 2pm. The data confirm the high sedentary rate previously identified by the questionnaires.

## Conclusion and implications

Sedentarity and physical activity are two distinct concepts. It is important to set up projects to increase physical activity but especially to reduce the sedentary situations of the employees of ULiège. Based on the findings, practical recommendations are proposed.

# PATTERN OF PREFERENCES, MOTIVATIONS AND BARRIERS ASSOCIATED WITH PARTICIPATION IN UNIVERSITY-BASED HEALTH ENHANCING PHYSICAL ACTIVITY (HEPA) PROGRAMME AMONG UNIVERSITY STAFF IN NIGERIA

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Friday, 21st June - 15:36: (Nexus 241) - Oral Paper

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*Prof. Joshua Umeifekwem (University of Nigeria, Nsukka, Enugu State, Nigeria / Department of Human Kinetics and Health Education), Dr. Nneka Okafor (University of Nigeria, Nsukka, Enugu State, Nigeria / Department of Philosophy), Prof. Efiog Samuel (University of Nigeria, Nsukka, Enugu State, Nigeria)*

**Background and purpose:** The importance of workplace physical activity programme has been well recognized in literature. Unfortunately, formal workplace Physical activity programme appears non-existent in Nigerian University especially due to indifference and lack of interest towards PA among staff. To rectify this anomaly, there is need to gain insight into staff interests on PA participation and establishment of Health Enhancing Physical Activity (HEPA) programme as precursor to any developmental effort in designing sustainable staff-oriented University-based Health Enhancing Physical Activity (HEPA) programme. This study therefore examined and isolated staff preferences, motivations and perceived barriers associated with participation and development of PA package in a University workplace. Corresponding research questions were formulated while three null hypotheses of no significant association were tested for age, gender, category and cadre of staff.

**Methods:** The Survey collected self-reported data from a sample of University staff ( $n = 678$ ) purposively recruited across four Universities in South-eastern Nigeria. The Instrument was a 27-item questionnaire consisting of researchers' constructed items, adapted items from Exercise Motivation Inventory (EMI) and Exercise Benefit and Barrier Scale. The internal consistency of the instrument using Cronbach's alpha yielded a reliability coefficient of 0.82 which was adjudged appropriate for use in the study. Frequency counts, Percentages and Chi Square  $\chi^2$  test for independence were used for data analysis.

**Results:** Results indicated that while most of the staff (97.3%) admitted that PA participation is beneficial, only 40.0% of staff was participating in PA programme across age, gender, staff category and cadre. Staff would prefer participating in HEPA programme mostly in organized groups (51.8%), twice weekly (36.7%), in the evenings (56.6%), walking routine (52.7%), sports and games (46.3%) and jogging (46.3%). Greater percentage of Staff reported weight Control (61.2%), feeling good (56.8%), spending time with friends (56.3%), and getting stronger, (55.8%) in that order as major motivations for wanting to participate in HEPA. Conversely, Time constraint (67.1%) was mostly reported as major hindrance to HEPA participation, followed by lack of resource (21.8%), and lack of motivation (20.4%). Chi-Square tests for independence revealed no significant association between age:  $\chi^2 (3, n=678) = .57, p=.71$ , gender:  $\chi^2 (1, n=678) = .38, p=.51$ , Staff category:  $\chi^2 (1, n=678) = .217, p=.32$ , and University staff interest to establish formal HEPA programme.

**Conclusions and implications:** There were similar patterns of expressed preferences, motivations and barriers to participation in HEPA among University staff irrespective of age, gender, staff category and cadre. Furthermore, personal and psychological considerations are crucial in developing sustainable university-based inclusive PA programme. The outcome of the study has implication for HEPA programme designs as the expected contents of the prospective PA programme framework based on staff PA preferences, motivations and perceived barriers would moderate reported differences across gender, age and category of staff. As a result, a homogeneous PA programme framework that is responsive to the observed preferences and motivations of staff was recommended as pivotal in designing inclusive University

*workplace physical activity policy. However, future research is suggested to focus on developing and trial testing of a model University workplace PA programme framework that is exclusively based on the specific findings of this study.*

**KEY WORDS:** Health Enhancing Physical Activity, Preferences, Motivation, Participation barrier, University staff.

# **Professional Preparation for Health Education**

## Health.edu - Cooperative planning on the topic of health in PE teacher education

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Friday, 21st June - 15:15: (Nexus 242) - Oral Paper

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*Dr. Clemens Töpfer (Friedrich-Alexander-Universität Erlangen-Nuremberg), Prof. Ralf Sygusch (Friedrich-Alexander-Universität Erlangen-Nuremberg), Ms. Julia Lohmann (University of Augsburg), Prof. Hans Peter Brandl-Bredenbeck (University of Augsburg), Prof. Julia Hapke (Eberhard Karls Universität Tübingen)*

### Background

In the fields of education and health research, top-down implemented concepts often fail to achieve the desired sustainability (Rütten et al., 2017). “Interactive-Knowledge-to-Action” offers an approach in which cooperative planning groups involve various stakeholders in the implementation process. In the Health.edu study (Capital4Health), cooperative planning is used as an implementation instrument on the topic of health in PE teacher education. Subject of the presentation is the analysis of PE teacher educators’ action-guiding beliefs and their changes within the intervention.

### Methods

Intervention: Two 18-month cooperative planning processes were carried out in the setting of PE teacher education including universities and PE teacher training. First, a common understanding on the topic of health (including contents, goals, methods) was discussed, then practical measures were developed and implemented. Evaluation: University lecturers (n=8) and PE teacher trainers (n=5) were surveyed before (t0) and after the intervention (t1) using video observation as well as problem-centered and stimulated recall interviews. The evaluation was based on qualitative content analysis.

### Results

At the content level, t0 shows a clear dominance of objective health topics (especially fitness), while t1 shows a higher sensitivity to subjective aspects (e.g. well-being). At the level of goals, a more differentiated understanding of sport-related health competence can be identified for t1. At the method level for t1, a higher degree of openness can be identified for cognitive activation and reflection phases in lessons.

### Conclusion

The present changes in PE teacher educators’ beliefs can be linked to the cooperative planning process. Overall, educators’ beliefs seem to be relatively change-resistant (subjective health topics and cognitive activation in particular).

### References

Rütten, A., Frahsa, A., Abel, T., Bergmann, M., de Leeuw, E., Hunter, D., Jansen, M., King, A. & Potvin, L. (2017). Co-producing active lifestyles as whole-system-approach: theory, intervention and knowledge-to-action implications. *Health promotion international*, 1-13. <https://dx.doi.org/10.1093/heapro/dax053>



## Health.edu – relationship between development of teachers' beliefs and students' competences concerning the topic health

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Friday, 21st June - 15:36: (Nexus 242) - Oral Paper

Saturday, 22nd June - 11:00: (Nexus 126) - Oral Paper

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*Mrs. Katharina Ptack (University of Bayreuth)*

### Background

Teachers' beliefs and didactical implementation are considered to be most important influencing factors on students' learning. In the field of education and health promotion it is well known that top-down-interventions often fail to implement innovations. Therefore, in the Health.edu-study a participatory approach with cooperative planning was chosen, in which various stakeholders (principals, PE-teachers, students, scientists) jointly developed and implemented methodological-didactical measures on health for PE classes. The aim was to change teachers' beliefs and didactical implementation in the sense of sport-pedagogical demands and thereby to improve students' competences concerning a self-reliant practicing of health-enhancing physical activity (sport-related health competence [SrHC]). The core of this paper is the evaluation of the relationship between the change in teachers' beliefs on the topic health and the change in SrHC of students through a one-year lasting intervention.

### Methods

Evaluation followed a mixed-methods design. PE teachers (n=8) were interviewed and video-observed before and after the intervention. The evaluation was based on qualitative content analysis. Students (n=233) were investigated in a pre-post-test design using a standardized paper-pencil-questionnaire designed to assess SrHC (Töpfer, 2017). T-tests and effect sizes (Cohen's d) were calculated for mean differences between SrHC pre and post.

### Results

As a result of cooperative planning, six teachers changed their beliefs and didactical implementation in the sense of sport pedagogical demands, accompanied with a significant improvement of SrHC of their students (d=1.0/1.3). Students' SrHC of the other two teachers did not improve significantly (d=0.2).

### Conclusion

Results confirm previous findings on the role of teacher beliefs for student learning and show that the chosen participatory approach was partly successful. Further analysis must deal with the question about sustainability of these effects and the role of successful cooperative planning.

### References

Töpfer, C. (2017). *Sport-related health competence: a competence model and test instrument for PE*. Available under urn:nbn:de:bvb:29-opus4-90521

# **Symposium 12**

## **Continuing Professional Development in PE: Developing and Testing Innovative Approaches aimed at the Motivational Climate in PE lessons**

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Saturday, 22nd June - 09:30: (Nexus 239) - Symposium

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Dr. Menno Slingerland (Fontys School of Sports Studies), Dr. Lars Borghouts (Fontys School of Sports Studies),  
Ms. Femke Van Duyse (Ghent University)

According to the 2009 AIESEP Position Statement (Armour, 2009) on Continuing Professional Development (CPD), Physical education (PE) teachers have both the right and the responsibility to be engaged in effective CPD throughout their careers. In addition, it states that AIESEP is committed to finding better ways of contributing to, supporting and disseminating an emerging evidentiary base that can inform the design and delivery of effective CPD. The purpose of this symposium is to contribute to this aim, by presenting research into innovative CPD-approaches in PE within the Dutch linguistic region of Flanders (Belgium) and the Netherlands.

Several scholars have suggested that current CPD-practices within PE are limited to discrete activities, with limited impact on professional practice and student learning (Aelterman, Vansteenkiste, Van den Berghe, De Meyer, & Haerens, 2014; Armour, Quennerstedt, Chambers, & Makopoulou, 2015; Slingerland et al., 2016). Comparative research in three European countries concluded that in general, PE-teachers are not very well supported in their professional development during the course of their career (Armour, Makopoulou, & Chambers, 2012). This underlines the importance of developing and testing effective approaches to CPD in PE, which can help to bridge the perceived gap between theory and practice (Armour et al., 2015).

In this symposium, we will present data on the results of a large scale, mixed methods study into the feasibility and effectiveness of the 'Lesson Study'-approach for CPD, and user research into the usability and appreciation of an innovative online CPD-learning environment. These studies were conducted by Ghent University (B) and Fontys University of Applied Sciences (NL), with a content focus on the motivational climate in PE lessons from the perspective of the two dominant motivational theories in the field, i.e. Achievement Goals Theory (AGT) (Duda & Nicholls, 2004; Pintrich, 2000) and Self Determination Theory (SDT) (Deci & Ryan, 2000).

# **Pre-Service Teachers' Beliefs and Dispositions**

## Preservice teacher's perceptions of personal physical education experiences

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Saturday, 22nd June - 09:30: (Nexus 126) - Oral Paper

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*Dr. Susan Barnd (Metropolitan State University of Denver), Ms. Elaine Wotherspoon (University of the West of Scotland – Ayr)*

**Background:** As a result of increased interest in school physical education (PE), research focused on preservice PE teachers has become a frequent occurrence. This research often conveys concern over the lack of confidence within preservice teachers to deliver PE. Morgan & Bourke (2008) offer that personal school PE experiences may play an influential role in the development of teachers' confidence in PE. Understanding the experiences of preservice teachers may instigate revised teacher preparation content.

**Purpose:** The purpose of this study was to examine the perceptions of physical education preservice teachers (PST) from Scotland and the United States concerning their own elementary and secondary physical education program outcomes. Specifically, the study focused on the PST perceptions of numerous outcomes that define a quality physical education program (NASPE, 2009). Participants were asked to reflect on their personal PE experiences and rate the impact of these experiences against a series of statements.

### Research Questions

The purpose of this study was to analyse the backgrounds of PST's and their perceptions and beliefs related to the subject and profession. The specific questions that the study intends to answer are:

1. Do pre-service education teachers (PST) believe their own experiences in elementary and secondary education classes were a positive experience?
2. Do PST from Scotland and the United States have similar beliefs in their elementary and secondary physical education classes being a positive experience?
3. Do pre-service education teachers believe that their own experiences in elementary and secondary physical education classes: increased their sport and movement skills?

### Methods:

Survey data was collected at two sites (one in Scotland and one in America) from preservice teachers within teacher education programs. The survey asked a series of open ended and closed questions where participants were asked to reflect on their personal PE experiences and rate the impact of these experiences against a series of statements. Data was organized by the participant's answers and checked for any anomalies in the data. Answers to open questions were then analyzed thematically and closed questions were analyzed for descriptive and comparative statistics. In total 154 surveys of PE pre-service teachers from Scotland and the United States were gathered. All of the participants were registered students in compulsory classes in a teacher preparation program. Across the sample eighty-nine students from the USA were enrolled in an Introduction to Teaching Physical Education class were invited to participate in the study across six semesters. Sixty-four students from Scotland were in their 3rd year of undergraduate degree in Primary Teaching. Across the study the participants were split 53% female and 47% male. The breakdown of survey respondents from the United States was 64 males and 25 females. The 64 students from Scotland included 55 females and 9 males. This is reflective of the teaching population in Scotland which at the primary level is female dominated.

**Results:** The findings overall, suggest that preservice students believe their elementary PE program was generally enjoyable and instructional in nature. At the secondary level, a significant number of the preservice PE students indicated a dissatisfaction of the quality or instruction. The findings indicate that in order to build confidence in

preservice teachers, teacher preparation programs would be well served by taking account of the personal experiences of the teachers themselves.

**Conclusions:** Study findings suggest that for more than a quarter of the participants two of the major outcomes of physical education may not be being addressed in elementary or secondary physical education. The outcome from the study indicated that the survey participants are aware of outcomes of PE but are saying it is not always happening. This made the researchers ponder if this is a trend across the US and Scotland or is it representative of this population only, and if so why? Also, is the cycle of lower quality physical education for future teachers being perpetuated with the lack of outcomes of lifelong physical activity enjoyment and the development of motor skills for future generations? Harvey et al (2018) highlight that the values and beliefs that form the foundation for student teachers are often prior to engaging in formal teacher education and have a ‘major influence’ on the effectiveness of a Physical Education Teacher Education program. Significantly, these results have implications for teacher education programs being able to ‘break the cycle’ within physical education

## Initial validation of Basic Needs Satisfaction Scale for Physical Education Teachers - Greek version

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Saturday, 22nd June - 09:51: (Nexus 126) - Oral Paper

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*Dr. Yannis Tzioumakis (University of Thessaly/ School of Physical Education and Sports Science), Dr. Georgios Gorozidis (University of Thessaly/ School of Physical Education and Sports Science), Dr. Charalampos Krommidas (University of Thessaly/ School of Physical Education and Sports Science), Prof. Athanasios Papaioannou (University of Thessaly/ School of Physical Education and Sports Science)*

According to self-determination theory, teachers' basic needs satisfaction is essential for the quality of their motivation, teaching and work behavior. Since there is a lack of valid and reliable instruments measuring teachers' basic needs satisfaction in the Greek context, we evaluated the factorial validity and internal consistency of the Greek version of the Basic Needs Satisfaction Scale for Teachers (BNSST; Longo et al., 2016). Standard back-translation procedures were followed, and the instrument was adapted to the specific context. BNSST comprises three subscales reflecting the satisfaction of teachers' basic needs for autonomy, competence, and relatedness. Participants were 109 physical education (PE) pre-service teachers who participated in the school practicum module and responded voluntarily to anonymous questionnaires. The psychometric properties of the instrument were evaluated through confirmatory factor analysis (CFA), Cronbach's alphas, and latent variables' associations. CFA results supported the validity of the 9-item, 3-correlated factors model, producing excellent goodness of fit indices (TLI=1.00, CFI=1.00, RMSEA=.005,  $\chi^2=24.07$ ,  $df=24$ ,  $\chi^2/df=1.003$ ). Internal consistency analysis produced acceptable values with alphas at .80, .67, .71 for autonomy, competence, relatedness satisfaction scales respectively. All three needs were positively related to each other ( $r>.40$ ,  $p<.05$ ). The external-criterion and predictive validity of the scales were examined through their latent variables correlations with "Beneficence" and "Cooperation willingness" scales (TLI=.937, CFI=.952, RMSEA=.058,  $\chi^2=109.36$ ,  $df=80$ ,  $\chi^2/df=1.37$ ). Expectedly, it emerged that the satisfaction of all teachers' basic needs is positively related to their sense of beneficence and willingness to cooperate with colleagues. Interestingly, SEM analysis (TLI=.991, CFI=.993, RMSEA=.023,  $\chi^2=50.72$ ,  $df=48$ ,  $\chi^2/df=1.06$ ) suggested that only relatedness satisfaction could predict positively PE teachers' cooperation willingness ( $r=.44$ ,  $p<.05$ ). The present findings suggest that the BNSST-GR has good psychometric properties and provide initial support for instruments' validity and reliability. This kind of measurement may prove useful in examining Greek PE teachers' basic needs satisfaction.

# Qualification of prospective physical education teachers for inclusive physical education – development and evaluation of an academic didactical concept

Saturday, 22nd June - 10:12: (Nexus 126) - Oral Paper

*Prof. Jan Erhorn (Osnabrück University), Ms. Wiebke Langer (Osnabrück University), Ms. Leonie Moeller (Osnabrück University)*

## Introduction

The demand for inclusive education is an essential component on the Global Education Agenda 2030 which was passed by the United Nations in 2015 and is increasingly gaining importance in specialist discourse.

Qualifying physical education (PE) teachers for inclusive PE poses a central challenge for the didactic approach of teaching and researching sports. Thus far, there is neither an existing model of professional competencies for PE teachers for inclusive education, nor a concept for corresponding teacher training adjusted to the German educational system.

Therefore, the goal of the Federal Ministry of Education and Research's (BMBF) funded project, within the guideline for sponsorship, "Qualification of pedagogical specialists for inclusive education" is to develop and evaluate a competence-based university didactical concept for the imparting of professional competencies for prospective PE teachers (Baumert & Kunter, 2011; Kunter et. al, 2011).

## Research design and methods

Professional competencies lay out the ability to master specific pedagogical, professional situations under varying conditions. They are based on dispositions which need to be adequately transferred into teaching. For this to happen, situational skills of perception, interpretation and decision making are required (Blömeke, Gustafsson & Shavelson, 2015; Bromme, 2008; Oser & Bauder, 2013).

Firstly, following this system, typical inclusive situations in PE classes are identified at six schools in total (primary and secondary) based on a videographic investigation. These are then reconstructed through focused interviews, taking into account the perspectives of those involved in the situations. The reconstruction of the inclusive situations and the accomplishment of the performed actions, as well as the perceptions, interpretations, decisions and underlying dispositions are then subjected to a normative-reflexive analysis within the context of an expert discourse. Based on this, a model of professional competencies for inclusive PE is created. This model forms the foundation for the development of an academic didactic teaching approach which encompasses a seminar and the practical semester with an accompanying seminar in the master programme. The efficacy of the course takes place in a trial control group-design with three times of measurement, for which an appropriate test procedure is being developed.

## Findings and future prospects

In addition to an overview of the research design, findings of the competence model development are presented in the oral presentation. These sketch out the academic didactic teaching approach and explain the test procedure with the goal of discussing the highlighted perspectives of a qualification of prospective PE teachers for inclusive PE lessons including its international significance.

## Key words

Academic PE teacher training, professional competencies, inclusive physical education

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# **Testing and Training of Adolescent Athletes**

## Cardiac Adaptation to Mono fin swimming Training in prepubertal Athletes

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Saturday, 22nd June - 09:30: (Nexus 237) - Oral Paper

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Prof. Magdy Abouzeid (Alexandria University, Faculty of Sports Education, Alexandria, Egypt.)

**Background:** A high level of intensive physical training can be associated with structural and functional myocardial adaptation-the so-called athlete's heart. little is known about the influence of Monofin swimming training on cardiac structure and function for child athlete.

**Methods:** 14 elite child swimmers aged 12.1 years, took part in intensive swim training, 36 weeks, 6 times per week, 60 to 90 min per unit. All subjects underwent two-dimension-mode and Doppler echocardiography before and after intensive swim training.

**Results:** There was significant difference ( $p < 0.01$ ) and percentage improvement for all echocardiography parameter after swim training, the diastolic and systolic diameter and thickness of the left ventricular was increased. These findings strongly suggest that, several cardiac adaptation can occur in prepubertal children as a result of intensive swim training.

**Conclusions:** Monofin training is an effective sport activity to enhance heart athletes' for children.

# A novel aerobic test, 5-minute-pyramid-test, useful in school to monitor VO2max.

Saturday, 22nd June - 09:45: (Nexus 237) - Oral Paper

*Mrs. Cecilia Stalman (The Swedish School of Sport and Health Sciences, GIH), Dr. Johnny Nilsson (The Swedish School of Sport and Health Sciences, GIH, Department of Neuroscience, Karolinska Institutet, Stockholm, Sweden), Ms. Anna Ryhed (The Swedish School of Sport and Health Sciences, GIH), Mr. Manne Godhe (The Swedish School of Sport and Health Sciences, GIH), Dr. Eva Andersson (The Swedish School of Sport and Health Sciences, GIH, Department of Neuroscience, Karolinska Institutet, Stockholm, Sweden)*

## A novel aerobic test, 5-minute-pyramid-test, useful in school to monitor VO2max.

*Cecilia Stålman<sup>1</sup>, Johnny Nilsson<sup>1,2</sup>, Anna Ryhed<sup>1</sup>, Manne Godhe<sup>1</sup> and Eva Andersson<sup>1,2</sup>*

*1-Swedish School of Sport and Health Sciences and 2-Department of Neuroscience, Karolinska Institutet, Stockholm, Sweden.*

**Background and purpose.** Aerobic fitness is strongly linked to increased health. The purpose was to study the results of and the correlation between a new and simple aerobic test, i.e. 5-minute-pyramid-test (5MPT) and a maximum oxygen uptake test (VO2max) on a treadmill in upper secondary school students. This 5MPT has previously been shown to have a strong correlation with VO2max among both young and old adults.

**Methods.** Seventeen upper secondary school students were included (12 women, 5 men, 16-18 years). Two separate 5MPT were performed and one maximal test on a treadmill with direct measures of maximal oxygen uptake (Oxycon Pro). In the 5MPT, the person moves from floor level as quickly as possible over a pyramidal stair ramp, with a maximal height of 0.62m and a total distance of 5.5m. The number of turns was recorded for 5 minutes, after which a formula for developed effect was calculated.

**Results.** A significant relationship ( $r=0.90^*$ ) was found between power at 5MPT and VO2max on the treadmill. No significant difference was found in power between the first and the second test of 5MPT ( $115.6 \pm 22.0W$  and  $116.1 \pm 22.5W$ , respectively, and  $104.9 \pm 13.4W$  vs  $106.0 \pm 14.4W$  for women and  $141.1 \pm 18.9W$  vs  $141.6 \pm 23.3W$  for men). Direct measured VO2max was for women:  $2.68 \pm 0.38L/min$  and  $43.3 \pm 6.3ml/kg/min$  and for men:  $4.07 \pm 0.76L/min$  and  $56.6 \pm 7.5ml/kg/min$ . Through an equation (based on linear regression) the VO2max (x-axis) for this group of individuals can be calculated based on the results for 5MPT-power (y-axis).

**Conclusions and implications.** There was a strong correlation between the two different variants of aerobic tests. No learning effect was seen between a first and a second test opportunity of 5MPT. This relatively simple and inexpensive test, called 5MPT, can be used among this group of individuals, for example in schools, to investigate and monitor the development of aerobic capacity, which is related to health.

# PHYSIOLOGICAL ADAPTATION OF GASTROCNEMIUS, QUADRICEP AND HAMSTRING MUSCLES FOLLOWING RESISTANCE EXERCISE AMONG ADOLESCENT MALES

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Saturday, 22nd June - 10:00: (Nexus 237) - Poster Presentation

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*Dr. Kaabu Muazu (Jigawa State College of Education, Gumel), Mr. Usman Abdullahi (Jigawa State College of Education, Gumel), Mr. malam hamisu (Jigawa State College of Education, Gumel)*

## Abstract

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## Background

Resistance exercise is used to increase muscular hypertrophy, strength, power and endurance as well as improvement of muscle functional capacity and muscle wasting disease. However, the training duration required for muscle hypertrophy to manifest is unclear or controversial. The purpose of the study is to examine the effect of varied training durations of Progressive Resistance Exercise (PRE) among adolescents male in inducing muscular hypertrophy (girth). The study hypothesized that participants would not differ significantly in muscle girths across varied durations of PRE.

## Methods

Seventy two volunteer male participants of mean age  $16.44 \pm 0.73$  years were recruited using random sampling technique. The study was conducted using repeated measures design, in which the participants' gastrocnemius (Calf), quadriceps/hamstring (Thigh) girth muscles were measured at baseline, within and post-training durations of PRE. The measurements (girths) were subjected to Analysis of Variance Repeated Measure using SPSS.

## Results

The results indicated a significant difference between the baseline girth measurement and that of training durations of exercise ( 4 weeks, 8 and 12 weeks) in gastrocnemius (calf) ( $F_{(3, 68)} = 14.39$ ,  $P < 0.05$ ) and quadriceps/hamstring

(thigh) muscles ( $F_{(3, 68)} = 12.59$ ,  $P < 0.05$ ). It was revealed that 12 weeks of PRE produced highest increase in muscle girth (hypertrophy) compared with other training durations.

#### Conclusion

Progressive resistance exercise training of 12 weeks might result in achieving some optimal level of hypertrophy (girth) of the gastrocnemius and quadriceps/hamstring muscles compared with other training durations. Clinical exercise physiologist and related fields may equally consider these durations in prescribing exercises for individuals with musculoskeletal atrophy.

**Keywords:** Resistance exercise, Duration, Muscle girth

# **Adolescent Athletes and Social Relations**

## **A comparison of school engagement and emotional support among student-athletes and non-athletes in lower secondary school**

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Saturday, 22nd June - 09:30: (Nexus 275) - Oral Paper

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*Mr. Joni Kuokkanen (Åbo Akademi University), Prof. Jan-Erik Romar (Åbo Akademi University), Prof. Mirja Hirvensalo (University of Jyväskylä)*

The mid adolescent period (13-15 years), is a crucial time for both academic and athletic development. During this phase student-athletes in addition to honing their athletic talents need to also work on their academic studies, given the uncertainty of ultimately attaining a professional athlete career. Previous Dual Career (DC) research point to challenges in combining school with sports. However, youth sport participation has also been shown to have a positive effect on academic and social development. Drawing on the stage-environment fit theory; we hypothesize that dual enrollment, in school and sports, contribute to developmentally appropriate learning opportunities and extended social interactions. To test this hypothesis, we assessed how student-athletes and non-athletes differ in background characteristics, academic preparedness, emotional support from significant others and school engagement. Further, we measured how academic preparedness and emotional support from significant others are related to school engagement in both groups.

Student-athletes (N=311) and non-athletes (N=290) from 15 sports-oriented Finnish lower secondary schools answered self-report questionnaires at the beginning of 7th grade. School engagement was conceptualized as control and relevance of schoolwork, and future academic aspirations. Emotional support consisted of emotional support from peers, teachers and family. Multigroup structural equation modeling (SEM) was used to test measurement invariance between and within-groups of student-athletes and non-athletes

Results indicated that student-athletes had higher grades, perceived being in control of schoolwork and schoolwork as more relevant than non-athletes. Student-athletes also experienced higher levels of emotional support from peers and family, which together with prior GPA and higher socioeconomic status partly explained the differences in control and relevance of schoolwork between the groups.

This study indicates that investments made in developing a new DC system in Finnish lower secondary schools was beneficial for adolescent student-athletes school engagement and social relations. School engagement facilitates subsequent academic success and career opportunities.



## **Running “alone together” or “together alone” in use of social media: an interview study about running online with digital competent runners**

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Saturday, 22nd June - 09:51: (Nexus 275) - Oral Paper

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*Dr. Urban Carlén (University West)*

People who run express themselves through their participation as being a runner among other runners. Therefore, running can be understood as a social and cultural activity constituted by the runners themselves. When digital competent runners use social media, such as Facebook groups and Instagram etc., they build a bridge for others to cross over, as it extends the conditions for what it is to be a runner. By sharing knowledge and experiences about running online, they construct social relations with others, who can read and comment on their training and performance. As they post online, they use material that they produce themselves, as texts, still and moving pictures, smileys/emojis etc. to make meaning in short stories about their running practice. The aim of the study is to examine the meaning-making of social media among runners. How do runners make meaning by participating in social media? Totally twelve runners, with various capabilities to run and use social media, were attracted to contribute in semi-structured interviews. All interviews explored their running history, goals in running, digital competence, knowledge sharing and running performance, and use of social media in depth. The data material was analyzed by using Practical Epistemological Analysis (PEA). In order to understand meaning-making, the meaning is found in the practice that people are involved in, as they respond to this social practice through their actions. The study result shows that the use of social media in running offers extensional conditions for runners to talk about running and to express their running identities. This extends the understanding of what it means to run alone and/or together with others. Runners make meaning of social media that reflects not only their personal records over a distance and/or accomplished medals, but rather what kind of runner they are, such as elite, exercisers or extreme runners. Digital competent runners allow themselves to run alone, but are still in support of the participating runners in social media. The use of social media provides support for continuous training and reach individual goals as the runners contribute with and receive inspirational posts to express themselves, show good performance and for some, attract sponsors to support their running practice. The organization of running matters as social media offers flexibility for both lonely runners and/or running teams to coordinate their running in a network of runners independently of others.

# **Adolescent Physical Activity Patterns**

## **Reported physical activity level and aerobic fitness are associated with night sleep duration among adolescents 13-15 years old.**

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Saturday, 22nd June - 09:30: (Nexus 154) - Oral Paper

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*Dr. Ann-Christin Sollerhed (Kristianstad University), Dr. Pernilla Garby (Kristianstad University)*

### **Background and purpose**

Physical activity (PA) levels have decreased and sedentary behavior has increased among adolescents (Owen et al, 2010). Concurrently, sleep duration and sleep quality have decreased (Matricciani et al, 2012) and sleep problems have increased (Inchley et al, 2016).

The aims were to investigate reported PA levels and perceived aerobic fitness in relation to reported night sleep duration among ordinary non-clinical adolescents.

### **Methods**

A cross-sectional survey was performed in Sweden among 1518 adolescents 13-15 years old (50.7% girls). A questionnaire with questions about sleep duration, tiredness/alertness during the school day, PA habits and perceived aerobic fitness was used. The participation rate was 72.4%. Significance level  $p < 0.05$ .

### **Results.**

The results showed that 25% of the adolescents exercised never or seldom (low PA level), 39% twice or three times per week (moderate PA level), and 36% four times or more per week (high PA level). In the high PA level group 66% felt alert during the school day, moderate level 61% and low level 52% ( $p < 0.000$ ). 48 % of the adolescents with high PA level had >8 hours night sleep duration, 43% of moderate level and 37% of low level. 49% of the adolescents who assessed their aerobic fitness to be good had >8 hours sleep vs 41% among those with lower perceived fitness ( $p = 0.016$ ).

### **Conclusion and implications**

PA levels were associated with sleep duration, the higher PA levels the longer sleep duration. Decreased sleep duration and low sleep quality are risk factors as well as low levels of PA and sedentary behavior. Promotion of PA could be an effective, non-pharmacological approach to improvement in sleep duration and better sleep for youth.

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## Adolescent girls' physical activity after school hours and the type of physical activity performed in leisure time

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Saturday, 22nd June - 09:51: (Nexus 154) - Oral Paper

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*Ms. Mari Kääpä (University of Jyväskylä), Dr. Sanna Palomäki (University of Jyväskylä), Mr. Henri Vähä-Ypyä (UKK-institute), Dr. Tommi Vasankari (UKK-institute), Prof. Mirja Hirvensalo (University of Jyväskylä)*

**Purpose:** Adolescents do not engage in sufficient physical activity, and girls' levels of activity are declining more than boys', as is well reported in Finland and other countries. This study aimed to objectively measure girls' physical activity in afternoons and evenings and to determine the variety and types of girls' activities, including the role of Physical Education (PE) homework.

**Methods:** This study was conducted in a mid-sized lower secondary school in central Finland as part of the PE Homework Study. Physical activity (accelerometry and self-reported) data were collected from 87 lower secondary school girls. The girls were divided into three groups according to their MET (metabolic equivalent) values, and an analysis of variance examined the differences between the terciles in regard to physical activity, after-school activity, and patterns of physical activity (organized sport activities, occupational activities, self-initiated activities, and PE homework). The girls' preferred activity types were gathered from self-reported diaries.

**Results:** The girls' physical activity intensity was mainly at a moderate level (3–6 METs), but the differences between the activity terciles during after-school hours occurred at various times and with various patterns and types of physical activity. The first hours after school were the most active. The low-activity girls' after-school METs were less than half of their total METs, and those girls did more occupational activities than the other terciles. High-activity girls were active in organized sport activities. In self-initiated activities, body conditioning exercises and running or jogging were the top three activities in all terciles. While the high-activity girls did PE homework the greatest number of times (1.97 occasions/girl/week), the middle-activity girls spent the most time on PE homework (40 min/girl/week). The low-activity and high-activity girls' PE time was 25 min/girl/week.

**Conclusions:** Significant differences were found between girls in different activity terciles in their after-school activity time periods as well as in their patterns and types of physical activities. Recognizing these patterns might help the influential adults in adolescents' lives to encourage girls to be active in a manner of their own choosing. PE homework assignments have the potential to increase adolescent girls' physical activity during after-school hours.

**Implications and Contribution:** Studying adolescent girls' after-school physical activity in distinct activity terciles with an inside view of their types and patterns of physical activity offers a new perspective on girls' physical activity. Using PE homework to encourage activity in adolescent girls provides a new approach to after-school physical activity.

## Overestimation of physical activity among young people: Does age and gender play a role?

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Saturday, 22nd June - 10:12: (Nexus 154) - Oral Paper

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*Mrs. Melanie Eckelt (University of Luxembourg), Ms. Djenna Hutmacher (University of Luxembourg), Prof. Georges Steffgen (University of Luxembourg), Prof. Andreas Bund (University of Luxembourg)*

**Background and purpose:** Due to the continuous decrease of physical activity (PA) of people in industrialized countries (Kohl et al., 2012), PA behavior and its psychological foundations has become a key issue in health-related research. Studies show that most people tend to overestimate their habitual PA (Skender et al., 2016), however, there is very little research on the role of demographic variables in this respect. Therefore, the aim of this study was to examine whether age and/or gender affect the (over)estimation of PA among children and adolescents.

**Methods:** Data of 75 students (38 girls and 37 boys, 10 to 18 years) of various primary and secondary schools were randomly included in the study. Habitual PA was assessed through an online self-report questionnaire (Schmidt et al., 2017) as well as by wearing an accelerometer (ActiGraph GT3X-BT) over seven consecutive days. A multiple regression analysis was used to analyze the impact of age and gender on the accuracy of PA estimation.

**Results:** The students reported being active for at least 60 minutes on average on  $4,0 \pm 2,1$  days per week, whereas the accelerometer data verify only  $1,8 \pm 1,6$  days per week. Thus, a majority of 76% of the children and adolescents overestimated and 9% underestimated their PA. Almost 15% were correct in their PA estimation. However, results of the regression analysis indicate neither an effect of age ( $b = .003, p > .1$ ) nor of gender ( $b = -.070, p > .1$ ). **Conclusions:** Overestimation of PA is common not only among adults but also among children and adolescents. However, this misperception appears to be independent of age and gender, at least in the age group considered here. Future studies should examine further demographic and psychological variables in order to explain why most of the people significantly overestimate their habitual PA.

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# **Curricular Models, Differentiated Instruction and Digital Tools in PE**

## **Differentiated Instruction for the Students with Special Educational Needs in Physical Education: Influence of Individual and Contextual Factors**

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Saturday, 22nd June - 09:30: (Nexus 155) - Oral Paper

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*Prof. Claudia Verret (University of Quebec in Montreal), Prof. Geneviève Bergeron (Université du Québec à Trois-Rivières), Prof. Johanne Grenier (Université du Québec à Montréal), Prof. Line Masse (Université du Québec à Trois-Rivières), Prof. Cédric Roure (Université catholique de Louvain)*

**Background.** In 2010, 65% of students with special educational needs (SEN) were attending regular classes in the province of Quebec in Canada (MELS, 2010). This represents a challenge for physical education teachers (PE) (Verret et al., 2017). Differentiated instruction is conceptualized as a promising avenue to meet the diverse needs of students, but very little research exists in PE (Ellis et al., 2009).

**Method:** The aims of this study were to describe declared differentiated instruction practices and to investigate individual and contextual variables influences. The sample consisted of 245 PE teachers (46% women, average 15 years of experience, 27% high school) from 50 school boards. They have described how often they implement 19 differentiated instruction practices using a five-level Likert scale in an online questionnaire (Verret et al., 2018). Differentiated instruction total score scale as well as three sub-scales (knowledge of needs, pedagogical adjustments and monitoring student progress) were analyzed for individual and contextual variables.

**Results:** Descriptive analyses showed that more than 50 % PE teachers had never received initial or in-service training concerning students having SEN. In addition, 67% never participated in the development of an intervention plan for these students. Mean scores for all scales were close to the average. Independent sample *t*-tests showed no difference for all scales when controlled for individual variables (level of education, gender, training received). Results of one-factor ANOVA indicated that teachers with more than 19 years of experience use more frequently pedagogical adjustment practices than beginners having less than 6 years of experience. **Conclusion:** PE teachers appeared to be adopting differentiated instruction practices at some level. Unlike current literature, there was no difference by gender, level of education or training received. These results highlight factors in favor of the use of differentiated instruction in PE setting.

## Digital tools as learning resources in Physical Education in upper secondary school

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Saturday, 22nd June - 09:51: (Nexus 155) - Oral Paper

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*Ms. Annemari Svendsen (University of Southern Denmark)*

**Background and purpose:** In today's classrooms digital technologies and digital media enable an unlimited number of learning resources. This is also the case in Physical Education (PE) where especially *digital tools*, in the form, for example, of apps designed to track body movements and geographical location or websites designed for logging information about different health behaviors, are increasingly used. Digital tools may be thought of as practical and useful instruments to support learning. However, several researchers emphasize that digital technologies – among these digital tools – are not neutral, objective sources but complex phenomena, which embody and reconstruct values, relations and discourses. Pursuing this line of thinking, this study consider digital tools and the websites they are embedded in as 'educational texts' and in that regard powerful mediators of discourses that influence knowledge construction in PE.

**Methods:** Using the theory of the pedagogic device from Basil Bernstein and theoretical grips taken from critical discourse analysis this study conducts, as a case-in-point, an in-depth comparative analysis of two digital tools that are free of charge and recommended for teaching Physical Education (PE) in upper secondary schools in Denmark on a website hosted by the Danish Ministry of Education for teaching PE in upper secondary schools in Denmark: strava.com and iform.dk.

**Results:** The analysis illustrates how very different training discourses are embedded in these two digital tools. The analysis thus illustrates how digital tools are complex learning resources, which carry with them a set of ideas about training, the individual who is training and their actions related to training.

**Conclusions and implications:** These digital tools bring content into the classroom that potentially induce students to view their bodies and their physical activities in ways that to some degree work against the aims of PE. The study thus provides a picture of some general educational issues related to the use of digital tools in PE.



# **Professional Preparation for Physical Literacy**

## **Increasing Professional Preparation Though Purposeful Practice: Integrating TGFU and TDFU across the PETE Curriculum**

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Saturday, 22nd June - 09:30: (Nexus 156) - Oral Paper

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*Dr. Tess Armstrong (Grand Valley State University), Dr. Ingrid Johnson (Grand Valley State University)*

**Problem Statement:** Teaching Games for Understanding (TGFU) is a globally utilized approach to teaching skills and tactics that increase physical literacy. Teaching Dance for Understanding (TDFU), was recently developed in Canada, and has similar goals to increase physical literacy. At our institution, these curricular models were taught in isolation in two separate courses, but steps were taken to write grants and revise courses to better enhance the learning experience of undergraduate physical education teacher education (PETE) students. Emphasis has been on similarities of both models' frameworks, and strategies to promote confident and competent movers for a lifetime. **Research Statement:** How can faculty increase perceptions of professional preparation by purposefully integrating two similar curricular models in two separate courses?

**Research Methods:** This is a qualitative, critical action research study. An action plan was created which included identifying courses where the TDFU and TGFU models could be taught purposefully, then identifying grant sources for teaching innovation funds to enhance faculty content knowledge and teaching effectiveness. Data was collected through student written reflections. Student reflections were analyzed for themes, and actions have been made to refine, improve, and maintain teaching strategies.

**Results:** Preliminary results indicate that students enrolled in both TFU courses at the same time are better able to make connections between the two models, and find value in approaching teaching from this TFU lens.

**Discussion:** Because of this critical action research study, faculty were better able to link content between two courses, including creating visual representations of both models for students to interact with, and utilizing purposeful terms and references to link the two models for students. Students enrolled in the two PETE courses simultaneously indicated that they could make connections between the two models, leaving the researchers to question if these courses should be co-requisite classes in the future.

## Making Physical Literacy a Priority in Physical Education Teacher Education

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Saturday, 22nd June - 09:51: (Nexus 156) - Oral Paper

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*Dr. David Chorney (University of Alberta)*

As a professor of curriculum and pedagogy for physical education in the Department of Secondary Education in the Faculty of Education at the University of Alberta, this presentation is intended to provide insights into the practices that are valued and instilled into the preservice teachers who are specializing in the teaching of physical education at the University of Alberta. Two influential bodies of research, that provide a context for much of the teaching and learning within the pedagogy courses, stem from the literature on *physical literacy* and *teaching games for understanding*. Physical and Health Education Canada is a key national advocate of physical literacy and agree with the definition as outlined by (Whitehead, 2016) stating that, Physical Literacy is the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities. This presentation will highlight how physical literacy and TGFU frame the students' learning and how it can be used in their future careers.

The main points of the presentation are to highlight how physical literacy and TGFU principles are weaved throughout the various required methods courses taken by all PE majors and minors. Providing an overview of specific assignments directly related to physical literacy and the teaching and learning of fundamental movement skills will be shared, along with an overview of how assessment is tied to these topics will be highlighted.

This proposed presentation directly relates to two of the conference themes: 1)Physical Education and Physical Literacy, and 2)Professional preparation for Health, Physical Education and Physical Activity.

The implications of this presentation will be for all attendees to reflect on their current practices as they relate to teaching students or preparing future teachers of physical education. To come away with an understanding of how physical literacy can and does influence preservice teachers' thinking.

## Physical Education, Physical Literacy, and Professional Learning: Beyond Complex

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Saturday, 22nd June - 10:12: (Nexus 156) - Oral Paper

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*Dr. Kirsten Petrie (The University of Waikato), Dr. Clive Pope (The University of Waikato), Dr. Darren Powell (The University of Auckland)*

In 2016 Sport New Zealand began piloting a school-based programme to enhance physical education (PE), physical activity (PA), physical literacy (PL) and sport for young people. Two sites compiled of school clusters commenced the initiative. Under the title *Play.sporta* workforce of facilitators and mentors recruited from schools and activators based in regional sports trusts were charged with providing professional learning in participating schools.

Alongside the implementation of the programme in the West Auckland site, was an evaluation-in-action research project underpinned by Collaborative Participatory Action Research. The evaluation specifically focused on the enactment and collective learnings of the workforce and school communities during the first two years of *Play.sporta*. Data collection was gleaned from meetings between evaluation team members and the workforce, workforce members' reflective logs, interactions with Principals, teachers, students and associated staff in schools, school policy and planning documentation, amongst other sources.

While the evaluation revealed a range of specific successes and insights for future *Play.sporta* iterations, the focus of this presentation will centre on what constrained and enabled the workforce as leaders of professional learning associated with PE and PL in primary school contexts. The pilot highlighted factors that gave the workforce the flexibility to interpret and therefore deliver professional learning in schools that was both contextually nuanced and reflective of their own personal strengths, whilst at the same time creating ambiguity and limiting the opportunity to create structural change in school practices.

In line with previous research, this evaluative research project highlights the need to consider the learning of the workforce as an essential aspect of any professional learning initiative. Simultaneously, the findings challenge our professional communities to consider the layers of complexity we create in asking practitioners to understand and enact numerous and varied philosophical mandates or agendas (PE, PA, PL) all at the same time.

# **Youth Development through Sport & PE**

## ORAL

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Saturday, 22nd June - 09:30: (Nexus 157) - Oral Paper

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*Dr. Yazid lawal Ibrahim (BAYERO UNIVERSITY, KANO)*

### COMMUNITY BASED SPORT APPROACH PROGRAM FOR YOUTH AND THE NITY DEVELOPMENT IN NIGERIA

### CHALLENGES OF COMMU-

**YAZID LAWAL IBRAHIM Ph.D**

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#### ABSTRACT

**BACKGROUND:** Modern sport and physical activity programs are clearly community driven as the reality the world over, but that stake holders are yet to come to terms and appreciate this fact. For any community to have hope for a brighter future, it must have a sound community based sport programs that is put in place. The United Nations declared 1985 as the international youth year and Nigeria observed every 27th day of May every year as the youth day, which was a pointer to the importance of this group and a testimony to the world wide concern over youths. There is therefore, an urgent need for a change of attitude, if these communities and youths are to provide the communities and humanity, as a whole with quality human resources. **PURPOSE:** Physical activities and Sport help them grow towards positive development, good relationships with others and get them involved in their communities. The purpose of this paper is to explore and ascertain the growing concerned of youth restiveness that bedeviled communities, much of this concerned where based on social vices and health related issues, such as increasing rate of delinquent, deviate behaviors rising crime rate, obesity and other cardio- vascular respiratory diseases and the known involvement of local communities in policy formulation and implementation of sport and physical that will help in stamping all deviant behaviors, crime and extremism.

**SUMMARY:** The main thrusts of this paper that are under consideration include: Introduction, The role of PA and sport in the development of youth; Inclusion of community based building approach; Character-building, delinquency and community safety; Opportunities in community sport programs, conclusion/recommendations and implications on policy and practice **WHAT THE PROPOSAL WILL ADDRESS:** The proposal will address the theme of the conference; that through active utilization of community based physical activity and sport programs as a medium for promoting a sense of patriotism and in enhancing the well-being of the youth and in addressing the underlying risk factors for crime involvement, And to utilize physical activity and sport as an economic tool in providing and improving the economic well-being of the youth boasting economy of the community and aim to act as either: Diversions for delinquent youth away from other delinquent youth; Rehabilitation activities for those previously involved in delinquent behavior; Gateways to engage the target group in sport in order to establish relationships with authority figures, social services, educational programs and marginalized groups

**CONCLUSION:** The concerned shown to youth internationally tend to suggest that they are the prime hope of tomorrow and the live-blood and power house of any community. Community based physical and sporting activities are considered as quite capable of bring positive change in polishing and moulding the youth behavior as such an enabling conditions have to be there because one cannot give what he does not have. To increase the success of community based sport and physical activity programs should be provided through supportive, 'bottom-up' approaches;

and the activity must be purposeful to the individual, tailored to their individual needs; and should de-emphasize regulations and winning.

**Implications on policy and practice**

Physical activity and sport are vital to the holistic development of youths and for them to be properly socialized and educated adequate tools and mechanism for sustained intervention strategies to guide their development. The implementation has fallen short of expectation due to inadequate planning, poor programming and the non involvement of community based approach. Professionals in the field should use sport in shaping programs and policies to both capitalize on the vast resources that youth present, as well as to clearly define an established role for youth in local development efforts and an insight to foster effective youth involvement in PA and sport for community advancement.

# Game-Centered Approach (TGfU) for Promoting Sports for Girls and Women in the Community

Saturday, 22nd June - 09:51: (Nexus 157) - Oral Paper

*Dr. Kanae Haneishi (Mount Holyoke College)*

The purpose of this presentation is to discuss how a game-centered approach such as Teaching Games for Understanding (TGfU) could promote sports for girls and women in the community. The game-centered approach was originally proposed to emphasize player's intrinsic motivation to PLAY games and to improve tactical awareness for the game (Bunker and Thorpe, 1982). Many sport teachers and coaches still believe that a player needs to master technical skills before they play games and dominate their practice sessions with isolated-repetitive drills. However, positive effects using the game-centered approach have previously reported on various aspects of playing games including increased player's motivation as well as improved game performance (Bunker & Thorpe, 1982; Oslin & Mitchell, 2006).

Psychological dimension is one of the critical aspects on girls' active participation in sport (Wiese-Bjornstal, 2007; LaVoi, et al., 2019). Girls have fun and are engaged while playing sports if they interact with their friends, experience physical activity, learn, and feel a safe space. During the game-centered approach, girls have the opportunity to communicate with each other and develop relationships with their peers. With the modified rules during the game-centered approach practices, girls are consistently challenged and experience a lot of physical activity. The approach also leads to cognitive learning by emphasizing tactical awareness. Additionally, the game-centered approach limits the singling out of a particular participant, promoting involvement over mastery. Mistakes that occur during the games are not clearly visible to their peers. Thus, the game-centered approach is one of the effective ways to create an environment with less fear of failure.

Moreover, girls are able to develop important life skills (i.e., teamwork, leadership, communication, respect for others, discipline and negotiation) during the games. These life skills help the girls and women in the community to establish their self-esteem and self-confidence (United Nations, 2007).

## REFERENCES:

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## Measuring developmental experiences of student-athletes participating in “Programme Sport-études”, an intensive training program offered in Québec, Canada.

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Saturday, 22nd June - 10:12: (Nexus 157) - Oral Paper

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*Dr. Marc-André Duchesneau (Université de Montréal), Dr. Cecilia Borges (Université de Montréal)*

In Québec, the *programme Sport-études* saw the light in the mid-80's with the sole purpose of addressing a fast growing need, that is: to help youth committed to excellence in sport pursue their goals without hindering their educational process. This program helps more than 5 000 student-athletes (age 12 to 17) to benefit from the special circumstances within which they can fully commit to a single sport. If that intensive training regimen is well integrated to the student-athlete's daily school schedule, we question the early specialisation and investment that seems to be encouraged by the program's own settings.

Considering these settings, we seek a better understanding on how it impacts student-athlete's development. Therefore, we passed an online questionnaire to 226 student-athletes including the Youth Experience Survey for Sport, which covers 5 dimension of youth development (Personal and social skills, Initiative, Goal setting, Cognitive skills, and negative experiences). A scale of 4 points was used. The developmental experiences we assessed were more positive then negative. The dimension of *Initiative* (M=3.5) and *Setting goals skills* (M=3.22) is where student-athlete score the most. One of our main findings was a significant differences athletes involved with individual sports and those who participate in a team sport. Generally speaking, the first had a much more positive perception than the latter, which is different then most study on similar subject.

# **Primary School Physical Education**

# Values-based education through physical education in primary school: Results of a study

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Saturday, 22nd June - 09:30: (Nexus 158) - Oral Paper

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*Prof. Attilio Carraro (University of Padua, Department of Biomedical Sciences), Dr. Erica Gobbi (University of Padua, Department of Biomedical Sciences)*

## Background and purpose

The assertion that PE can develop positive values is a long-held view. More recently, there has been a renewed attention on values-based education (VbE), mainly inspired by the peculiarities of contemporary society, which is marked by high complexity and uncertainty that expose youth to potential risks, in terms of their behaviours, health, and readiness to contribute to the future society (Carraro et al. 2017). The purpose of this study was to analyse the effects of a PE-based VbE programme aimed to promote equity in primary school.

## Methods

Four 5<sup>th</sup>-grade classrooms (78 pupils, 32 girls, mean age 10.4±0.4 years) were randomized into an intervention and a control group. The HIFDS (Feshbach et al., 1991), the SDQ (Goodman et al., 1998), the SCCP-II (Lickona & Davis, 2000) and open-ended specific questions were used respectively to measure affective and cognitive empathy, prosocial behaviour, perceived caring climate and the understanding of the equity value. Activities were led by two trained researchers in collaboration with classroom teachers for eight consecutive weeks. Assessments were conducted at t-0, t-end and after a 3-month follow-up.

## Results

ANCOVA (baseline as covariate) showed higher scores ( $p < .05$ ) in the HIFDS, SDQ and SCCP-II in the experimental than the control group at t-end and follow-up. Qualitative analyses of written answers revealed a more comprehensive understanding of the equity concept in the experimental group.

**Conclusions and implications** The assumption that a VbE programme through PE can provide primary school pupils with positive values seems to be sustained by the results of the present study. Schools are uniquely placed to teach the knowledge, skills and attitudes that underpin responsible citizenship. Indeed, the relationship between PE and the character, life skills and values orientation shaping of children has proved an enduring rationale for including such activities within the core curriculum of schools.

# Child Refugees in Physical Education – Challenges and Potentials from a Teachers Perspective

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Saturday, 22nd June - 09:51: (Nexus 158) - Oral Paper

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*Prof. Heike Tiemann (University of Leipzig)*

## **Background**

Since 2011 and due to immigration there has been a significant increase in the number of people with a migration background living in Germany. Because of this development schools are facing new challenges: „Migration-related heterogeneity in the form of linguistic, ethnic, cultural and religious diversity challenges both educational institutions and educators“. (Hauptvorstand GEW, 2015, S. 2). The study aims to identify the challenges but also the potentials which teachers perceive teaching physical education with child refugees.

## **Methods**

The qualitative study was carried out in Leipzig (Saxony). With the help of a document analysis, the structural specifications for the schooling of child refugees were first recorded. After establishing contact with all schools in which the pupils concerned are taught, problem-centred interviews were conducted with teachers (n=28). The interviews were evaluated according to the qualitative content analysis (Mayring, 2015).

## **Results**

The challenges and potentials identified by the teachers can be assigned to the categories of general conditions, gender, social behaviour, sports-specific requirements, language, motivation and emotions. A general view of teachers towards the group of child refugees in the class is often revealed: primary school teachers often express a rather individualised perspective, while secondary school teachers often show a more generalised approach. With regard to dealing with child refugees, teachers report changes in the content, forms of communication, methods and organisation of teaching.

## **Conclusions**

If child refugees take part in physical education classes, the perception of physical education of teachers changes. Child refugees are perceived as a “new” group of pupils with partly “new” needs. Some teachers are not prepared for these pupils and perceive them as a “new” challenge.

## **Literature**

Hauptvorstand GEW (2015). Einladung zur Fachtagung „Bildung in der Migrationsgesellschaft“.  
Mayring, P. (2015). *Qualitative Inhaltsanalyse*. Weinheim: Beltz.

**Considering PE: What,  
Why and By whom?**

# School saves lives: shaping physically educated citizens

Saturday, 22nd June - 09:30: (Nexus 241) - Oral Paper

*Dr. Alexandre Mouton (University of Liege), Mr. Adrien Closter (Université de Liège), Mr. Lucien Colard (Université de Liège), Ms. Manon Collin (Université de Liège), Mr. Simon Verdonck (Ligue Francophone Belge de Sauvetage), Mr. Denis Ulweling (Ligue Francophone Belge de Sauvetage), Prof. Marc Cloes (University of Liege)*

## **Background and purpose**

In Europe and the United States, more than 700,000 people die each year from cardiac arrest (Berdowski et al., 2010). If bystander cardiopulmonary resuscitation (CPR) could increase this survival rate by 2-3 times, less than 20% of the general population is able to perform it effectively (Plant & Taylor, 2013). School can play an active role in teaching basic life support (BLS) training programs that would have a significant impact on public health (Conolly et al., 2007). In a societal transfer perspective (Cloes, 2017), PE teachers are ideally placed to learn BLS to their students (Colquhoun, 2012).

## **Methods**

Twenty-one secondary school PE teachers were recruited and trained to one of the 3 evolutive BLS cycles adapted to the PE curriculum of each teaching level. Students learned the CPR+AED protocol during 6 sessions of PE with hands-on application on training manikins and AEDs. Students' knowledge of the BLS protocol was assessed by an open-ended questionnaire at baseline (T0), after the intervention (T1), and after a follow-up period of 3 months (T2). Practical application of the BLS protocol was assessed on a manikin measuring CPR performance at T1 and T2.

## **Results**

In each teaching level, students (1<sup>st</sup>: 10.7±0.8 years, n=186; 2<sup>nd</sup>: 14.5±0.9 years, n=112; 3<sup>rd</sup>: 17.1±0.8 years, n=307) demonstrated significant improvements of knowledge of the CPR+AED protocol at T1 (p<.000) that remained stable at T2. Second and third cycles students were able to perform chest compressions close to the international recommendations (ERC, 2015) at T1 and T2. More than 80% of the students felt able to help a victim of cardiac arrest at T1 and T2.

## **Conclusions**

The CPR+AED sequence led to encouraging improvements of knowledge, abilities, and confidence of the students. PE teachers felt valued and able to contribute autonomously to this major public health challenge.

## Exploring the Landscape of Physical Education External Provision in Primary Schools

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Saturday, 22nd June - 09:51: (Nexus 241) - Oral Paper

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*Ms. Jessica Mangione (University of Limerick), Dr. Melissa Parker (University of Limerick), Prof. Mary O' Sullivan (University of Limerick)*

**Introduction:** The use of non-school personnel as Physical Education (PE) providers for primary schools has become a worldwide trend. Petrie et al. (2014) argued that outsourcing and external provision has been normalised and accepted to such an extent that now it is fully integrated into the PE discourse. In the Irish context, Bowles and O'Sullivan (2012) found that 85% of primary schools used Gaelic Athletic Association coaches as external providers to cover aspects of the PE curriculum. It is clear that select external providers are playing a critical role in the delivery of the Irish PE curriculum. Despite this situation little is known regarding who these people are and how they engage with the PE landscape. The aim of this study was to understand who PE external providers are and how they engage with schools during the outsourcing process.

**Methods:** Seven PE external providers from five primary schools across Ireland were interviewed in face to face interviews and each was observed two or three times during their delivery of services to schools. Interviews were transcribed verbatim and data were inductively analysed.

**Results:** Data analysis is on-going. Initial findings highlight that despite the fact that each external provider has a unique perspective, the common denominator regarding their presence in schools is related to the promotion of their sport and sport association. Differences have been highlighted in relation to the involvement of National Governing Bodies of sport in the delivery of the provision of sporting services to schools.

**Conclusions:** We will share key aspects of the external providers' understandings regarding their engagement with schools, teachers, and students. Additionally insights into reasons why providers seek to engage with school settings and particular attention will be paid to the description of the provision as it relates to the PE curriculum.

# Physical Education as an Examinable Subject: the Mauritian Experience

Saturday, 22nd June - 10:12: (Nexus 241) - Oral Paper

*Dr. Sookhenlall Padaruth (Mauritius Institute of Education), Mr. Jaikishen Ramkurrun (Mauritius Institute of Education)*

Physical Education (PE) has been taught as a non-core and non-examinable subject in the primary and secondary schools in Mauritius for decades and is not considered an important area of study. However, since 2010 Physical Education has been offered as an optional subject for candidates at School Certificate (SC) or Higher School Certificate (HSC) level in the Cambridge International Examinations (CIE). While research worldwide has shown that marginalisation of PE as a subject affects the professional life of teachers as well as the learning experience and behaviour of students, it has also been argued that formalising assessment in physical education can lead to the valorisation of the subject.

This ongoing mixed method case study aims to investigate the experiences of PE teachers, administrators and the candidates opting for the subject at SC and HSC level, and the support system provided by schools for the teaching of PE. Data collection methods include document review followed by surveys and interviews administered to students, teachers and administrators.

Despite the lack of interest in regular non-examinable physical education classes, the subject has constantly grown in popularity among SC and HSC candidates, with more than 600 % increase . Analysis of document review shows a steady increase in the number of candidates opting for PE at SC and HSC levels, both among male and female candidates. The pass rate on the other hand has decreased over the years from 91.5 % in 2012 to 81.7 % in 2018. Even more alarming is the fact that the quality of results has also constantly regressed over the years; 45.5 % candidates securing a credit in 2012 compared to only 20.7 % in 2018. CIE reports have constantly highlighted the inability of Mauritian candidates to demonstrate the level of skill and knowledge required to secure high grades. Preliminary data from teacher interviews also indicate a lack of resources and facilities in schools for the teaching of PE.

Findings from the study will shed light on challenges faced by teachers and students as well as the support required and provided for appropriate teaching and learning of PE. Moreover, the study will add to existing literature concerning the relation between formal assessment in PE and the professional experience of teachers. It will also have implications for policy on teacher training and professional development needs of PE teachers.



# **Symposium 13**

## Right to be Active: Care Experienced Young People's Experiences of Sport and Physical Activity

Saturday, 22nd June - 11:00: (Nexus 239) - Symposium

Dr. Rachel Sandford (Loughborough University), Dr. Thomas Quarmby (Leeds Beckett University), Dr. Oliver Hooper (Loughborough University), Dr. Rebecca Duncombe (Loughborough University)

### Overview

This symposium provides an overview of the Right to be Active (R2BA) project - a methodologically innovative study of care experienced young people (CEYP) in England (those under the care of the local government) which explored their perspectives on/experiences of sport and physical activity (PA). It was conceived in response to research suggesting that, despite such activities being of potential benefit to CEYP, this vulnerable/marginalised group may not have access that is comparable to their non-CEYP peers (Quarmby et al., 2018). The project was undertaken over a period of 36 months and comprised four phases. During *phase one*, a review of relevant policy documents (i.e. those related to the health and education of CEYP) was undertaken to identify how access to sport/PA was situated within them. In *phase two*, national online surveys were distributed to both CEYP (n = 48) and adult stakeholders (n = 13) to provide contextual information about CEYP's perspectives on, experiences of and access to sport/PA. In *phase three*, semi-structured interviews were conducted with adult stakeholders (n = 4) and activity-based focus groups were conducted with CEYP (n = 63 in 6 different regional contexts) to further explore/elaborate on the survey data. In addition, narrative interviews were conducted with care leavers (n=4) to explore their reflective perspectives/experiences. Finally, in phase four, repeat focus groups were conducted with CEYP (n = 40 in 4 contexts) to refine the interpretations of the focus group/narrative data.

The symposium will comprise three related presentations on the R2BA project. These will: (i) share CEYP's perspectives on, experiences of and access to sport/PA; (ii) highlight how innovative participatory methods might be utilised in research *with* CEYP (and marginalised youth broadly); and (iii) examine how narratives constructed from young people's voices might be used to facilitate more inclusive practice within sport/PA contexts.

### **Presentation 1: Navigating complex social landscapes: Presenting an overview of findings from R2BA (Lead presenter: Dr. Rachel Sandford)**

This presentation provides a broad overview of the R2BA project and briefly outlines the research structure before discussing key empirical findings. It focuses primarily on data generated with/by CEYP, which indicate that the complex landscapes they navigate can be influential in shaping access to and experiences of sport/PA. The CEYP survey identified that while 83% of respondents considered sport/PA to be important, only 40% felt they had the same chances to participate as their non-CEYP peers. Moreover, whilst CEYP could recognise clear benefits from participating in sport/PA (e.g. positive health outcomes, skill development and fun/enjoyment) they also identified notable challenges (e.g. logistics, cost and low self-confidence). The data generated through the focus groups enabled further elaboration on these findings and highlighted three key factors that shape CEYP's participation in sport/PA: *people* (e.g. carers, social workers and teachers), *places* (e.g. homes, schools and leisure centres) and *activities* (structured/unstructured, recreational/competitive and traditional/alternative). These factors influence both the perceived benefits and challenges of CEYP's sport/PA experiences, all being mediated by the care contexts within which they reside. In concluding, we emphasise the value of focusing on CEYP's voices in order to better understand

the complex and highly individualised nature of their sport/PA experiences.

**Presentation 2: Putting them in the picture: Using concept cartoons in research with care experienced young people (Lead presenter: Dr. Oliver Hooper)**

The second presentation outlines the ways in which concept cartoons were utilised within the R2BA study, highlighting their relative benefits and limitations. Concept cartoons are an innovative participatory method, initially utilised by Hooper (2018) who adapted the idea from a pedagogical tool originally intended to support young people in learning about complex/abstract concepts. As part of the R2BA project, concept cartoons were developed based on the data generated with/by CEYP during the focus groups that took place in phase three. These sought to represent CEYP's varied perspectives on/experiences of sport/PA and were shared with participants as part of the phase four focus groups, in an attempt to ensure that CEYP felt that the cartoons accurately represented their views. Within the study, the use of concept cartoons was expanded beyond a data-generation tool, in that they were also used as a means of disseminating findings and representing/sharing the CEYP's perspectives on/experiences of sport/PA with other CEYP. Following completion of the project, concept cartoons have been used to disseminate the project findings to various adult stakeholders and have proved particularly effective in engaging both young people and adults alike, highlighting their potential for exemplifying the voices of marginalised young people in sport/PA.

**Presentation 3: Narratives and marginalised voices: Storying the sport/PA experiences of care experienced young people (Lead presenter: Dr. Thomas Quarmby)**

Existing research has failed to provide an opportunity for the *stories* of CEYP to be heard, especially with regard to their perspectives on sport/physical activity, and so our understanding of their experiences is limited (Quarmby et al., 2018). The final presentation therefore highlights the value of utilising narrative analysis and a storytelling approach to represent the voices of CEYP. The R2BA project drew broadly on a particular form of creative analytical practice (Richardson, 2000) known as *creative non-fiction*, whereby the stories generated were fictional in form but factual in content, grounded in real events and lived experiences. This presentation reflects briefly on the methodology underpinning the concept cartoons (outlined in presentation two), which represented composite creative non-fiction vignettes. It also presents the voices of four care-leavers (those aged over 18 years) in the form of creative non-fiction portraits. The stories that are presented highlight the successes and challenges these four care-leavers have encountered with regard sport/physical activity, the meaning it plays in their daily lives and, importantly, what lessons might be learnt from their stories. The presentation emphasises the value of adopting novel and creative approaches to data collection and representation with CEYP within the field of sport/physical activity.

**Discussant: Dr. Shirley Gray**

# **Young Scholar Award Oral Session**

## Health.edu – relationship between development of teachers' beliefs and students' competences concerning the topic health

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Friday, 21st June - 15:36: (Nexus 242) - Oral Paper

Saturday, 22nd June - 11:00: (Nexus 126) - Oral Paper

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*Mrs. Katharina Ptack (University of Bayreuth)*

### Background

Teachers' beliefs and didactical implementation are considered to be most important influencing factors on students' learning. In the field of education and health promotion it is well known that top-down-interventions often fail to implement innovations. Therefore, in the Health.edu-study a participatory approach with cooperative planning was chosen, in which various stakeholders (principals, PE-teachers, students, scientists) jointly developed and implemented methodological-didactical measures on health for PE classes. The aim was to change teachers' beliefs and didactical implementation in the sense of sport-pedagogical demands and thereby to improve students' competences concerning a self-reliant practicing of health-enhancing physical activity (sport-related health competence [SrHC]). The core of this paper is the evaluation of the relationship between the change in teachers' beliefs on the topic health and the change in SrHC of students through a one-year lasting intervention.

### Methods

Evaluation followed a mixed-methods design. PE teachers (n=8) were interviewed and video-observed before and after the intervention. The evaluation was based on qualitative content analysis. Students (n=233) were investigated in a pre-post-test design using a standardized paper-pencil-questionnaire designed to assess SrHC (Töpfer, 2017). T-tests and effect sizes (Cohen's d) were calculated for mean differences between SrHC pre and post.

### Results

As a result of cooperative planning, six teachers changed their beliefs and didactical implementation in the sense of sport pedagogical demands, accompanied with a significant improvement of SrHC of their students (d=1.0/1.3). Students' SrHC of the other two teachers did not improve significantly (d=0.2).

### Conclusion

Results confirm previous findings on the role of teacher beliefs for student learning and show that the chosen participatory approach was partly successful. Further analysis must deal with the question about sustainability of these effects and the role of successful cooperative planning.

### References

Töpfer, C. (2017). *Sport-related health competence: a competence model and test instrument for PE*. Available under urn:nbn:de:bvb:29-opus4-90521

## Is there a care ceiling in youth performance coaching?

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Saturday, 22nd June - 11:21: (Nexus 126) - Oral Paper

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*Dr. Colum Cronin (Liverpool John Moores University), Prof. Kathleen Armour (University of Birmingham)*

### Background

Care has been identified as a concept that is essential to sport coaching (Cronin and Armour, 2018; Grey-Thompson, 2017). Interestingly, in other domains, notably higher education, a care ceiling has been observed (Lynch, 2010). The care ceiling concept posits that while those in junior roles (e.g. personal tutors or support staff) may perform caring labour, this labour actually inhibits their capacity to progress to senior roles. Furthermore, caring labour is not seen as desirable for senior roles. Given the pedagogical roots of sport coaching, this study seeks to explore if a care ceiling, which has been observed in Higher Education, could similarly exist in elite sport contexts.

### Methods

In order to explore the care ceiling concept, this presentation utilises data from a larger project (Cronin and Armour 2018). It does so by considering the experiences of a case study coach, Jane. Phenomenological informed interviews (x 3) and data analysis was undertaken to collect and analyse Jane's experience of youth performance coaching. In addition, a content analysis of coaching job adverts in the UK was undertaken to examine where care is positioned within role specifications.

### Results

Findings reveal that a) Jane cares for athletes via a typical maternal approach; and b) Jane perceives that a wider discourse of hyper masculinity is dominant in elite adult sport. Furthermore, the content analysis supports Jane's assertions that care is at times absent or superficially recognised in coaching roles in the UK.

### Conclusion

Caring labour may be unrecognised in sport coaching roles in the UK. Given that care is a gendered phenomenon, future research should examine if the presence of a care ceiling may contribute to explaining the under representation of female coaches in sport.

### References

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## Managing the Critical Friendship: Using Self-Study in Doctoral Supervision

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Saturday, 22nd June - 11:42: (Nexus 126) - Oral Paper

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*Dr. K. Andrew R. Richards (The University of Illinois at Urbana-Champaign), Mrs. Victoria Ivy (University of West Georgia)*

**Background:** Self-study has the potential to help doctoral students critically reflect upon their process of becoming faculty members (Richards & Ressler, 2016). In some instances, faculty supervisors serve as critical friends for graduate students engaged in this work (Hu, van Veen, & Corda, 2016). These relationships, however, present challenges relative to power relations (Hemer, 2012) that need to be considered. We sought to understand the tensions and benefits of our engagement in a critical friendship between Karen and Tom, her doctoral supervisor.

**Method:** This self-study (LaBoskey, 2004) was initiated at the onset of Karen's doctoral program and continued through the completion of her PhD. During this time, Karen and Tom made regular entries in reflective journals and engaged in critical friend discussions. These data focused on the development of our mentoring relationship and how the relationship was framed by self-study. Data were analyzed using standard interpretive procedures that led to the development of themes (Strauss & Corbin, 2015).

**Results:** We both felt *initial apprehension* relative to opening up to one another at the beginning of the study. This apprehension was related to some *shared frustrations* with our relationship as we worked toward understanding one another's preferences for supervision. Over time, we *grew to trust one another* and became more comfortable openly discussing our feelings and insecurities. As this occurred, we noted ways in which self-study helped to facilitate our shared mission of developing a *more effective supervisory relationship*.

**Conclusion:** Developing a critical friendship between a doctoral student and supervisor presents some challenges stemming from power dynamics that we experienced (Hemer, 2012). Nevertheless, self-study helped us develop trust that both improved our relationship and provided a formal mechanism for us to reflect on our emerging practices as a doctoral student and doctoral supervisor (Richards & Fletcher, in press).

# **Symposium 15**



## Enhancing physical education teacher education (PETE) – Sports practice as a mediating entity for professional learning

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Saturday, 22nd June - 11:00: (Nexus 237) - Oral Paper

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*Prof. Verena Oesterhelt (University of Salzburg), Dr. Mareike Ahns (University of Salzburg), Mr. Maximilian Rief (University of Salzburg), Ms. Magdalena Richter (University of Salzburg), Prof. Günter Amesberger (University of Salzburg)*

Chair: Verena Oesterhelt (University of Salzburg)

Increasing efforts in the past decade to develop the quality of teacher education raise the question how further potentials within existing structures of study programs can be made accessible (O'Sullivan & Parker, 2018; BMBF, 2013). One focus lies on the interconnection between the different areas of teacher education (subject science, educational science, subject didactics, school-related practice). In this context, the symposium concentrates on university-based practical sports courses, as a fifth area and domain-specific element of PETE. To implement possible improvements in PETE didactics, it seems essential to first empirically investigate the potentials of the specific component. Against this background, the symposium discusses relevant issues along three papers:

First, a review study on empirical German publications on PETE (2010 to 2018) gives an insight in the spectrum of the current discourse with a special focus on studies that deal with movement learning aspects of PE students.

Second, due to an apparent lack of empirical as well as hermeneutic findings on the topic, central aspects of the significance of individual movement learning experiences within PETE are theoretically discussed. The focus lies on the crosslinking potential of individual movement learning experiences with scientific subject matters in order to foster an interlaced sport scientific thinking based on the idea of embodied learning (Stolz, 2015).

Third, a study is presented which aims at the phenomenological question which experiences and behavioral patterns become apparent in the reflections of PE-students in the context of a self-set movement learning task. The study intends to enlighten individual experiences as a resource for multidisciplinary thinking of PE-students and further development in university didactics.

On the basis of the above illustrated approaches, the symposium wants to offer a thematic frame for the discussion on subject related practical courses as a significant prerequisite for the professional development of future PE teachers.

BMBF (2013). Bund-Länder-Vereinbarung über ein gemeinsames Programm "Qualitätsoffensive Lehrerbildung". Retrieved from [www.gwk-bonn.de/fileadmin/Redaktion/Dokumente/Papers/Bund-Laender-Vereinbarung-Qualitaetsoffensive-Lehrerbildung.pdf](http://www.gwk-bonn.de/fileadmin/Redaktion/Dokumente/Papers/Bund-Laender-Vereinbarung-Qualitaetsoffensive-Lehrerbildung.pdf).

O'Sullivan, M. & Parker, M. (2018). Physical Education Teacher Education in a Global Policy Space. *Curriculum Studies in Health and Physical Education*, 9 (1), 2-6.

Stolz, S. A. (2015). Embodied Learning. *Educational Philosophy and Theory*, 47 (5), 474-487.

Paper 1:

### Review of empirical research on physical education teacher education (PETE) in German publications 2010-2018

Maximilian Rief, Verena Oesterhelt & Günter Amesberger (University of Salzburg)

This scoping review (Arksey & O'Malley, 2005) aims to unfold the empirical German-speaking scientific discourse on PETE-research. Present reviews lack a clear definition of PETE and transparent inclusion/exclusion criteria. Furthermore, they do not specify on empirical research and come short in investigating long-term developments as no recent review focuses on a longer period than two years. Considering these aspects in the methodical design,

the aim is to identify desiderata by thematic classification, followed by a thorough (systematic) analysis regarding university-based practical sports courses.

### **Method**

The conducted literature analysis includes publications of all major German journals on sports education as well as the pedagogical conference proceedings of the German society of sports science in an eight-year-period. All incorporated articles meet criteria of empirical research and fit a developed, broad definition of PETE, determining PE teacher professionalization from an occupational-biographical perspective. The articles are then inductively categorized into research fields, subsequently analyzing approaches and results in the selected area.

### **Results**

The results will give a detailed insight in the development of German empirical output on PETE concerning quantity and thematic emphasis. Regarding research on university-based practical sports courses a systematic analysis will offer information in-depth on the current state of research.

### **Literature**

Arksey, H. & O'Malley, L. (2005). Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), 19-32. doi:10.1080/1364557032000119616

Paper 2:

## **Movement learning processes in physical education teacher education (PETE) as crystallization point for professional learning — a theoretical approach**

Verena Oesterhelt (University of Salzburg)

For learning to teach beyond the mere instruction of sporting activities or delivery of information, the importance of the ability to integrate knowledge from the different elements of study programs is widely recognized (EC, 2013). The present approach focuses on practical sports courses in PETE and their assumed integrative potential as a basis for facilitating learning processes in PE. In the light of a little researched field, the aim is to theoretically evolve significant thoughts on subject-related practice.

The preoccupation with sport practice can be conceptualized as a self-educating process in dealing with the subject matter. The nature of the subject matter depends on normative interpretation (Scherer, 2008) and is to be discussed. In this approach, movement is understood from the perspective of action theory and the focus put on the individual and his/her experiences in solving movement-related challenges in the interaction between person and environment. The experiences refer to phenomenons of the psychomotor, cognitive, affective and social domain, possibly offering links for integrative sport-scientific reflections in immediate self-reference. The thoughts in this paper follow the assumption that processing these experiences accounts for an embodied learning (Stolz, 2015) and a deeper understanding of the subject-matter in PETE.

### **Literature**

European Commission (2013). *Supporting teacher competence development for better learning outcomes*. Retrieved from [http://ec.europa.eu/assets/eac/education/experts-groups/2011-2013/teacher/teachercomp\\_en.pdf](http://ec.europa.eu/assets/eac/education/experts-groups/2011-2013/teacher/teachercomp_en.pdf)

Scherer, H.-G. (2008). Zum Gegenstand von Sportunterricht: Bewegung, Spiel und Sport. In H. Lange & S. Sinning (Eds.), *Handbuch Sportdidaktik* (pp. 26-41). Balingen: Spitta.

Stolz, S. A. (2013). Phenomenology and Physical Education. *Educational Philosophy and Theory*, 45 (9), 949-962.

Paper 3:

## **Movement learning experiences in Physical Education Teacher Education (PETE) as a resource for an integrative thinking of PE-Students — an empirical insight**

Mareike Ahns, Magdalena Richter, Günter Amesberger & Verena Oesterhelt (University of Salzburg)

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Empirical investigations on the significance of movement learning experiences in PETE are currently rare (see paper 1). The project therefore aims at reconstructing learning experiences as a possible focal point for multidisciplinary thinking of prospective PE teachers (see paper 2). From a phenomenological point of view, the research question is: “Which experiences and behavioral patterns can be traced in the reflections of PE students on a movement learning process dealing with a specific learning task?”

### **Method**

The analyzed learning situation is a self-set learning task in gymnastics. Students chose three skills (floor/apparatus). Based on their initial competence level, they selected individual learning objectives, drew up their personal training plan and reflected the training process in learning dairies, which serve as the database (N=110 from six groups). The analysis was done using an inductive content analysis (Schreier, 2014).

### **Results**

The results give differentiated insight into students’ experiences showing rich points of reference concerning sport-scientific disciplines. Perceptions of the body, functional aspects of movement, with reference to individual dispositions, and motivational, emotional and social aspects become apparent. Clear indications are given for a possible support of integrative thinking and understanding the embeddedness of movement in the dynamics of individual experiences (Bietz, 2010).

### **Literature**

Bietz, J. (2010). Sportliches Bewegen und Erfahrung im Bildungsprozess. In R. Laging (Hrsg.), *Bewegung vermitteln, erfahren und lernen*. Baltmannsweiler: Schneider Verlag Hohengehren.

Schreier, M. (2014). *Varianten qualitativer Inhaltsanalyse: Ein Wegweiser im Dickicht der Begrifflichkeiten*. Forum Qualitative Sozialforschung, 15 (1), Art. 18.

# **New Approaches for Quality PETE**

## Coaching the Coaches in Pedagogical Quality Based on Systematic Observation and Video Feedback: Mixed Methods Evaluation of a Six-Month-Intervention

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Saturday, 22nd June - 11:00: (Nexus 275) - Oral Paper

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Prof. Alfred Richartz (Universität Hamburg), Ms. Kathrin Kohake (Universität Hamburg), Ms. Jessica Maier (Universität Hamburg)

Pedagogical quality in sports training is supposed to facilitate learning and performance as well as psycho-social development and motivational orientation. Regarding process-quality research tends to distinguish three overarching domains: quality of educational relationships (i.e. caring), classroom management, and engaging, demanding instruction (Kunter et al., 2013). The Classroom Assessment Scoring System (CLASS; Pianta, LaParo & Hamre, 2008), a validated observation instrument measuring pedagogical quality in classrooms, covers these three domains. Most indicators of effective teaching also apply to sports training: positive climate, sensitivity for participants' needs, managing behaviour, providing effective feedback etc. 15 Coaches (levels: novice to experts) in gymnastics, handball, and judo were introduced to the CLASS and participated in a six-month video-based online-coaching. Research suggests multiple process variables to be crucial for coaching effectiveness: relationship quality, affect-calibration, solution-focused reflection, implementation support, activation of resources, and self-determination (Behrendt & Greif, 2018). Process-quality was measured in a mixed methods design using questionnaires and qualitative interviews (Mertens, 2018). Questionnaires show high scores in all process variables and learning outcomes for expert-coaches as well as for novices. Interviews reveal underlying processes: relationship building, respect, clear goals and structure through CLASS-reference, video-based guiding of attention, activating reflection, solution-focused interaction, coachees' perception of coaches' pedagogical competence (regardless of competence in specific sport domains), and calibration of negative affect.

Behrendt, P., & Greif, S. (2018). Erfolgsfaktoren im Coachingprozess. In S. Greif, H. Möller & W. Scholl (Eds.), *Handbuch Schlüsselkonzepte im Coaching* (pp. 164-172). Berlin: Springer.

Kunter, M., Klusmann, U., Baumer, J., Richter, D., Voss, T., & Hachfeld, A. (2013). Professional Competence of Teachers: Effects on Instructional Quality and Student Development. *Journal of Educational Psychology*, 3,805-820.

Pianta, R.C., LaParo, K., & Hamre, B.K. (2008). *Classroom Assessment Scoring System*. Manual K-3. Baltimore: Paul H. Brookes.

Mertens, D.M. (2018). *Mixed Methods Design in Evaluation*. Los Angeles: Sage.

## 21st Century HPETE Curriculum Considerations

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Saturday, 22nd June - 11:21: (Nexus 275) - Oral Paper

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*Dr. Staci Drewson (Monmouth University), Dr. Michael Hodges (William Paterson University)*

Best practices in health and physical education teacher education (HPETE) change to align with revised standards, recent research findings, and present-day social trends. Hence, quality HPETE programs must adapt to train future health and physical educators in accordance with evolving best practices. The purpose of this presentation is to identify important considerations in a 21st century HPETE curriculum including physical activity trends in society, current PreK-12 health and physical education landscapes, balance between content knowledge and pedagogical knowledge, applied and innovative training experiences, and state licensure requirements. Presenters and attendees will discuss strategies to integrate these considerations into established HPETE curricula.

This presentation addresses the sub theme of Professional Preparation for Health and Physical Education, Sport, and Physical Activity by highlighting 21st century HPETE curricula considerations in a space that welcomes a collaborative, solution-oriented exchange of ideas. The presentation concludes with three practical implications for HPETE programs.

# **Learning Communities in PE**

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## Designing a need-based learning management system for supporting teacher learning communities

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Saturday, 22nd June - 11:00: (Nexus 154) - Oral Paper

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*Dr. Mustafa Levent Ince (Middle East Technical University), Dr. Deniz Hunuk (Pamukkale University), Dr. Deborah Tannehill (University of Limerick), Dr. Mehmet Ata Ozturk (Middle East Technical University), Dr. Mehmet Yanık (Balıkesir University), Dr. Yüksel Savucu (Firat University)*

Learning communities (LC), depending on the social nature of human learning, are useful tools for supporting teachers' professional development. During participation in an LC teachers' share their knowledge and experiences on teaching and learning in an attempt to improve their practices by on-going interaction and sharing. Often, this discourse is enhanced through an examination of additional reliable knowledge resources including experts, books, journals, and audiovisual materials. Internet-based learning management systems (LMS) are viable means to bring information resources for the use of teachers in LCs. This study aims to present the design of an LMS using the asynchronous and synchronous technologies to support the teachers' LCs in Turkey. In the design of LMS, first, a comprehensive needs assessment study by survey method was completed. Participants of the survey study were 390 physical education teachers working in eastern, central, and western cities of the country. The survey study included validated questionnaires in general and physical education specific teaching competencies. Then, three focus group interviews, representing teachers from the three locales across the country and including six to eight teachers in each were conducted. Analysis of survey and focus group interview data indicated that teachers' possible information needs were on 1) knowledge of current physical education curricula, 2) course/instructional design, 3) instructional strategies and methods, 4) measurement and evaluation, 5) inclusive/adapted physical education, and 6) professional development opportunities. A module for each topic, totally six modules, was created to present in the LMS. Each module included a) powerpoint presentations, b) written materials including relevant books, research papers, reports, c) audiovisual resources, and d) quizzes and inquiry questions for self-evaluation. Each module also included a real-time communication opportunity with the subject experts on a given date, time, and the topic. In conclusion, conducting a comprehensive needs assessment study to examine the possible information needs of teachers might be useful in designing asynchronous and synchronous LMS opportunities to support LC participants.

This study is supported by The Scientific and Technological Research Council of Turkey (Tübitak, Sobag Project No: 215K460)



## **A Community of Practice supports a veteran teacher's research on her practice.**

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Saturday, 22nd June - 11:21: (Nexus 154) - Oral Paper

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*Dr. Marie Clonan (City of Dublin Education and Training Board)*

The teaching council in Ireland (2016) envisages teachers as reflective practitioners and sees teachers as members of professional learning communities. Membership of a Community of Practice can support reflections on practice (Lave and Wenger 1991 and Wenger 1998). There is limited research on how communities of practice can support critically reflective teachers (Brookfield 1995) where practice is to be seen from the perspectives of the teacher, her peers, the students and research.

The research design was a case study. It examined a series of action research cycles of a veteran teacher in her efforts to improve her teaching practices. Data sources included documentation (including pupil reflections, teacher vignettes and her reflection journals) and interviews with school colleagues. Data were analysed using a constant comparative approach using seven phases (Maykut and Morehouse 1994) Results showed that through her interactions with the Community of Practice, a veteran PE teacher was supported in reflecting on her practice through her practitioner research cycles. It resulted in changing her practices, understandings and beliefs of her role as a teacher and member of the PE professional community. This study should interest those involved in the landscape of PE practices who wish to support practitioners to reflect on their practice and engage in research on practice.

## **The Reunion Island Moring, a patrimonial inheritance issued from slavery: How to build up an elementary school community of practice based education for otherness**

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Saturday, 22nd June - 11:42: (Nexus 154) - Oral Paper

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*Mrs. Delphine BODY (Reunion Island University (FR), ICARE Laboratory (EA 7389)), Prof. Nathalie Wallian (Reunion Island University (FR), ICARE Laboratory (EA 7389)), Dr. Jérémie Bride (Tsukuba University (JP), ICARE Laboratory (Reunion Island University, FR))*

At Reunion Island, the Moring traditional physical practice is crossing martial arts, fighting dance performance and sport competition. Issued from the slavery ancestral heritage (19th Century) in south Indian Ocean, this cultural practice crosses high level body techniques, spiritual values shared among communities and ritual customs transmitted through generations. Meanwhile, it remains quite transparent in the society, excepted during the memorial Day of Abolition; its presence at school PE is rare because of representational obstacles carried by teacher students and sometimes parents and estate inspectors from National Education.

This research aim lays on the knowledge effectively taught/learned at the elementary school during a complete PE learning cycle (T = 18 50' effective practice; N = 25 students aged 10-12 years). The Moring didactic treatment was operated by a Master, completed by a pluridisciplinary crossing made by teacher (i.e. history, drum musics, visual arts). A whole school was involved for the street performance in island maintown in prevision of December, 20th, the 170th commemoration day of slavery abolition.

The data collected consisted of 1) the video-record of Moring lessons (N = 18hours effective practice time) so as to analyze the effective taught content knowledge, 2) Student designs and exchanges that expressed their own representations and 3) the registration of the December 20th final Performance. Results showed that the cultural mediation process was based on strong community values expanded to the families and the district that allowed the sharing of knowledge. Based on inclusion and fighting dance conceived as a dialogue, the didactic approach presented very strong issues in terms of mutual respect, tolerance for otherness and respect of ancestral traditions and of rituals. This didactic approach opens perspectives for contextualizing the PE when considering the cultural local heritage facing young students from Reunion Island with different identities.

# **Theater, Dance and Social Integration in PE**

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## Promoting integration through physical education

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Saturday, 22nd June - 11:00: (Nexus 155) - Oral Paper

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*Dr. Björn Tolgfors (University of Örebro, School of Health Sciences)*

### Background and purpose

Due to migratory movements, many advanced liberal democracies of today are characterised by cultural heterogeneity. A common problem in these societies is segregation, which is also reflected in schools. In Sweden, this challenge is currently tackled through ‘bussing projects’ in order to promote integration and improve study results. The research interest is directed at one of the schools where ‘the bus for inclusion’ stops every morning. According to Bunar (2015), physical education (PE) is regarded as a school subject of particular importance for integration. However, Barker and Lundvall (2016) note that PE is ‘unprepared for changing societies’. Based on the (high or low) expectations of PE as an integration subject, the study focuses on the promotion of integration through PE.

*The purpose* of the study is to explore how the promotion of integration is carried out through the PE teacher’s pedagogical actions and the pupils’ ways of acting on them and also what the consequences of this ‘action upon action’ (Foucault, 1982/1994, p. 340) in the PE practice are likely to be.

### Methods

The study focused on a PE teacher (a forty-year-old white male) and a heterogeneous class of pupils. The purposive sampling strategy was to ask the PE teacher which of his classes he would recommend for the study, based on a broad spectrum of cultural identities. The teacher recommended a class in school year seven, with pupils aged 13. The field work involved observing a total of eighteen lessons throughout the autumn term in 2018. The observations were complemented by two semi-structured interviews with the PE teacher, at the beginning and at the end of the research project. The field notes and transcriptions were analysed from a governmentality perspective (Foucault, 1978/1994).

### Results

The PE teacher’s pedagogical actions are *promoting intercultural encounters, equalising opportunities for participation and supporting self-regulation*. Depending on the pupils’ compliance or resistance to the teacher’s guidance, the consequences are likely to differ. In the case of compliance, autonomous subjects with interpersonal and collaborative skills are constituted. Potentially, this subjectification process benefits their integration in a neoliberal society like Sweden. In the case of resistance, a certain degree of segregation will remain as long as the pupils continue to solely identify themselves with those from similar cultural backgrounds and exclude others.

### Conclusion

The study connects the municipality’s ‘government at a distance’ with ‘the microphysics of power’ in the PE practice. As suggested by Walters (2012), the analysis then builds outwards again, which makes it possible to speculate on consequences at the macro level. Thus, this article shows how a PE teacher’s guidance can make a difference, not only in the gym, but in society as a whole.

## Enhancing assertiveness through traditional Turkish folk dance

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Saturday, 22nd June - 11:21: (Nexus 155) - Oral Paper

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*Dr. ZULEYHA AVSAR (Uludag University)*

### ***Background and purpose:***

Assertiveness is a basic congruity item developing quality and quantity of communication between people. Many researches support assertiveness can be learned later and assertiveness training can be conducted by some techniques such as learning from the model, rehearsing or repeating the behavior. Rehearsing or repeating the behavior technique can be done by the participants through some activities such as drama, sport and dance since these activities are natural enhancers of assertiveness. Turkish folk dance (Zeybek) was accepted as the way of enhancing assertiveness in this study. Zeybek symbolizes bravery and self-confidence. The purpose of the study is to investigate the effects of assertiveness training through Zeybek dances on high school students' assertiveness level.

### ***Methods:***

All participants were administered the Rathus Assertiveness Inventory and experiment group participants received a two-hour assertiveness training through folk dances per week over a period of 8 weeks. The study sample included 203 ( $X_{age}=15$ ) ( $X_{male}=68$ ,  $X_{female}=135$ ) students who were first grade in the same school. All 1st grade high school students ( $N=203$ ) joined the pre-test. Then 47 ( $X_{male}=20$ ,  $X_{female}=27$ ) introvert students and their families were informed about the study and asked if they were volunteers to participate in this study. Only 6 ( $X_{male}=2$ ,  $X_{female}=4$ ) students were willing to participate in the study.

### ***Results:***

Results revealed that students in the experiment group had significantly higher assertiveness levels compared to the assertiveness levels of students in the control group ( $P<0.05$ ) and experiment group students defined that this assertiveness training programme affected them in positive ways and it increased their awareness about themselves.

### ***Conclusions and Implications:***

School counselors should carry out assertiveness training curricula for the students who have low assertiveness level. In these curricula, counselors can cooperate with the physical education teachers for dance training.

# Physical activity, emotional intelligence and food habits of Belgian pupils: effects of the Oblomov methodology

Saturday, 22nd June - 11:42: (Nexus 155) - Oral Paper

*Mr. Nicolas Franck (University of Liege), Dr. Alexandre Mouton (University of Liege), Ms. Maurine Remacle (University of Liege), Prof. Marc Cloes (University of Liege)*

## Introduction

In Belgium, only 2% of children 6 to 9 year-old reach the international physical activity (PA) recommendations (Wijtzes et al., 2016). Such finding underlines the need of concrete actions aiming to tackle inactivity in preteens, particularly during physical education (PE) lessons. Several approaches are experimented worldwide. One of them proposes an original combinaison of physical activity and theatre: the ObLoMoV (Obesity and Low Motility Victims) project. It is developed within the scope of the Erasmus+ program (see <https://www.oblomovproject.eu/>). The aim of this paper was to examine the influence of that innovative pedagogical approach on self-reported PA, emotional intelligence, and food habits of elementary school children.

## Methods

Five PE teachers from the area of Liege (Belgium) proposed a 10 lessons unit to 176 pupils of 5<sup>th</sup> and 6<sup>th</sup> grades (95 boys). Each lesson combined High Intensity Interval Training (HIIT), dramatization and health education (Remacle et al., 2018). Pupils fulfilled questionnaires before (T0) and after the intervention (T1), and after a six months follow-up period (T2) in order to collect data about their levels of PA (PAQ-C), emotional intelligence (TEIQue-ASF), and food habits (Adolescent food habits Checklist). An analysis of the teaching process was conducted during the unit (pupils' lessons perceptions and punctual informal observation).

## Results and conclusions

Preliminary results exposed children's positive reaction during the lessons both from pleasure and perceived energy expenditure perspectives. Comparisons T0-T1 revealed very few (non-significant) differences of the average scores for PA (3.075 Vs 3.25), emotional intelligence (144.15 Vs 143.7), and food habits (13.74 Vs 13.42). Differences at T2 are still under analysis but preliminary investigations on the questionnaires allows us to consider that the real impact of the unit on the pupils' lifestyle is limited, underlining the need for multisectorial approaches for lifestyle modification.

Word count: 291

## Reference

Wijtzes, A.I., Verloigne, M., Mouton, A., Cloes, M., De Ridder, K.A.A., Cardon, G., & Seghers, J. (2016). Results from the 2016 Active Healthy Kids Belgium Report Card on Physical Activity for Children and Youth. *Journal of Physical Activity and Health*, 13 (Suppl 2), S95 -S103. doi: 10.1123/jpah.2016-0306.

# **Physical Activity Interventions**

# The Impact of Different Game Types and Sports on College Students' Physical Activity and Motivation in Basic Instruction Program Settings

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Saturday, 22nd June - 11:00: (Nexus 156) - Oral Paper

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*Dr. Yang Song (Lane College), Dr. Stephen Harvey (Ohio University), Prof. James Hannon (Kent State University), Dr. Karen Rambo-Hernandez (West Virginia University), Dr. Emily Jones (Illinois State University), Prof. Sean Bulger (West Virginia University)*

**Background:** Although university Basic Instruction Program (BIP) classes are founded on the rationale of providing physical activity (PA) opportunities for students, little is known about student PA and/or motivation levels. The present study investigated students' PA and motivation levels while playing different games types (modified games/MGs, small-sided games/SSGs, and full-sided games/FSGs) in badminton and soccer. **Method:** Participants were seventy-one students (14 females) from a rural Mid-Atlantic university. Triaxial accelerometers were used to collect Moderate to Vigorous PA (MVPA) data and the Intrinsic Motivation Inventory (IMI) to measure motivation. **Results:** Students in soccer classes had statistically significantly more MVPA than badminton. Students in soccer and badminton classes had most MVPA in FSGs and SSGs, respectively. Although students reported similar scores in the three IMI subscales when data were aggregated, soccer students reported higher levels of competence and effort in MGs, whereas badminton students reported higher levels of competence and effort in SSGs. Interest was the only statistically significant predictor of MVPA in MGs whereas perceived competence statistically significantly predicted MVPA in both SSGs and FSGs. **Conclusions and Implications:** PE and sport practitioners can utilize different game types to find the optimal balance between MVPA and student motivation and realize lesson objectives.



## Motivation to be Physically Active in College Students: Does Previous Athletic Participation Make a Difference?

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Saturday, 22nd June - 11:21: (Nexus 156) - Oral Paper

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*Dr. Shari Jurgens (Trinity Christian College)*

### **Background and purpose:**

- College students are more obese and less active than high school students (Egli, Bland, Melton & Czech, 2011; Kilpatrick, Hebert & Bartholomew, 2005; Pauline, 2013).

-About 35% to 42% of all college students do not meet the recommendation of physical activity (Pauline, 2013)

-Physical activity habits are set early in life, even as early as adolescence, and they may continue into early adulthood and become especially marked in the transition from high school to college (Madonia, Cox, & Zahl, 2014).

-Students are either reducing or abandoning physical activity at some point before or during their college years (Kilpatrick et al., 2005; Pauline, 2013).

Gap - Previous research has indicated that motivation to exercise in the college population needs to be further studied so that college fitness center programmers can understand and address rising obesity and decreasing physical activity (Egli et al., 2011; Kilpatrick et al., 2005; Pauline, 2013).

### **Methods:**

This quantitative, causal-comparative study explored if differences exist in college-aged students' current physical activity, intrinsic motivational factors to exercise, and extrinsic motivational factors to exercise between previous high school athletes and previous high school non-athletes. The Exercise Motivation Inventory (EMI-2) and Godin Leisure-Time Exercise Questionnaire (GLTEQ) were used to collect data from 317 students. These students were either full/part-time, 18-24 and attending a small, private, liberal arts college in the southwest suburbs of Chicago. This study was based on self-determination theory.

### **Data Analysis:**

Data analysis included a MANOVA on the intrinsic and extrinsic variable groups and independent t-tests on each individual variable.

### **Results:**

The results showed that there was a statistically significant difference between the groups, with previous high school athletes scoring higher than non-athletes in the areas of physical activity and intrinsic motivation, including challenge, affiliation, revitalization and enjoyment. Significant differences were also found in extrinsic motivation, with previous high school athletes scoring higher in the areas of competition, social recognition and strength and endurance. Future research should be completed with a larger sample size and should include students from a larger variety of colleges.

### **Conclusions and implications:**

1 – It is hoped that these results are used by fitness center managers at colleges and universities as guidance for future decisions regarding physical activity offerings at their facility.

2 - Knowing that previous high school athletes are already more physically active means that fitness center managers may need to focus more on attracting the previous high school non-athletes into the fitness center.

(further qualitative follow-up research is being done SPR 19 to expand on these conclusions and will be included in the presentation of the above research, including suggestions for fitness center programming to address these

results)

# The Made2Move Club: A Physical Activity Intervention Programme for University Students

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Saturday, 22nd June - 11:42: (Nexus 156) - Oral Paper

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*Dr. Fiona Chambers (University College Cork), Ms. Gillian O'Sullivan (University College Cork), Prof. Deirdre Brennan (Ulster University), Dr. Manolis Adamakis (University College Cork), Dr. Wesley O'Brien (University College Cork)*

## Background and purpose

Regular physical activity i.e. 150 minutes of moderate physical activity per-week, or 75 minutes of vigorous physical activity per-week (WHO, 2010) is beneficial for health and well-being (Biddle, Mutrie, & Gorely, 2015). This threshold is not being reached by 25% of university students (de Almedia et al., 2007). Moreover, many university students drop-out from organised sports and physical activities, and are unlikely to undertake new active pursuits later in life (Telema et al., 2008). The purpose of this study was to determine whether an evidenced-based physical activity programme based on self determination theory (Ryan & Deci, 2000) might increase physical activity levels among university students in one university in Ireland.

## Methodology

The campus-wide Made2Move Club (first of its kind) was iterated using design thinking (Goligorsky, 2012) in a three-phase data informed design sprint over an 18-month period, led by a Made2Move Coordinator. Volunteer MoveMentors (n=129) recruited their own MoveMentees (n=183) on campus and were trained in Planning for Physical Activity, Motivation Theory and Mentorship. Made2Move Club events included Made2Move Talks, Made2Move 'Food for Thought' programme and a *Couch to 5k* charity event. Data collection tools included: Open Profile Questionnaires and Think and Do Tanks (MoveMentor) and Par-Q and daily step count (MoveMentee). Data analysis comprised both descriptive statistics and grounded theory (Charmaz, 2006).

## Results

The success of the programme rested on whether MoveMentees reached >10,000 steps per day (Tudor-Locke & Bassett, 2004). All MoveMentees reached the daily step goal with 65% exceeding this threshold. Findings showed that MoveMentors *perceived* efficacy was linked to disposition, MoveMentor training (Author, 2015). Finally, in the interests of holistic health, the *Made2Move Club Events* helped to provide members with guidance on sleep, mental health, nutrition and water intake.

## Conclusions and Implications

The *Made2Move Club* empowered trained MoveMentors to support MoveMentees to increase their physical activity levels.

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# **Sport Practice**

## Influence of the sport practice on motor development

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Saturday, 22nd June - 11:00: (Nexus 157) - Oral Paper

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*Prof. Boris Jidovtseff (University of Liege), Mrs. Noémie Piret (University of Liege)*

**Background and purpose:** The researches on children motor development are meeting an increasing interest. Surprisingly only few studies have investigated the influence of both actual and history of sport practice during childhood on motor development. The aim of the present study was to investigate if a regular sport specific and/or multisport practice may have an impact on the motor development.

**Methods:** Fifty-three prepubescent girls (10±0.5yo) were allocated into five groups according to their main sport practice: dancers, tennis players, basketball players, judokas and control group. All girls achieved a testing battery including eleven items : balance, spatial orientation, rhythm, body image, shoulder flexibility, posterior chain flexibility, rolling, bouncing, and racket handling. Additionally, parents were asked to complete a survey on their children sport practice history and on their own practice.

**Results:** The results confirm the hypothesis that children motor development is related to their main sport. Sports such as dance and judo promote the development of body control while sports such as basketball and tennis promote the development of objects control. The results of the control group are below the results of the four other groups in most of the tests. The analysis of the survey data revealed that motor development seems to be influence by volume of practice, but not by screen time nor parents history of sports practice. Girls with a multisport experience have shown superior motor development

**Conclusions:** The results of this study are suggesting that actual sport practice and history of sport is related to children motor development. A multisport practice stimulating both body control and object control competences is recommended for a complete motor development of the child.

## Practicing – a turn towards the body in physical literacy

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Saturday, 22nd June - 11:21: (Nexus 157) - Oral Paper

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*Mr. Michael Blume (VIA University College and Norwegian School of Sports Science)*

Do we need to change focus from ‘motor’ development to ‘body’ development and start this change already in early childhood education? Then physical games and exercises will not only be for fun and pleasure, but also hard work, ‘bodywork’. The physical work with the body seems to be close related to repetition and practicing.

This study investigates the concept of ‘practicing’ in the framework of physical literacy. It is a theoretical study examining historical and philosophical ideas. The following questions was guiding the research. What are the arguments for the practice of practicing and is it possible to find some common principles for the process of practicing?

The results will be presented as a ‘bricolage’ (Johnson, 2012), i.e. a patchwork of historical and theoretical perspectives. They are pieced together to elaborate on the concept of practicing. Central positions in the bricolage is Sloterdijk’s account of ‘the power of repetition’, ‘the ascetic ideals of practicing’ (Sloterdijk, 2013), and Foucault’s idea of ‘care of the self’ (Foucault, 1988). In addition, historical writers provide us with forgotten reasons for bodily exercises and present concrete methods on how to practice, when the focus is on ‘the literacy of the body’ (Groll, 1959).

These insights can contribute to a bodily turn in physical literacy. Through practicing, through the power of repetition, the body may become a powerful resource for learning and wellbeing.

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## Long Term Athlete Development as a Participation Pathway toward a Physically Literate Culture

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Saturday, 22nd June - 11:42: (Nexus 157) - Oral Paper

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Prof. Tony Moreno (Eastern Michigan University)

Abundant evidence supports the positive association between moderate to vigorous physical activity and enhanced levels of physical fitness, performance, health and well-being. However, within the United States (US) there exist trends toward decreased physical activity, less opportunity for quality physical education, higher incidence of metabolic syndrome, overweight, and obesity, and increased health and medical care costs. Although there is consensus among sport governing bodies, educational organizations, and health agencies that *physical literacy* is of importance and should be embraced, cohesive and collaborative efforts to initiate implementation action plans at present are sparse or loosely structured. As a potential solution, *long term athlete development* (LTAD) is an evidence-based framework that identifies opportunities to systematically promote participation in sport and physical activity throughout the lifespan.

Within the school setting, LTAD is often misunderstood as an exclusive form of programming for an elite class of students with the sole aim of high-level physical capability and a competitive sport performance environment. Conversely, LTAD provides a simple yet flexible approach toward improving bio-motor abilities, and the self-confidence of every youth participant. Further, it is a process that considers the biological and behavioral variability that exists among all students whether they elect to follow a path of sport-participation, recreational physical activity, dance, or other physical pursuits. To address barriers regarding *physical illiteracy* and inactivity within the US, it is the focus of this session to address two critical aspects to help physical educators understand and embrace LTAD as a pedagogical framework. These are; 1) share and discuss evidence-based principles and definitions of LTAD, and 2) share and discuss LTAD implementation practices within the K-12 school setting. Conversation and understanding of LTAD offers the opportunity to examine future best practice and those advocacy strategies that can position physical education as the key discipline to ignite a participation pathway toward a physically literate culture.



# **Physical Activity Participation and Physical Literacy**

## Logics of practice in movement culture: a fifty-year follow-up study

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Saturday, 22nd June - 11:00: (Nexus 158) - Oral Paper

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*Prof. Hakan Larsson (The Swedish School of Sport and Health Sciences, GIH), Dr. Bengt Larsson (The Swedish School of Sport and Health Sciences, GIH)*

Previous research show that participation in movement culture is socially stratified, a situation that leads to unequal health conditions. There is extensive knowledge about social stratification of movement cultures, but the knowledge is limited about what are the driving forces behind the pattern. The purpose of the study is to deepen the understanding of how social position relates to participation in movement cultures. The theoretical framework is based on Bourdieu's conceptual tool kit, particularly the concept logic of practice. The study draws on quantitative data from a longitudinal study where a cohort of 2000 Swedes' exercise and lifestyle habits has been followed regularly since 1968. In the latest data collection (2016), 1000 individuals participated in the study. The results indicate a match between certain kinds of movement activity and social position. For instance, people with high cultural capital have more often acquired a taste for activities that include training the body, playing and experiencing nature. Further, people with high economic capital have acquired a taste for activities that include training and practising the body. These are very popular activities. Activities that are challenging but lack competition, or activities that are about expression and moving to music are not characterised in the same way by social stratification. However, such activities are not that popular. In sum, the field of movement activities seems, at least in Sweden among people who were born in the 1950s, to be characterised by a match between the taste preferences that privileged groups in society develop. One might say that groups with strong cultural or economic capital create affinity - and identity - through the taste for certain kinds of activity: 'I train my body, play sports and experience nature!' Individuals with a lower social position consequently become less inclined to participate in these activities.

# Assessments of Physical Literacy in Children aged 3-7 years: A Series of Systematic Reviews

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Saturday, 22nd June - 11:21: (Nexus 158) - Oral Paper

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*Ms. Hannah Goss (Liverpool John Moores University), Ms. Cara Shearer (Liverpool John Moores University), Mrs. Elizabeth Durden-myers (University of Gloucestershire), Prof. Zoe Knowles (Liverpool John Moores University), Dr. Lynne Boddy (Liverpool John Moores University), Dr. Lawrence Fowweather (Liverpool John Moores University)*

**Purpose:** Physical literacy is the motivation, confidence, physical competence, knowledge and understanding to value and participate in physical activity for life. UNESCO (2015) highlighted the importance of developing physical literacy from childhood. Yet evidencing physical literacy is a contentious issue. The aim of this study was to systematically review existing assessments relating to physical literacy, suitable for use with 3-7 year old children.

**Methods:** Preferred Reporting Items for Systematic reviews and Meta-Analyses-Protocols (PRISMA-P) guidelines were followed. MEDLINE (via PubMed), ScienceDirect, SPORTDiscus, Scopus, PsycINFO, and Education Research Complete, were searched (between 12 May 2017- 4 November 2017) using a predefined search strategy. Two independent researchers screened studies for inclusion and completed data extraction. The CONsensus-based Standards for the selection of health Measurement INstruments (COSMIN) checklist was used to appraise methodological quality. A novel checklist was developed to evidence authenticity to the concept of physical literacy. The utility of each assessment was also evidenced.

**Results:** From the 7548 search results, 130 studies met the inclusion criteria (cognitive n=6, affective n=62, physical n=70). 16 assessments were used with children aged between 3 and 7 (cognitive n=4, affective n=6, physical n=6). It was found that reporting of psychometric properties of assessments was poor and many assessments did not provide detailed information regarding their usability. Crucially, within this age group, there was no validated holistic assessment of physical literacy, and, by in large, educational impact of assessments was judged to be poor.

**Conclusion:** This review highlights that assessments should examine psychometric properties, and reporting of this should be comprehensive and transparent, to enable researchers and practitioners to make informed judgements. Whilst the lack of a validated, authentic and feasible assessment highlights the need for such tool to be developed in this age group.

PROSPERO REF: CRD42017061010 CRD42017062217

Key words: measurement, children, physical education, physical, affective, cognitive.

# Learning effects of the Didactic Model of Game Action Competences on tactical performance of school age football players

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Saturday, 22nd June - 11:42: (Nexus 158) - Oral Paper

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*Mr. Wilder Valencia (Universidad de San Buenaventura), Dr. Elkin Arias (Universidad de Antioquia)*

## Introduction

The Didactic Model of Direct Instruction (DMDI) is the most used model for teaching football with a competitive orientation. However, it is difficult for players to learn the guidelines of tactical behavior, such as the principles of play, through DMDI. Alternative models to DMDI have not been applied and validated consistently in extracurricular sports; accordingly, DMDI is the model most frequently used in the field of football even for teaching tactical behavior to the children. The Didactic Model of the Game Action Competences (DMGAC) could be a good alternative for learning of tactical principles for the practice of football.

## Objective

To determine the effects of learning the Didactic Model of Game Action Competences (DMGAC) and the Didactic Model of Direct Instruction (DMDI) on tactical performance of school age players.

## Methods

Participants were 36 children aged 8-11 years belonging to a sports club in the city of Medellin. Subjects were randomly assigned to an experimental group in which DMGAC was implemented or to a control group in which DMDI was implemented. Each group had a teaching process according to the respective didactic model. They were evaluated in three stages on learning the fundamentals of playing football: pre-test, post-test, and in a retention test. Performance and compliance with tactical principles were measured with The System of Tactical Assessment in Football (FUT-SAT).

## Results

The results suggest that the learning effects of the DMGAC were statistically different compared to those of DMDI ( $p < 0.05$ ). The DMGAC may be an appropriate model for teaching football since the tasks proposed in this model promote the integral development of skills.

## Conclusions

The principles of the game of football are learned more effectively through an approach based on constructivism that promotes cognitive development and problem solving from a proper decision-making in game action.

# **Experiential Learning for PE Teachers**

## **PE teachers' reasoning on exclusion situations in PE – Do they have a professional vision and handling with it?**

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Saturday, 22nd June - 11:00: (Nexus 241) - Oral Paper

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*Ms. Laura Becher (Technical University Dortmund), Prof. Elke Grimminger-Seidensticker (Technical University Dortmund)*

### **Background**

Due to open learning processes peers are enabled to work on their relationships and boundaries in physical education (PE) (Evans & Roberts, 1987). In this context, a variety of studies empirically prove the effects of exclusion experiences and which outcome they have for the physical and psychological health (Baumeister & Leary, 1995). In a systematical data triangulation, different PE contexts could be identified where pupils often convey exclusion behaviour by using different strategies (Grimminger, 2014). Therefore, PE teachers have a particular pedagogical responsibility to notice the way PE contexts are used. With this in mind a “professional vision” (Reuker, 2012), including the abilities of selective attention and knowledge-based reasoning is important for a professional handling of potential exclusion processes in PE.

The focus of this study is a qualitative analysis of PE teachers' and PE teacher students' professional vision on PE situations where pupils convey exclusion behaviour. The aim is to reconstruct their reasoning on the situation and finally, to get hints for teacher education.

### **Methods**

In guided interviews, PE teachers of Elementary (n=6) and High-Schools (n=6) as well as Bachelor PE students (n=6) were asked to describe and interpret PE situations, and explain their idea of action alternatives. A text-vignette was used to present the different PE exclusion contexts. The situations were obtained from the data (video recordings) of Grimminger (2014). For analysis, the participants' comments were recorded, transcribed and will be analyzed based on qualitative content analysis (Mayring, 2004). The analysis will be performed with the software program MaxQDA.

### **Results**

The study is on-going, the results will be presented in June 2019. A first look on the data shows that the PE teachers mostly recognize the exclusion situation, however their suggested handling with the situation do not aim at finding adequate professional solutions.

## **Learning by experience and Working Knowledge during the professional integration phase of physical education teachers**

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Saturday, 22nd June - 11:21: (Nexus 241) - Oral Paper

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*Dr. Cecilia Borges (Université de Montréal), Dr. Maurice Tardif (Université de Montréal), Ms. Delphine Tremblay-Gagnon (Université de Montréal)*

Since Shulman (1986; 1987) introduced the notion of “wisdom of practice”, researchers emphasize the importance of practical, situated or craft knowledge developed through experience (Bakaman & Larson, 2016; Hoff, 2010, Tsangaridou, 2006, Rovegno, 2003). Furthermore, several researchers pointed a mitigated influence of PETE on teachers’ knowledge and an important role of field experiences in building professional knowledge. Besides, they sustained that beginning teachers learning from the experience of teaching during professional insertion. However, what are we exactly learning from the experience through teacher professional insertion? And how does it differ from the knowledge acquired during PETE? Based on the concepts of “experiential learning” (Dewey, 2007; Kolb & Kolb, 2012; Wurdinger & Allison, 2017) and “working knowledge” (Kennedy, 1983; Tardif and Lessard, 1999), we attempt to provide some answers to these questions by presenting the results of a first semi-structured interview (n=15) of a qualitative longitudinal research on the evolution of professional knowledge and teaching career during the first years of insertion. More specifically, through the multi-thematic analysis, we show the perceptions of physical education teachers about what they learn from PETE and how it’s reflected in their first experiences in the field and vice-versa. The results also enlighten practical knowledge of physical education teachers, that is presented as a form of knowledge deeply incarnated and situated. It seems mostly tinged with everyday life, personal experiences and to a source of a constant reinterpretation of the theoretical and scientific knowledge of the profession (Markauskaite et Goodyear, 2014). Thus, theoretical knowledge would be constantly questioned with regard to their relevance for the practice and would be transformed, relearned, even reconfigured. And so, is there any reason to worry about a potential negative deformation of the knowledge acquired during the initial training? Indeed, our results raise certain questions for the intellectual and cultural dimensions of teaching.

## Capoeira as a content of school Physical Education: Challenges and possibilities

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Saturday, 22nd June - 11:42: (Nexus 241) - Oral Paper

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*Ms. Thiago Souza (Paulista State University - UNESP/RC), Dr. Samuel Souza Neto (Paulista State University - UNESP/RC), Dr. Luis Rufino (Paulista State University - UNESP/RC)*

Physical Education (PE) is a tool for establishing a culture of physical activity in society. However, in the world scenario the PE has constantly lost ground in formal education (Pühse & Gerber, 2005). From this scenario, one of the ways to strengthen it, would be the relevance and the differentiation of its contents. In this sense, Capoeira, considered one of the most important manifestations in Brazilian popular culture due to its multiple focuses (dance, struggle, play, music and corporal expression), emerges as a globalizing and differentiated content. The study aims to present a proposal of structuring for the treatment of Capoeira as Physical Education content, as well as present the results of participation and involvement of the students with the classes in which the proposal was implemented. The study is characterized by an exploratory qualitative analysis, carried out in a private school in the city of São Paulo, Brazil, with participants of 360 elementary students, grade 1 - 5 (N = 87, 54% women; Mage = 12.8). It was used as a collection instrument during filming during class. From the analysis, it was understood that Capoeira constitutes an excellent tool to enhance learning, involvement and participation of students in classes, and can be as evidenced and identified in the videos. In this sense, the study contributes by providing a proposal for the organization and systematization of the Capoeira contents, as well as the importance of the variability of contents contextualized by Physical Education as a way of increasing the involvement and participation of the students in the classes.



# **Symposium 14**

## Physical Education Professionals' Social Media Use

Saturday, 22nd June - 12:45: (Nexus 239) - Symposium

*Dr. Stephen Harvey (Ohio University), Dr. Jeffery P Carpenter (Elon University), Dr. Shane Pill (Flinders University), Prof. Peter Hastie (Auburn University), Prof. Tristan Wallhead (University of Wyoming), Mr. Christopher Kinder (The University of Illinois at Urbana-Champaign), Mr. Chad Killian (The University of Illinois at Urbana-Champaign), Dr. Kevin A Richards (The University of Illinois at Urbana-Champaign), Ms. Marianna Zalvoa (The University of Illinois at Urbana-Champaign), Mx. Kaizeen Badshah (The University of Illinois at Urbana-Champaign), Ms. Ashley Tobar (The University of Illinois at Urbana-Champaign), Mr. Collin Brooks (University of Northern Colorado), Dr. Jaimie McMullen (University of Northern Colorado)*

### **SYMPOSIUM TITLE:**Physical Education Professionals' Social Media Use (300)

**Background:**Social media (SM) sites (i.e., Facebook, Twitter, Voxer, etc.) have not only fundamentally changed the ways in which individuals engage and interact with the world but they have additionally become venues for self-directed professional development and learning (PDL) for some educators. Despite these developments, there have been limited investigations into physical education (PE) professionals' SM use. In this symposium, we share findings from a number of investigations about PE professionals SM use, including studies focused on: (a) PE professionals' motivations for starting and continuing to use SM; (b) investigating PE professionals' use of the sport education curriculum model; (c) how PE professionals have used Twitter as a professional tool; and, (d) how PE professionals have utilized Twitter to overcome feelings of isolation. **Methods:**Data were collected from samples ranging from a case-study of one physical education teacher to up to a global sample of forty-eight PE professionals, and through a variety of methods such as semi-structured individual and focus group interviews, accessing SM feeds/posts, and through synchronous Twitter #chats. Data were analyzed in all these studies through an open coding process and aligned a variety of theories, including self-determination theory, constructivist dilemmas, and occupational socialization. **Results:** After initial apprehension, PE professionals in all studies described the importance of SM in helping them access and share content with like-minded others, overcome the feelings of marginalization and isolation, and engage in critically reflective discussions about up-to-date PE teaching practices. **Conclusions and implications:** Continued focus on PE professionals' SM use is required through a variety of research methods so that a better understanding of not only the benefits but also the challenges of using SM use by PE professionals can be explicated. This will enable best practices about SM use to be embedded into PE teacher education and in-service learning programs.

### **PAPER 1 TITLE:**Physical Education Professionals' Motivations for Starting and Continuing to Use Social Media (200)

**Authors:**Stephen Harvey<sup>1</sup> and Jeffery. P. Carpenter<sup>2</sup>

**Affiliation:**<sup>1</sup>Ohio University, <sup>2</sup>Elon University

**Background:**Although social media (SM) sites (i.e., Facebook, Twitter, Voxer, etc.) have become venues for self-directed professional development and learning (PDL) for some educators there have been limited investigations into physical education (PE) professionals' SM use, in particular, PE professionals' motivations for starting and continuing to use SM. **Methods:**We collected data via semi-structured individual and focus group interviews with forty-eight educators (70% had 11+ years of teaching) working in five continents and 13 countries who have actively used various forms of SM professionally for an extended period of time (+ 6 years). We analyzed these data through an open coding process and aligned our results to self-determination theory. **Results:** PE professionals started, and continued to use, social media due to feelings of autonomy and the ability to be self-directed in their PDL. Participants described the importance of SM in helping them build professional relationships through critically reflective discussions about teaching, which further assisted them in developing perceptions of teaching competence. **Con-**

**clusions and implications:** PE professionals' SM use is an important mechanism for encouraging continued engagement with PDL and, consequently, retention of PE professionals. SM use needs to be scaffolded and embedded in PE teacher education and in-service programs.

**PAPER 2 TITLE:**Dilemmas Associated with Physical Educators Employment of Sport Education in School Physical Education Programs (200)

**Authors:**Stephen Harvey<sup>1</sup>, Shane Pill<sup>2</sup>, Peter. A. Hastie<sup>3</sup>, and Tristan Wallhead<sup>4</sup>

**Affiliation:**<sup>1</sup>Ohio University, <sup>2</sup>Flinders University, <sup>3</sup>Auburn University, <sup>4</sup>University of Wyoming

**Background:** Increasingly, physical educators (PEs) are using social media and blogging platforms for professional development and learning (PDL) where they can share/discuss ideas in asynchronous/synchronous #chat. In this current study, our aim was to investigate if, how, and why PEs use (or do not use) the sport education curriculum model (SECM). **Method:** Forty-eight PEs engaged in a series of synchronous Twitter #chats about their utilization of SECM, which generated qualitative data that were interpretively analyzed using Windschitl's (2002) constructivist dilemmas framework. **Results:**PEs expressed a range of benefits, successes, constraints and implementation issues associated with SECM use. The main benefits/successes were related to pedagogical dilemmas (i.e., personal and social development, inclusion, and student motivation). However, a number of pedagogical (i.e., increased planning, managing SECM seasons, etc.) and cultural constraints (school schedules/facilities, lack of support) affected PEs use of SECM, leading them to be pragmatic and adapt SECM to their local context (i.e., shorter seasons, limited student roles, etc.). **Conclusions and Implications:** Using Twitter enabled the capture of the realities of PEs practice with SECM, which led to #chat participants suggesting ideas in real time to assist each other overcome the pedagogical and cultural dilemmas they faced with SECM use.

**PAPER 3 TITLE:**Twitter as a Professional Development Tool for Physical Education Teachers (200)

**Authors:** Christopher Kinder, Chad M. Killian, K. Andrew R. Richards, Marianna Zalvoa, Kaizeen Badshah, and Casey Cushing

**Affiliation:** University of Illinois at Urbana-Champaign

**Background:** Social media platforms are being leveraged for professional development and learning in education (PDL; Carpenter & Krutka, 2014). Twitter has become a particularly popular choice for physical education teachers (PE) to connect and share practical ideas and resources (Harvey & Hyndman, 2018). The purpose of this study was to understand how physical educators engage with and connect through Twitter as an online professional network for PDL. **Method:**A total of 32 physical educators (24 Males, 8 Females) participated in this study. Data were collected using in-depth interviews and through content analyses of participants' Twitter feeds. Data were coded and analyzed using a standard interpretive approach (Strauss & Corbin, 2015). **Results:**Twitter provides a platform for PE teachers to *access, share, and learn content*. Participants also create *informal learning networks* through Twitter that have implications for reducing feelings of marginalization and isolation. The PE teachers felt an obligation to both *contribute to and consume content*, but also discuss *initial apprehension* related to making their practices public. **Conclusion:**Twitter provides a medium for PE teachers to share knowledge and learn from other professionals. It enables networking, which reduces feelings of marginalization and can help teachers to stay up-to-date on best practice.

**PAPER 4 TITLE:**Using Social Media to Overcome Isolation while Teaching Physical Education (200)

**Authors:** Collin Brooks and Jaimie McMullen

**Affiliation:** University of Northern Colorado

**Background:** Physical education teachers (PETs) have reported isolation in schools, and evidence suggests that isolation is considered a highly influential reason for leaving the profession (Mäkelä, Hirvensalo, & Whipp, 2014). Although there is a growing body of evidence implying social media (SM) platforms such as Twitter can help PETs feel less isolated (Harvey, & Hyndman, 2018), there is little research on how this occurs. The purpose of this study

is to explore one PET's engagement in an online #PhysEd community and her perceptions of its impact on isolation.

**Method:** One female PET with six years teaching experience participated in this study. Data were collected through semi-structured interviews, retrieval of public SM (Twitter) posts (Sparkes, & Smith, 2014), and informal participant communication. **Results:** Three themes were evident across data sources: (1) taking initiative to lessen isolation, (2) development of different types of support systems (i.e., online, in-person and hybrid); and, (3) an evolution of SM participation (i.e., thinking about it, lurking, participating and sharing, and online teacher leader). **Conclusion:** SM can provide a mechanism of support, collaboration, and leadership development allowing PETs to feel less isolated. Further research should be conducted on SM's role in lessening PET isolation.

# **Concepts and Discourse on Physical Literacy**

## Alternative discourses to Physical Literacy in Physical Education degree programmes in Aotearoa New Zealand (NZ)

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Saturday, 22nd June - 12:50: (Nexus 126) - Oral Paper

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*Dr. Antony Card (Mount Saint Vincent University), Dr. Ben Dyson (The University of North Carolina at Greensboro)*

Physical literacy is considered by UNESCO to be the foundation of a physical education programme and it has been widely adopted in the U.K., Canada and the United States in both sport and physical education. In 2013, the U.S. National Physical Education Standards replaced the term “Physically Educated” with “Physically Literate”. Sprake and Walker (2013), state that physical literacy as a framework should be integrated into Initial Teacher Educator programmes. Newton and Bassett (2013) describe the changes to the University of Bedfordshire Physical Education Teacher Education programme as an example of how physical literacy can become an underpinning ideology. Despite these global assertions, Macdonald and Enright (2013) noted that a new Australia-wide curriculum for Health and Physical Education, released in 2014, did not include specific references to physical literacy but could possibly be in the future. Similarly, the notion of physical literacy does not exist as a term within the New Zealand HPE curriculum (MOE, 2007) despite incorporating physical literacy into sports programmes. The purpose of this study was to understand whether physical literacy has a place within programmes of physical education in NZ universities. Assuming an interpretivist epistemology, eight faculty members from the main physical education degree granting universities in New Zealand and two representatives from Physical Education New Zealand (PENZ) were interviewed using a guided interview approach. Ethical approval was provided by the University of Otago. Themes that were drawn from the evidence were: Do we need a new concept?; It’s just a rose by any other name; We already have a holistic curriculum; Measurement challenges; and Concerns for neoliberal influences on health and physical education. The themes described how physical literacy does not ‘fit’ within PE degree programmes in NZ and provided a useful critical commentary on physical literacy in physical education.

## **Drawing the blueprint: A physical literacy-oriented physical education teacher education program**

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Saturday, 22nd June - 13:11: (Nexus 126) - Oral Paper

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*Prof. Deng-Yau Shy (National Taiwan Normal University), Dr. Raymond Sum (The Chinese University of Hong Kong),*

*Dr. Feng-Min Wei (National Taiwan Normal University)*

Since the concept of physical literacy (PL) has been considered in the agenda of Taiwan's ongoing curriculum innovation, it is beneficial for teacher education institutions to reform their PETE programs in corresponding with the philosophical underpinning and concrete practices of PL. To do this, those teacher educators who coordinate and operate individual programs should collaboratively work as an alliance to discuss and plan for what a PL-oriented PETE program looks like. This study aimed to collect and synthesize teacher educators' knowledge of developing a PL-oriented PETE program as well as its outcomes of teaching practitioners' preparation. 7 Taiwanese teacher educators who were familiar with PL and had at least 5 years of experiences of preparing preservice teachers were recruited to participate in this qualitative case study. These participants were divided into two groups (3 in elementary school group and 4 in middle and high school group) and each was interviewed as a focus group. Thematic analysis was adopted to understand and interpret focus groups transcription and the trustworthiness of interpretation was achieved through techniques of triangulation and member checking. Preliminary results revealed that 1) the knowledge-practice incoordination and the experience of being "quasi-apprenticeship of observation" were the key issues for program renewal; 2) PE preservice teachers were expected to be the practitioners who can apply what they learn in teacher education coursework and learn to teach PE in an innovative way; 3) however, the strategies and actions informing by teacher educators were relatively diversified according to their knowledge and experiences of teacher preparation in the native context. It is recommended that teacher educators can constitute a community of practice to reach a common consensus on the blueprint of PL-oriented PETE program and start to progressively practice and revise it in particular teacher education institutions of Taiwan.

# **Diagnostic Competence, Motor Skills and Fitness in PETE**



# The Relationship between diagnostic competence and quality of instruction by physical education teachers and its benefit for student's motivation and anxiety

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Saturday, 22nd June - 12:50: (Nexus 237) - Oral Paper

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Prof. Miriam Seyda (University of Flensburg, Germany)

## Background and purpose

In Teacher Education, the necessary competences to be acquired by future teachers become increasingly in focus, in which diagnostic competence has a central relevance. This is because diagnostic competence represents an important prerequisite in the approach to teaching, as pedagogical decisions and actions, e.g. task selection or differentiation measures, are carried out against the backdrop of the diagnosis of learning and learning performance prerequisites (Hodge & Coladarci, 1989; Südkamp, Kaiser & Möller, 2012). In this context, it is found out that high diagnostic competence in particular, coupled with high quality of instruction, best supported the cognitive learning of students (Ohle & Mc Elvany, 2015). Therefore the aim of the presented study is to find out to what extent this also applies to physical education teachers and their teaching. Whether or not both aspects have an effect of student's learning requirement, for example motivation and anxiety in physical education class, will be examined.

## Methods

43 physical education teachers (3<sup>rd</sup>/4<sup>th</sup> grade) assessed the physical performance of each child in their class (739 students in total) on a scale of 1 to 5. The teachers' assessment was connected to the student's physical performance data, which was measured in a test (4 test tasks, 5-point scale). The diagnostic competence was determined through the ranking component and the teachers were split into two groups (high vs. low). 739 students completed a questionnaire (5-point scale) comprising items to measure components of quality of instruction (e.g. differentiation measures) in physical education class (Hermann et al., 2015), as well as items to measure anxiety and motivation. The 43 classes were differentiated by a median split according to high and low quality of instruction. It was furthermore considered whether the physical education teachers surveyed had a high or low diagnostic competence. Differences among students concerning motivation and anxiety were determined.

## Results and conclusions

Those students whose physical education teachers had high diagnostic competence *and* demonstrated high quality of instruction showed a significant higher level of motivation ( $F = 8.901$ ;  $df = 3$ ;  $p = .000$ ;  $\eta^2 = .02$ ). There was no impact on anxiety of the students. The results indicate the possible benefit of promoting diagnostic and teaching competence of (future) physical education teachers.

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## **Motor skills and physical fitness of physical education and health recruits: New consideration in PETE programs**

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Saturday, 22nd June - 13:05: (Nexus 237) - Oral Paper

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*Prof. Félix Berrigan (Université de Sherbrooke), Prof. Sylvain Turcotte (Université de Sherbrooke), Prof. Sylvie Beaudoin (Université de Sherbrooke)*

There has been a marked decline in aerobic fitness test performances of children and adolescents in recent decades (Tomkinson et al., 2007). Furthermore, the prevalence of competency in fundamental movement skills is low among school-age children (Hardy et al., 2013). Considering these two trends, to what extent these results have impacted the level of motor skills and physical fitness of recruits applying to our PETE program? The objective of this study is to describe a 8-years trend in PETE recruits' motor skills and physical fitness. Over the 8-years period, 2645 PETE recruits in a Canadian University were evaluated. Six motor skills (jump, throw, kick, roll, shoot a basketball and volleyball pass) and five physical fitness components (coordination, agility, power, force and stamina) were assessed using qualitative and quantitative criteria. Temporal trends and changes in motor skills and physical fitness were assessed using logistic regression analysis while controlling for gender and age. Results show that during the 8-years observation period, the motor skills and physical fitness of PETE recruits significantly decreased. Findings raise two important issues related to 1) the development of PETE students' own motor skills and physical fitness during their initial training and 2) the orientation of recruitment efforts towards recruits who have diverse fitness, wellness and physical activity backgrounds. These issues and their implications for PETE programs will be discussed.

# **Physical Activity Promotion and Prescription**

## Physical activity prescription for chronic disease: effects of a 6-month intervention led by physical educators

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Saturday, 22nd June - 12:50: (Nexus 275) - Oral Paper

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*Dr. Alexandre Mouton (University of Liege), Ms. Charlotte Ocula (University of Liege), Ms. Sara Da Costa Rocha (University of Liege), Prof. Marc Cloes (University of Liege)*

### **Background and purpose**

Physical activity (PA) prescription has the potential to be an important therapeutic agent for all ages in primary, secondary and tertiary prevention of chronic disease (Thornton et al., 2016). However, physicians report that they do not deliver PA counselling because of limitations in time, knowledge, confidence, and practical tools (Meriwether, Lee, Lafleur & Wiseman, 2008). Physical educators have the required skills to address those issues in encouraging patients to adopt an active lifestyle that will reduce the incidence of their chronic conditions.

### **Methods**

With a PA prescription from their doctor, patients with chronic disease took part to a 6-month intervention supervised by physical educators in a municipality of the Liege's area (Belgium). The program was composed of weekly sessions of physical exercise focusing on the 4 dimensions of physical fitness according to international recommendations (ACSM, 2016). Monthly motivational sessions were organized to promote active lifestyle. Monthly assessments included PA level (Ricci & Gagnon, 2011), SF-36 (Ware & Sherbourne, 1992), and Senior Fitness Test (Rikli & Jones, 2001). Representations and motivations of the coaches and participants were interrogated before and after the intervention.

### **Results**

Preliminary results after 1-month intervention on 19 patients ( $68.6 \pm 10.8$  years) with chronic cardiac ( $n=11$ ), neurological ( $n=2$ ), metabolic ( $n=1$ ), oncological ( $n=4$ ) or spinal ( $n=1$ ) diseases exposed significant improvements of their lower ( $p=.03$ ) and upper ( $p=.01$ ) body strength, and aerobic endurance ( $p=.02$ ). No significant changes were observed for PA level and SF-36 scores. Further results will provide information about the impact of motivational sessions on the adoption of an active lifestyle.

### **Conclusions**

PA prescription supervised by physical educators has the potential to bridge the missing link between hospital revalidation performed by physiotherapists and autonomous physical activity. If outcomes are favorable, it could provide an advocacy to inspire key decision makers and policies to ameliorate chronic diseases care highlighting the contribution of physical educators.

# Opinion and practices of health professionals on physical activity promotion in cancer patients

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Saturday, 22nd June - 13:11: (Nexus 275) - Oral Paper

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*Mr. Jérôme Rompen (University of Liege), Mr. Yoric Petitfrère (University of Liege), Prof. Marc Cloes (University of Liege)*

## **Background and purpose**

Literature suggests that health professionals (HPs) can play an important role in promoting physical activity (PA) in cancer patients (Jones et al., 2004). This study had three purposes: (1) analyzing HPs' knowledge and opinion about PA for cancer patients; (2) examining practices, barriers and roles that they identify when considering PA promotion in their patients; (3) determining factors that may enhance practices in this field.

## **Methods**

This study comprised two phases. The first phase had a qualitative approach: 12 HPs participated in a semi-structured interview about their views and practices regarding PA promotion in cancer patients. The second phase used a quantitative approach: based on the findings of the analysis of the interviews and on the relevant literature, an online questionnaire was created, tested and sent to professional health organizations, hospitals and medical centers involved in oncology. A total of 68 HPs participated in the survey.

## **Results**

In both phases of the study, HPs seemed to be aware of the benefits of PA for cancer patients and considered that they have to play a role in promoting PA in that specific population. However, only 25% (n=17) of HPs were familiar with the official PA guidelines. According to our results, HPs discuss the topic of PA with more than 7 out of 10 patients ( $7.11 \pm 2.61$ ). Lack of time and lack of knowledge about PA were identified as barriers to PA promotion and lack of knowledge was associated with a lower rate of interventions.

## **Conclusions and implications**

Our findings suggest that improving HPs' knowledge about PA and how it can be proposed to cancer patients could help them to promote PA and to encourage their patients to consult a PA specialist. Such HPs' professional development should be considered as an interesting topic for sport pedagogy specialists.

## Medical prescriptions for Sport-Health in France: analysis of its structuration

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Saturday, 22nd June - 13:32: (Nexus 275) - Oral Paper

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*Dr. Christelle Marsault (University of Stra)*

Registered in the 2016 health law, the device « sport-health » in Strasbourg was a model to institutionalize a medical prescription of sport for patients with chronic diseases. In policy transfer studies, Tournay (2014) describes this coupling between decision and implementation as an institutional isomorphism. This study sought to examine to which extent the contribution of public actions crystallize pre-existing social norms of sport practices. How is this device becoming a model of sport-health?

A first set of documents and interviews of the coordinator in 2013, then of the two coordinators in 2015 describes the system at three different times. It allows outlining the objectives, conceptions and implementations of the interventions. Then, we interviewed six educators using three sets of indicators: issues of the system, trajectory of the educator and importance of this system for the sport structure to which he belongs.

We studied types of sport-health practices to identify the area of intervention within the system. Sport-health practices results from an adaptation of pre-existing local practices. These practices evolve according to the trajectories of the actors in a context of political changes. This context is not just a mere system of constraints, but rather relies on models, arguments and rules to function, and its trajectory evolves gradually over the course of action.

Through practices and discourses of educators, our results reveal that the uses of sports practice changes less with characteristics of pathologies than with social objects of sports institutions. By building on already legitimate models of practice, the system is part of a continuation of public action already underway in the field of health, sport and social integration. This state prior to the creation of the device weighs on it, less as a constraint system than a set of possibilities used to support the operators.

# **Factors Related to Physical Activity among Schoolchildren**



# Physical activity and mental health of school-aged children and adolescents: A rapid review.

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Saturday, 22nd June - 12:50: (Nexus 154) - Oral Paper

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*Dr. Kristy Howells (Canterbury Christ Church University), Ms. Iva Glibo (International Council of Sport Science and Physical Education)*

## Background

Mental health problems among children and young people are recognised as major threats to their well-being and are associated with significant costs to them and to wider society. The World Health Organisation described mental health problems as “the most significant health concern for children and adolescents in developed countries” (Scuhrcke et al. 2008, p.43). If untreated, these conditions can have severely detrimental effects on young people’s development, their educational attainments and their potential to live fulfilling and productive lives (Kieling et al. 2011).

## Methods

This study examined the evidence regarding the effectiveness of physical activity as a non-medicinal treatment for mental health concerns among school-aged children and young people. Using a rapid review methodology, which is a shortened form of systematic reviewing, this paper identifies 16 suitable papers published between 1<sup>st</sup> January 2007 and 20<sup>th</sup> August 2017, that were conducted in school physical education or school based physical activity contexts; presented evidence on direct association between physical education or school based physical activity and identified outcomes; and was an empirical study or a review of a cluster of connected empirical studies.

## Results and Conclusion

The evidence gathered and to be presented within this paper suggests that school-based physical activity has an important role to play in protecting young people from mental illness, and has the potential to save lives through helping to reduce feelings of hopelessness, suicide and self-harm. Social interactions and resilience are particularly important and could be supported through a provision of appropriately devised physical activities, and especially team sports. Physical activity is especially valuable for girls in combatting mild to moderate depressive symptoms. Activity selection deserves serious consideration, as inappropriate provision can worsen, rather than help, psychological problems.

## Psychological, social and contextual factors underpinning persistence in physical activity in senior high-school students

Saturday, 22nd June - 13:11: (Nexus 154) - Oral Paper

*Dr. Christophe Schnitzler (1.Univ. Strasbourg, EA 1342 – E3S - Equipe d'accueil en Sciences Sociales, F-67000 Strasbourg), Dr. François Potdevin (2.Univ. Lille, Univ. Artois, Univ. Littoral Côte d'Opale, EA 7369 - URePSSS - Unité de Recherche Pluridisciplinaire Sport Santé Société, F-59000 Lille, France), Prof. Yvonne Delevoye (3.Univ. Lille, CNRS, CHU Lille, UMR 9193 - SCALab - Sciences Cognitives et Sciences Affectives, F-59000 Lille, France)*

According to the World Health Organization, adults should practice at least 30 min.day<sup>-1</sup> and children 1h.day<sup>-1</sup> of physical activity (PA) to adopt a healthy lifestyle. But surveys from this same organization show that about 80% of school aged children declare not achieving this objective. Things get even worse during adulthood, when Physical Education (PE) stops being a compulsory subject. Research related to psychology have pointed out intention to persist in physical activity as a key element to explain regular engagement in PA. In the present study we aimed to use results from a pre-selected list of questionnaires to test the social ecological model of physical activity. A total of 190 senior high-school students [16-19 y/o] participated in the study evaluating their intention to be physically active in their leisure time over the period of 1 month. Amongst the questions, the level and the nature of motivation for physical activity, the degree of physical inactivity, the level of peer and parental support, the economical status, the engagement in out-of-school sport were determined using validated questionnaires. A general linear model revealed that persistence in physical activity could be predicted from a model including out-of-school engagement ( $\beta=0.31$ ), level of enjoyment ( $\beta=0.30$ ) and mastery ( $\beta=0.18$ ), parental support ( $\beta=0.13$ ) and inactivity time ( $\beta=0.11$ ). All these factors were significantly linked to persistence level ( $p<0.05$ ). Overall, these findings confirm the social ecological model of physical activity, in that level of persistence in PA depends on the psychological but most importantly on the social and the pleasurable aspects of the activity.

## Children's physical activity play in Norwegian After-School Programs

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Saturday, 22nd June - 13:32: (Nexus 154) - Oral Paper

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*Mrs. Siv Lund (Oslo Metropolitan University), Prof. Knut Løndal (Oslo Metropolitan University), Dr. Kirsti Riiser (Oslo Metropolitan University)*

In Norway, after-school programs (ASPs) are expected to provide care and supervision for children aged six to ten years, and to offer them opportunities for play, cultural and leisure activities. More than 80 % of first-graders (six year olds), attend after-school programs between 10 and 20 hours each week.

The aim of the qualitative study described in this presentation, was to develop knowledge about Norwegian first-graders' experiences of physical activity play in after-school programs. The authors apply a life-world approach to the study, and the theoretical perspective were influenced by phenomenological philosophy. The research question that guided the study was: How do first-graders experience their physical activity play in the after-school program with respect to interaction with other children?

Fourteen six-year-old children from seven ASPs participated in the study. We utilized "walk-along" interviews to generate information about children's experiences. This implies that the interviews were performed while the children, one at a time, guided the interviewer through her/his favorite outdoor play areas at the ASP. The qualitative data was analyzed using thematic content analysis.

Preliminary results indicate that child-initiated physical activity play performed together with children spoken about as 'friends' are emphasized as a favourite among the children.

This underline the social aspect as a key factor of their physical activity play. Furthermore, the results show that the children had strong opinions about their physical activity play in the ASP, and they expressed them clearly. The children's interests varied and they mentioned, among other things, activities such as climbing, to swing, cycling and different kinds of ball activities.

The presentation emphasizes the importance of acknowledging children's experiences and perspectives toward play, and emphasizes that play can contribute to development of emotional and social competencies.

# **Impact of School Based Physical Activity Programs**

## **The association between early year's physical activity, motor skills and school readiness.**

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Saturday, 22nd June - 12:50: (Nexus 155) - Oral Paper

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*Mr. Dan Jones (Teesside University), Dr. Alison Innerd (Teesside University), Dr. Emma Giles (Teesside University), Dr. Esther Van Sluijs (University of Cambridge), Dr. Liane Azevedo (Teesside University)*

Early year's physical activity is essential to support a number of health and developmental outcomes in both the short and long term. Studies have established the relationship between physical activity and motor skills in early years, but to date none have looked at the relationships between physical activity and motor skills with school readiness, as measured by the Early Years Foundation Stage profile (EYFS).

The present study looks at the association between 4-5 year old children's physical activity, their motor skills and the children's school readiness (measured using the EYFS). This study addresses several themes of the conference, particularly sub-theme 1: Physical Education and Physical Literacy, or sub-theme 5: Youth and Community Development.

The study is ongoing, at the time of writing, physical activity and motor skills data have been collected for 111 children. The outcomes for EYFS data (collated in the summer) cover the overall level of development, and achievement of specific learning goals (e.g. writing, moving and handling and relationships) that produce the overall level of development.

Understanding whether physical activity or motor skills are associated with different aspects of school readiness, allows specific targeted interventions to be designed; and could have key implications for policy and practice.

# Are physically active preschool teachers more prone to organize opportunities for movement in preschool?

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Saturday, 22nd June - 13:11: (Nexus 155) - Oral Paper

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*Dr. Ann-Christin Sollerhed (Kristianstad University), Dr. Jan-Eric Ekberg (Malmoe University)*

## **Background and purpose**

Adults are important to inspire children to physical activity and to challenge their motor learning (Williams et al., 2008). Children imitate adults' movements (Barnett et al., 2016), adopt habits and develop their habitus, often unconsciously (Bourdieu, 2005). Preschool teachers are important adults who meet children when physical and motor development are most intense.

The aims were to investigate preschool teachers' perceptions of physical activity and gross motor skills in the preschool in relation to own physical activity habits and habitus for movement.

## **Methods**

Professional preschool teachers (n=349) working in 68 preschools with children 1-6 years old, attended a survey with questions about competence and experiences to teach gross motor skills, own exercise habits, memories of physical activity habits in their own childhood. The participation rate was 56% (n=622). Dichotomies of variables were done close to the median. Significance level was  $p < 0.05$ .

## **Results**

About 58% of the preschool teachers estimated themselves to be competent to lead and promote children's physical activity and gross motor skills. Teachers who were active in leisure-time, activated the children in movement programs at least every other day to a higher degree than the more inactive (33% vs 21%;  $p=0.021$ ). Preschool teachers who had positive memories of their own parents' encouragement to exercise were physically active, at least twice a week, in leisure-time compared to teachers with less positive memories (66% vs 45%;  $p<0.000$ ).

## **Conclusion and implications**

Preschool teachers who are physically active in their leisure-time are more prone to organize opportunities for movement in preschool. The teachers' own background (habitus) might have an impact on their willingness to offer movement occasions for children in the preschool setting.

## Participation in physical activity recess programs in secondary schools in Flanders

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Saturday, 22nd June - 13:32: (Nexus 155) - Oral Paper

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*Mrs. Hannelore Drijvers (KU Leuven), Prof. Hans van der Mars (Arizona State University), Prof. Jan Seghers (KU Leuven), Prof. Peter Iserbyt (KU Leuven)*

**Background and purpose:** Recess can help students increase their daily physical activity (PA) and contribute to reaching the recommended minimum of 60 minutes of daily PA (SHAPE, 2017). The effect of PA interventions and programs during recess have been studied recently. Yet, little is known about the effect of age, gender, and skill level on voluntary participation in such programs. The aim of this study was to a) give an overview of PA programs offered by post-primary schools during recess, and b) investigate how student participation varied as a function of age, gender, and skill level. **Methods:** A survey was conducted with 1910 students (1010 females, 900 males, age 12-19) from 15 post-primary schools. Physical education (PE) teachers categorized students as low- (186), average- (556), or high-skilled (328) based on previous motor assessment scores in PE. Chi square analysis was used to investigate effects of age, gender, and skill level on PA participation during recess. **Results:** Of all post-primary schools surveyed, 82% offered at least one PA recess program during the past year, of which 58% were team sports and 42% were individual sports or activities. Overall, students participated more in team sports (25%) than in individual sports (13%), 62% did not participate. Students participated less with increasing age; 44.7% in first grade, 37.8% in second grade and 29.9% in third grade ( $\chi^2(2)=30.96$ ;  $p<.001$ ;  $ES=.13$ ). Boys participated more in physical activity recess programs than girls (55.5% vs. 24.9%) ( $\chi^2(1)=185.83$ ;  $p<.001$ ;  $ES=.31$ ). Low skilled students (19.9%) participated less than average skilled (28.6%) and high skilled students (41.4%) ( $\chi^2(2)=28.67$ ;  $p<.001$ ;  $ES=.16$ ). **Conclusions and implications:** Recess programming should be designed to attract a larger proportion of girls and low-skilled students, possibly by connecting these programs with the content and pedagogy of PE.

# **Physical Literacy and Philosophy**



## Fantasmatic logics of Physical Education

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Saturday, 22nd June - 12:50: (Nexus 156) - Oral Paper

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*Prof. Mikael Quennerstedt (University of Örebro), Dr. Louise McCuaig (University of Queensland), Mr. Andreas Mårdh (University of Örebro)*

Historically, physical education (PE) has embraced practices that promise an idealized scenario in terms of e.g moral and aesthetic development, and the building of national identity as in Ling gymnastics, or a healthy and fit population seeking to achieve national health objectives through exercise oriented programs (Kirk 2010, Tinning 2011). As Kirk and Tinning highlight, these practices are ideological and this presentation seeks to further explore the ideological workings of PE with a particular focus on a more recent ‘seductive’ practice – physical literacy.

In the presentation we draw on Glynos’s (2008) and Mårdh’s (2019) work on logics and ideology to explore the case of physical literacy, and to consider what an approach that interrogates *social, political and fantasmatic* logics might reveal about PE practice.

We begin with a brief overview of dominant PE practices, identifying the manner in which the logics of each practice has resulted in roads to closure and a movement towards ideology. Following this, we focus on physical literacy to investigate how this emerging practice might represent yet another road to closure. Here we provide illustrations from across the PE and sport community to identify the social and political logics that underpin this practice.

Specifically employing Glynos’ (2008) notion of beatific and horrific narratives , we then explore the sport, public health, and educative fantasmatic logics of physical literacy to reveal the shared ideological workings of this collection. Together, the logics show the increasing seduction of physical literacy and its operation as an all-inclusive grand narrative. In conclusion we discuss what is promised in the name of physical literacy and how its ever-expanding purview involves an over-investment in its beatific narratives regarding the physically literate citizen which, potentially, closes down opportunities to engage critically with this recent development in PE policy and practice.

# A review of different international approaches to the definition and core elements of physical literacy

Saturday, 22nd June - 13:11: (Nexus 156) - Oral Paper

*Prof. João Martins (Laboratório de Pedagogia, Faculdade de Motricidade Humana & Unidade de Investigação e Desenvolvimento em Educação e Formação, Instituto de Educação Universidade de Lisboa (FMH), Portugal), Prof. Marcos Onofre (Laboratório de Pedagogia, Faculdade de Motricidade Humana & Unidade de Investigação e Desenvolvimento em Educação e Formação, Instituto de Educação Universidade de Lisboa (FMH), Portugal), Dr. João Mota (Laboratório de Pedagogia, Faculdade de Motricidade Humana, Universidade de Lisboa.), Prof. Chris Murphy (European Physical Education Association), Prof. Rose-Marie Repond (European Physical Education Association), Ms. Helen Vost (Youth Sport Trust International), Dr. Bruno Cremonesi (Syndicat National de l'Éducation Physique), Dr. Andjelko Svrđlim (Syndicat National de l'Éducation Physique), Ms. Mojca Markovic (Sports Union of Slovenia)*

**Background and purpose:** Physical literacy (PL) is a complex and an inclusive concept that highlights the value of movement for health, active citizenship and human flourishing (Whitehead, 2010). PL has been defined, interpreted and operationalized in many ways, which has led to concerns that the PL concept might become lost (Shearer et al., 2018). The present narrative review sought to identify and critically analyse the main international approaches to the definition, philosophical tenets and elements of PL.

**Method:** Five different databases (PubMed, Psycinfo, SportDiscus, ERIC, Web of Science), special issues, seminal works, reports, books and websites were sourced for relevant contributions to the scope of the review. Two authors carried out independently the data analysis of each selected paper/source of information. A deductive-inductive approach allowed the identification of four main themes: characteristics of the works selected, definitions, philosophical tenets and core elements of PL.

**Main results:** Most definitions analysed were influenced by Whitehead (2010) and International Physical Literacy Association (IPLA, 2019) definition of PL. However, divergences exist concerning, for example, the holistic and lifelong journey conceptions of PL. Three philosophical concepts were found to underpin in a minority of works (monism, existentialism and phenomenology). The philosophical tenets are often missing both in research and practice. Most commonly identified core elements of PL were: physical (fundamental motor skills, motor competence), psychological (motivation, confidence), cognitive (knowledge, understanding), behavioural (physical activity), social (interaction with others), interacting with the environment and a focus on lifelong journey.

**Conclusion:** A growing consensus in terms of PL has been evidenced. Despite this, ensuring clarity and consistency across the definitions, philosophical tenets, core elements and PL assessment and development is further needed. Robust evidence-based PL research is required, concerning the validity of instruments, effectiveness of programmes, and for understanding PL across all ages, environments and cultures.

**Keywords:** literacy, physical literacy, physical education, physical activity, review.

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## **‘PhyLit’: An european project to advocate Physical Literacy as a key competence for lifelong learning**

Saturday, 22nd June - 13:32: (Nexus 156) - Oral Paper

*Prof. Marcos Onofre (Laboratório de Pedagogia, Faculdade de Motricidade Humana & Unidade de Investigação e Desenvolvimento em Educação e Formação, Instituto de Educação Universidade de Lisboa (FMH), Portugal), Prof. João Martins (Laboratório de Pedagogia, Faculdade de Motricidade Humana & Unidade de Investigação e Desenvolvimento em Educação e Formação, Instituto de Educação Universidade de Lisboa (FMH), Portugal), Prof. Rose-Marie Repond (European Physical Education Association), Prof. Chris Murphy (European Physical Education Association), Ms. Mojca Markovic (Sports Union of Slovenia), Dr. Bruno Cremonesi (Syndicat National de l'Education Physique), Dr. Andjelko Svrdlim (Syndicat National de l'Education Physique), Ms. Helen Vost (Youth Sport Trust International), Dr. João Mota (Laboratório de Pedagogia, Faculdade de Motricidade Humana, Universidade de Lisboa.)*

This project aims to present the 2017 Erasmus+ granted project that built a case for introducing a key competency of ‘Physical Literacy’ (PL) into the European Council Framework for Key Competences for Lifelong Learning.

Five project partners from contexts of PL improvement developed arguments and some practical instruments to sustain that PL is key to successful lifelong learning and plays a crucial role in supporting European Union policy around the societal role of sport, promoting health enhancing physical activity (HEPA) and building human capital.

The partners were: Faculdade de Motricidade Humana from Universidade de Lisboa (Portugal), an High Education Institution of Physical Education Teacher Education; The European Physical Education Association and Syndicat National de l'Education Physique (SNEP, France), both organizations representing physical education teachers; the Sports Union of Slovenia, an sports for all organizations; and the Youth Sports Trust International, an organization engaged in improving youth life chances by using sport.

The project was developed according the Erasmus objectives of promoting social inclusion and equal opportunities and of fostering the partnership between sport, education and health stakeholders. In addition, the adopted process enabled partners to develop, transfer and implement innovative practice both within and beyond the organisations involved. Specifically, the project allowed to develop:

- i) an evidence base and advocacy materials to influence policy makers to consider a key competency for PL in the Lifelong Learning Framework
- ii) a framework for identifying the essential components of PL and their contributions to individual and societal change within the Physical Education, school sport and physical activity settings
- iii) two self-assessment tools to support adult people and practitioners (teachers and coaches) in reflecting on the way their current practice is providing a high quality PL offer
- iv) a tool to identify good examples of PL development oriented school Physical Education curricula

# **Physical Education and Physical Activity Programs**

## Studies of Physical Education Using SOFIT in U.S. and International schools

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Saturday, 22nd June - 12:50: (Nexus 157) - Oral Paper

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*Dr. Nicole Smith (Fresno State University), Prof. THOMAS MCKENZIE (San Diego State University)*

### **BACKGROUND and PURPOSE:**

SOFIT (System for Observing Fitness Instruction Time) is a valid and reliable tool for assessing Physical Activity levels, Lesson Context, and Teacher Behavior during physical education (PE). There is growing worldwide interest in assessing PE in order to improve program quality, and the study purpose was to assess characteristics of SOFIT PE studies conducted in the U.S. and elsewhere.

**METHODS:** We followed PRISMA guidelines and searched 10 library databases. We located a total of 800 SOFIT records (233 U.S.; 567 non-U.S.) and evaluated 305 full-texts (137 U.S.; 168 non-U.S.) for eligibility. We completed detailed assessments of peer-reviewed studies that: (a) were published in English; (b) used the standard SOFIT protocol; and (c) assessed PE in preK-12 schools.

### **RESULTS:**

Fifty-eight studies met inclusion criterion, including 29 U.S. and 29 non-U.S. studies. U.S. studies included nearly five times more lessons than non-U.S. studies (12,256 vs 2,703). All 58 studies described physical activity, 83% described physical activity and lesson context, and 53% included physical activity, lesson context, and teacher behavior. Reported reliabilities consistently exceeded 85% agreement. Common U.S. study analyses were for teacher preparation (48%), lesson location (38%), and student gender (31%), and for non-U.S. studies were student gender (59%), teacher preparation (34%), and lesson location (21%). Mean MVPA% was typically below the public health objective of 50%. Diversity for time in different lesson contexts existed within and among studies; less than 30% of studies assessed MVPA% within contexts.

### **CONCLUSIONS:**

SOFIT has been reliably used to assess PE internationally since 1991. There was substantial diversity in study characteristics and how data were analyzed and reported. Increased consistency in adhering to the SOFIT protocol and the reporting of data is needed in order to improve the generalizability of results and to provide a clearer worldwide picture of the conduct of PE.

## Organised physical activity during the school day - a review study

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Saturday, 22nd June - 13:11: (Nexus 157) - Oral Paper

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*Dr. Britta Thedin Jakobsson (The Swedish School of Sport and Health Sciences, GIH), Prof. Hakan Larsson (The Swedish School of Sport and Health Sciences, GIH)*

An increase concern for children and young people's lack of physical activity has led the Swedish government to take measures to increase the possibility for students to be physically active during the school day. According to the Swedish national curriculum students should be offered daily physical activity during the school day. In order to be able to implement movement activities that will promote physical activity we need to understand organisational and pedagogical conditions within schools. This is a review study with the aim to explore how schools, manage to facilitate regular opportunities for students age 13 to 14 to be meaningfully physically active on a daily basis. The study is part of a multidisciplinary project that investigates physical activity among adolescents aged 13-14 years, and how physical activity can be long-term sustainably implemented in schools.

The project is inspired by Siedentop's (1996) suggestion to approach the endeavour to implement regular physical activity in terms of 'valuing a physically active life' and his concept is used as theoretical framework for the analysis of the empirical material. Based on insights from scholars about effective schools and school development grounded on a learning organisations perspective, we will explore what measures schools take, e.g., regarding leadership, goal-setting, the physical environment, working methods, etc., in order to arrange movement activities as pedagogical and regular features of school days. The initial review study, peer reviewed articles, from 2003 to 2018, about interventions in schools (grade 7 to 9) with the aim of implementing physical activity during the school day are used as the empirical material. In addition, a review of 100 randomly selected secondary school's websites have been investigated regarding organisation of daily physical activity during the school day. Preliminary findings will be presented on the AIESEP Conference.

# The implementation of Health-Optimizing Physical Education in primary schools

Saturday, 22nd June - 13:32: (Nexus 157) - Oral Paper

*Mr. Kevin Kam (The Education University of Hong Kong), Dr. Alberto Cruz (The Education University of Hong Kong), Dr. Chunxiao Li (Nanyang Technological University)*

It is expected schools and physical education (PE) to play significant roles in helping school children to achieve public health objectives such as accumulation of adequate amounts of physical activity (PA) and reduction of sedentary behaviors. Health-Optimizing Physical Education (HOPE) based programmes have been proposed to attain public health objectives in schools.

Guided by the HOPE model, the study intends to inquire the effects of the school-based PA programmes on children's PA and enjoyment as well as understanding how students and PE teachers experience their learning and teaching within the programmes. Three Hong Kong primary schools (New Territories, Kowloon, and Hong Kong Island) were purposely selected and invited to develop an 8-week HOPE programme for their own school. Three PE lessons of one intact class in upper primary from each school were selected for observation and PA measurement from pedometers and ActiGraph accelerometers were collected in baseline (week 1), mid-intervention (week 8) and end-intervention (week 12), respectively. The Physical Activity Enjoyment Scale was used to measure PA enjoyment in baseline and end-intervention. Meanwhile, 3 teachers and 3 students were interviewed to collect their experiences of the implementation of the programme.

A paired samples t-test indicated a significant difference on the step count between baseline and end-intervention in New Territories school (Baseline: 204567; End: 32311,  $p < 0.05$ ) and Kowloon school (Baseline: 34285; End: 40882,  $p < 0.05$ ). Significant effects were found in Sedentary, LPA and MVPA in Hong Kong Island school and Kowloon school ( $p < 0.05$ ). Interestingly, a significant decrease in PA enjoyment was found in Hong Kong Island school (Pre: 1.67; Post: 1.42,  $p < 0.05$ ).

The interview results revealed that PE teachers played an important role affecting the implementation of the school based PA programmes. Most students and teachers valued HOPE and agreed that the approach could help student learning in physical education and increase their awareness of PA and PA levels in schools. It was also found PE teachers had difficulties in preparing lesson tasks and designing related school events in increasing PA levels for school children. These findings are useful for PE teacher educators and teachers develop pragmatic strategies in improving the practice of HOPE in primary schools in Hong Kong.



# **Social Impact on Performance**

# Motives and perceived impact of foreign players in Polish top table tennis leagues on clubs' competition and training systems

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Saturday, 22nd June - 12:50: (Nexus 158) - Oral Paper

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*Prof. Michal Lenartowicz (Jozef Pilsudski University of Physical Education in Warsaw)*

## **Background and purpose**

The research focused on foreign athletes working in Polish top table tennis clubs. The aim of the research was describing athletes' motivation of moving to Poland, their previous sport careers, adaptation process, as well as their future plans.

## **Methods**

Individual interviews with foreign athletes and Polish coaches were applied. The sample included 27 foreign athletes from top Polish table tennis clubs (11 females [mean age 27, mean training years – 21] and 16 males [mean age 29.6; mean training years 23]) and 8 Polish coaches (mean age: 46 mean coaching experience - 18 years).

## **Results**

Investigated female athletes came from Belarus, China, Czech Republic, Ukraine, and Slovakia. Most of them did not live permanently in Poland. Investigated male athletes came from Belarus, China, UK, India, S.Korea, Russia, Sweden, and Italy. Asian athletes stressed numerous significant differences of the table tennis training system with partner coaching style in Poland and authoritarian style in China. Most frequently reported motivations for moving to Poland included the will to continue professional sports career, lack of opportunities for further sports development in the country of origin and looking for a higher salary. Some athletes (e.g. males from UK and India) arrived in Poland to develop their sports careers and play with new competent players, in a different sport and cultural setting (positive motivation). Majority were pushed out from the home country sport competition system, and have chosen professional emigration because of no other choice if willing to continue career (negative motivation). Coaches declared foreign players contribute positively to Polish table tennis, but they have also reported that some Polish players perceive them as a threat to their sport careers.

## **Conclusions and implications**

Tested methodology and research tools open a way to further research on sport migrants in table tennis and other sports.

## MOROCCAN HIGH LEVEL ATHLETES (1956-2016) By Fatima ELFAQIR, PhD

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Saturday, 22nd June - 13:11: (Nexus 158) - Oral Paper

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*Prof. Fatima EL FAQIR (Université Mohammed V: Faculté des Sciences de l'Education/ IRFC)*

This study deals with Sports in contemporary Morocco on the grounds of a historical standpoint. This is the case of the general conditions prevailing in the country as regards women's rights, their presence in the public sphere (as defined by Habermas) and the difficulties they have to face because of cultural and social prejudice and stereotypes. Along with these conditions, the study analyses the main stages, modalities (trainings) and "incentives" that have paved the way for the emergence of female athletes, the achievements of an elite at various levels, and how some of them retrospectively perceive their sporting trajectories.

Narratives and oral testimonies of twenty-one selected athletes have in fact provided a large part of the raw material relied upon in this thesis. The use of this sort of data helps compensating, up to a certain extent, the lack of substantial official archives and specific academic studies dealing with sport's history in Morocco. However, because of their personal and subjective dimension, testimonies and memory remain problematic in many respects. Additional complications are due to the particular "statute" of the author of this thesis - having been herself an athlete and member of the National Athletic Training Institute.

Despite these obstacles, the study, which the author would like to consider as a contribution to the historiography dealing with Morocco's recent past and "immediate history", tried nevertheless to analyse and assess the various stages that Athletics, performed by girls and women in this country, went through, with its ups and downs, from its early beginning to nowadays.

Keys Words:

High Level Athletics. Detection. Sporting itinerary. Reconversion

# Determinants of students' values towards physical activity: the role of parents' values and school support

Saturday, 22nd June - 13:32: (Nexus 158) - Oral Paper

*Prof. Amy Sau Ching Ha (The Chinese University of Hong Kong), Dr. Johan Yau Yin Ng (The Chinese University of Hong Kong), Dr. Wai Chan (The Chinese University of Hong Kong)*

## Background and purpose:

Student's value for physical activity (PA) may be developed via parents and school. Based on the ecological model, parents and school are contextual influences to children. Hence, we hypothesized that when parents valued PA more, students may also value PA more. We also hypothesized that school's support for PA may be positively related to student's value. The aim of the current study is to compare the effects of parents and school on student's value for PA. We also explored whether parent's value and school's support played a different role by grades of primary students.

## Methods:

Parents and primary students ( $N = 1585$  dyads) each were invited to fill in an online survey. Students reported on their own value for PA. These students also reported their perceived level of school's support for PA. Parents reported their own level of value for PA. Pearson correlation and Fisher r-to-z transformation tests were conducted to explore differences on significance of correlation between the upper versus lower primary students.

## Results:

Our hypotheses received mixed support. Parent's value and school's support were positively related to student's value in upper primary student ( $r_s \geq .18, p_s < .001$ ). However, for the lower primary students, only school's support was positively associated with student's value. Fisher r-to-z transformation showed that school's support demonstrated a stronger correlation in lower primary students ( $z = 3.54, p < .001$ ).

**Conclusions and implications:** This study provided insights on how families and school linked with attitude towards PA in children. Findings generally indicated the importance of the school's support regardless of levels of students. Parent's value might have a greater impact on upper primary students than the lower. Implications may be the prevailing role of school's support across lifespan stages. For older children, parents may provide health professionals with another platform to cultivate a favourable attitude for PA.

# **PE Teacher Attitudes and PETE Strategies**

## Physical Education Teachers' Perception of their Workplace

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Saturday, 22nd June - 12:50: (Nexus 241) - Oral Paper

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*Ms. Jessica DAbreo (MM's Chandrashekar Agashe college of Physical Education), Dr. Shraddha Naik (MM's Chandrashekar Agashe college of Physical Education)*

*Physical education teachers (PETs) work in schools having different educational boards, situated at different places and having different working conditions. There are a variety of working conditions that exists in the schools that have an impact on teachers and their teaching. The purpose of this study was to gain an understanding of how physical education teachers perceive their workplace. To gather data the PETWES (Physical education Teachers' Work Environment Survey) was designed and administered to 105 physical education teachers (60 male and 45 female) through SurveyMonkey tool. The data was analysed using descriptive statistics. This data led to the following conclusions: PETs were found to be less satisfied with the opportunities available for professional development, Physical education is considered a marginal subject in the schools, aspects of work environment affected PETs willingness to teach, PETs seemed to be satisfied with the workload assigned and resources available to teach PE and PETs found the school leadership to be effective. These conclusions give insight of the workplace conditions that are present in the schools which will be useful for pre-service teachers.*

**Keywords:** Perception, Physical education teachers, Workplace

## The changes in the Faculty of Sports Sciences on the Preparation of Visually Impaired Students to Profession

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Saturday, 22nd June - 13:11: (Nexus 241) - Oral Paper

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*Dr. Ferda Gursel (Ankara University)*

Inclusive education has been gained a new approach on the principle that “regular schools should accommodate all children, regardless of their physical, intellectual, emotional, social, linguistic or other conditions” (UNESCO, 1994). This principle is expanded in 2030 Agenda for Sustainable Development to “providing the needed assistance for persons with disabilities and emphasizing the social inclusion of persons with disabilities”. In Turkey, the individuals with disabilities (IwD) have right to make an application for enrollment of FoSS for last 3 years. Therefore, the number of IwD in the FoSS is increasing day by day. Although the obstacles to IwD entering university settings are started to be removed, it cannot be said that the education given here is inclusive. Although both the inclusive learning environments and the stakeholders in the institutions should be ready for students with disabilities, little is known about how this process can be provided. Starting from this point, the aim of this case study was to explore the transformation process of FoSS in accordance with the visually impaired students (VIS). The study was conducted in a FoSS in Turkey and the participants were 2 VIS and their peers and supervisor, lecturers of FoSS. Data sources were; semi-structured interviews, reflections, video recordings of VIS’ courses and field notes. All data analysed through inductively content analysis. The findings showed that “continuous and progressive awareness trainings” provided changing attitudes of stakeholders and design of learning environments, “Interaction of (dis)abilities” provided change in attempts of peers and in management attention about IwD and “dissemination of experiences” were provided transfer of in-faculty experiences to out of faculty experiences. So, inclusive education can be possible when firstly the awareness of all stakeholders can be increased and then the dissemination of experiences can be provided through the reciprocal interaction among all the stakeholders.

## Improving teacher educator's reflexive practice through the use of student autobiographical narrative inquiry

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Saturday, 22nd June - 13:32: (Nexus 241) - Oral Paper

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*Ms. Lauren Hennig (McGill University), Dr. Lee Schaefer (McGill University), Dr. Douglas Gleddie (University of A), Ms. Hayley Morris (University of Alberta)*

The purpose of this study was to (1) better understand how Physical Health Education Teacher Education (PHETE) students might be engaged to take on a critical agenda that would increase their willingness to teach in culturally responsive ways, and (2) engage in more socially just forms of PE. While contemporary classrooms are more diverse than ever, many preservice teachers are unsure how to teach with social justice in mind. It would seem that PHETE educators are at a similar loss, failing to provide a clear understanding of how to incorporate social justice practices to PHETE students (Tinning, 2000). It is a challenge made more difficult by a desire for status quo that balances with increasing ontological insecurity by reinforcing traditional approaches (Tinning, 2000, p.250).

Using autobiographical narrative inquiry, students explored reactions to dominant discourses that have shaped their identities and perception of their PHETE program. They were challenged to think critically about how their own experiences may be different than their future students. We used narrative inquiry methodology and one participant's experience with autobiographical narrative inquiry to illustrate how the process not only impacted the student, but in turn imparted meaningful lessons to the teacher educator through increased awareness building and reflection, leading to a modelled practice of reflexive pedagogy.

The purpose of this paper is to illustrate how teacher educators' reflexive practice benefits from engagement in cultivating critical thinking, self-awareness, and empathy in PHETE students through engagement in autobiographical narrative inquiry. Reflexive pedagogy, in this case autobiographical narrative inquiry, is a response to traditional performance pedagogy and allows for the introduction of complex social discourse through individual reflexivity. Due to the relational nature of this instructional method, we, as teacher educators, could not help but be influenced by our attempts at adopting more responsive strategies.



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