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European Association for Practitioner Research
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PREFACE

EAPRIL is ...

EAPRIL is the European Association for Practitioner Research on Improving Learning. The association promotes practice-based and practitioner research on learning issues in the context of formal, informal, non-formal, lifelong learning and professional development with the aim to professionally develop and train educators and, as a result, to enhance practice. Its focus entails learning of individuals (from kindergarten over students in higher education to workers at the workplace), teams, organisations and networks.

More specifically

- Promotion and development of learning and instruction practice within Europe, by means of practice-based research.
- To promote the development and distribution of knowledge and methods for practice-based research and the distribution of research results on learning and instruction in specific contexts.
- To promote the exchange of information on learning and instruction practice, obtained by means of practice-based research, among the members of the association and among other associations, by means of an international network for exchange of knowledge and experience in relation to learning and instruction practice.
- To establish an international network and communication forum for practitioners working in the field of learning and instruction in education and corporate contexts and develop knowledge on this issue by means of practically-oriented research methods.
- To encourage collaboration and exchange of expertise between educational practitioners, trainers, policy makers and academic researchers with the intent to support and improve the practice of learning and instruction in education and professional contexts.
- By the aforementioned goals the professional development and training of practitioners, trainers, educational policy makers, developers, educational researchers and all involved in education and learning in its broad context are stimulated.

Practice based and Practitioner research

Practice-based and practitioner research focuses on research for, with and by professional practice, starting from a need expressed by practice. Academic and practitioner researchers play an equally important role in the process of sharing, constructing and creating knowledge to develop practice and theory. Actors in learning need to be engaged in the multidisciplinary and sometimes trans-disciplinary research process as problem-definers, researchers, data gatherers, interpreters, and implementers.

Practice-based and Practitioner research results in actionable knowledge that leads to evidence-informed practice and knowledge-in-use. Not only the utility of the research for and its impact on practice is a quality standard, but also its contribution to existing theory on what works in practice, its validity and transparency are of utmost importance.



Context

EAPRIL encompasses all contexts where people learn, e.g. schools of various educational levels, general, vocational and professional education; organisations and corporations, and this across fields, such as teacher education, engineering, medicine, nursing, food, agriculture, nature, business, languages, ... All levels, i.e. individual, group, organisation and context, are taken into account.

For whom

Practitioner researchers, academic researchers, teachers, teachers educators, professional trainers, educational technologists, curriculum developers, educational policy makers, school leaders, staff developers, learning consultants, people involved in organisational change and innovation, L&D managers, corporate learning directors, academics in the field of professional learning and all who are interested in improving the learning and development of praxis.

How

Via organising the annual EAPRIL conference where people meet, exchange research, ideas, projects, and experiences, learn and co-create, for example via workshops, training, educational activities, interactive sessions, school or company visits, transformational labs, and other opportunities for cooperation and discussion. Via supporting thematic sub communities 'Clouds', where people find each other because they share the same thematic curiosity. Cloud coordinators facilitate and stimulate activities at the conference and during the year. Activities such as organizing symposia, writing joined projects, speed dating, inviting keynotes and keeping up interest/expertise list of members are organised for cloud participants in order to promote collaboration among European organisations in the field of education or research, including companies, national and international authorities. Via newsletters, access to the EAPRIL conference presentations and papers on the conference website, conference proceedings, regular updates on cloud meetings and activities throughout the year, access to Frontline Learning Research journal, and a discount for EAPRIL members to the annual conference.

More information on the upcoming 2023 Conference as well as some afterglow moments of the 2022 Conference can be found on our conference website <http://www.eapril.org>.

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INTERNSHIPS IN TIMES OF CRISIS: COLLABORATIVE PRODUCTION OF INSTRUCTIONAL VIDEOS AT A DISTANCE

Robert A.P. Reuter¹, Alain Reeff², Gilbert Busana³

¹Senior Lecturer, University of Luxembourg, 2, avenue de l'Université, 4365 Esch-sur-Alzette, Luxembourg, robert.reuter@uni.lu,

²Project coordinator, Ministère de l'Éducation nationale, de l'Enfance et de la Jeunesse, 33 Rives de Clausen, L-2165 Luxembourg, Luxembourg, alain.reeff@men.lu,

³Senior Lecturer, University of Luxembourg, 2, avenue de l'Université, 4365 Esch-sur-Alzette, Luxembourg, gilbert.busana@uni.lu

ABSTRACT

The Bachelor in Educational Sciences (BScE) at the University of Luxembourg offers a thorough and demanding teacher training program that combines academic and practical knowledge. As in many other initial teacher training programs, internships are a key part of each semester in the BScE. In the face of the COVID-19 health crisis, this essential part of our teacher training program could not be maintained. Indeed, the schools were closed, and the pupils were taught at a distance by their teachers. We therefore had to quickly innovate and set up alternative learning activities that best met the objectives of the internships. We thus asked our students to design and produce educational videos, in dyads, for the country's schools. The aim was to enable our students to develop the necessary skills to produce such learning resources and to make them available to schools via the Internet. We will describe, analyse, and evaluate the solution we had to urgently put in place and the videos that were produced as a result. We will also discuss possible lessons learned that might lead to adaptations in our training program.



INSTITUTIONAL CONTEXT

The initial teacher training programme, preparing for the profession of fundamental schoolteacher, at the University of Luxembourg offers a thorough and demanding training combining academic knowledge, professional skills, and life-long learning attitudes, necessary to meet the many challenges of their future profession as teachers. They are trained to teach in all grades of fundamental school, in classes of the so-called preparatory track (a part of lower secondary education) and in the context of students with special educational needs in Luxembourg. The curriculum takes into account the specificities of the school system and the multilingual and multicultural context of the country. The articulation between theory and practice is central to the training programme. Students learn how to develop children's competences (knowledge, skills, and attitudes) by considering their individual and cultural resources. They learn how to design, set up and manage varied and differentiated learning situations based on a chosen theoretical framework. We also place great emphasis on the analysis and critical reflection of these learning situations in order to train students to become “reflective practitioners” (Schon, 1984). During the 4-year training programme, students are also required to take responsibility for their own learning processes by carrying out various individual and group projects in school and out-of-school contexts. As the teaching profession requires teamwork, learning to work in a team is a central element of the curriculum. The development of knowledge, skills and attitudes related to the use of ICT in school contexts also plays a role, students have a compulsory course in the first year where the theoretical basis of the strategic use of ICT in education is developed (Reuter & Busana, 2019) and a course in the fourth year where students are required to develop, implement, document, analyse, evaluate and regulate techno-pedagogical scenarios (Reuter & Busana, 2018). Moreover, in the various courses related to the different disciplinary didactics, the use of ICT for teaching purposes is thematised in a more or less systematic way (see in particular Haas et al., 2021 for mathematics didactics).

As in many other initial teacher education programmes around the globe, field time (also called school-based internship), is a key part of each semester in our training. Indeed, students carry out fieldwork in the different grades of fundamental school as well as in the preparatory track and in the context of students with special educational needs. From the first semester onwards, students observe students' learning and school practices, and they participate in the design, preparation, implementation, and reflection of teaching and learning activities. During the subsequent semesters students learn to teach more and more independently of their mentors. They are indeed hosted and accompanied by field mentors (classroom teachers) on a daily basis and accompanied by university tutors on a regular, but less frequent, basis, through classroom visits, tutorials and seminars for preparation, exchange and reflection organised on the university campus.



PROBLEM ENCOUNTERED: COVID-19 CRISIS

When faced with the COVID-19 health crisis, these internships could not be maintained. Indeed, in springtime 2020 all schools were closed, and pupils were schooled at a distance by their teachers (schooling-at-home). We therefore had to quickly innovate and set up alternative learning activities that (a) would best match the objectives of the internships, (b) could be deployed relatively quickly, (c) were manageable by the team of university tutors, and (d) would not put additional burden on schoolteachers, who were struggling to organize distance learning activities for their own pupils. In addition, we sought to put in place something that would serve the real needs of schools in these times of crisis.

SOLUTION DEVELOPED AND IMPLEMENTED: A COLLABORATIVE DISTANCE LEARNING SYSTEM

After many discussions internally and with the Ministry of Education, we decided to ask our students to design and produce, in dyads, instructional videos (about German language, French language and mathematics), each accompanied by a lesson plan, for teachers in the country. The focus on German language, French language and mathematics was guided by the Ministry of Education's decision to instruct teachers to concentrate on these domains, because they were deemed essential.

The aim of the task that we gave our students was to enable our students to develop the skills needed to produce such digital learning resources, but also to produce resources with real added value for schools and with a certain technical and didactic quality, and to make them available to schools via the Internet, so that they could be used at a distance (by teachers as well as by pupils and their parents). We had a period of 4-5 weeks during which this process of design, production, revision, and publication would take place. However, we wanted to make the first educational videos available to schools relatively quickly, without making too many concessions on quality assurance. Overall, we aimed to produce 1 video per dyad per week.

The entire setup, given the lockdown conditions, had to be able to run in "distance mode" throughout all the stages, while remaining accessible to our tutors from a technical point of view, given their diversified technical skill profiles. So, we developed specific instructions for our students, we developed and published online resources, we established procedures and we put in place a number of digital tools and platforms to support the process of designing, reviewing, producing, validating and disseminating the videos. The students were provided with some theoretical background for the design and production of educational videos, a range of technical tools for pre-production, production and post-production of the video vignettes and a set of tools for communication, collaboration, and submission for publication on



an online platform. We also put in place a procedure to explain the workflow from conception to production, editing and selection to publication. Quality assurance was ensured by the guidance of tutors and a group of experts in the relevant subject didactics who advised on the videos submitted for publication and invited, if necessary, students to rework their collaborative production together with their tutor.

In order to support the students and their tutors in this task in the best possible way, we provided a number of resources and tools, such as (a) a video with explanations of the process and the resources made available/supposed to be known, (b) texts with general pedagogical and didactical knowledge, specific didactical knowledge, general knowledge on the pedagogical use of ICT (what should ICT-supported teaching look like?), specific knowledge on the pedagogical use of ICT (what should a pedagogical video look like?), (c) a video-conferencing system to facilitate the exchange of students and tutors, (d) an online system to facilitate the exchange of students and tutors., specific knowledge on the pedagogical use of ICT (what should a pedagogical video look like?), (c) a video-conferencing system to facilitate student-tutor exchanges, (d) an online system for the submission of productions and for feedback by specific didactic experts, (e) an online system for submitting video descriptions in a shared online document to facilitate the management of controls, (f) an online platform for the storage of videos, and (g) an online platform for the publication of videos and lesson plans.

Concretely, the entire process was composed of the following steps. First, students had to choose an area of competence to deal with, then define, in writing, a didactic concept for the video to be produced and write a storyboard for the video. This scenario was then sent to the tutor by email, who notified them by return email or by video conference. They could also ask for feedback from experts in specific didactics via an online forum. Then they would start producing the video with the computer tools they had at home, often a smartphone, a tablet, or a laptop. They had to be careful here, of course, to respect copyright. Once the video had been produced, they submitted it to their tutor for advice and initial validation before submitting it for publication in open access on an online portal (<https://oer-bsce.uni.lu>) together with a lesson plan describing the content and recommended use of the video. A group of didactic experts viewed each submitted video and decided whether it should be posted on the portal. If the video and the lesson plan were validated, then they were published on the online portal, including a short description and tags to allow schoolteachers to easily search for the kind of resources they needed to support their own teaching-at-a-distance activities.

Over the five weeks, a total of about 600 videos (including resubmissions) were produced, of which 264 were uploaded to the publicly available online portal. For each video there are instructions on how to strategically use it. Some are accompanied by additional worksheets for subsequent exercise activities. Users of the online portal can explore the various resources either by browsing the catalogue,



which is structured by cycle, subject area and skills, or by carrying out a targeted keyword search. Figure 1 shows a screenshot of the online publication portal, displaying one entry on the left and the navigation tools on the right. Each instructional video is displayed above the name of its authors, a description of its content and a downloadable lesson plan. Sometimes, as is the case here, there is additional instructional material that can be downloaded to complement the viewing of the videos with additional learning activities (mainly exercises).

Beziehung zwischen Raum- und Hohlmaße

VIDEO URL: <https://vimeo.com/420330290/72e9c00f2e>

Autoren: Mara LEUSCHEN & Gil KASEL

Lernziele:

Der/die SchülerIn kann Um- bzw. Berechnungen durchführen.

Beschreibung:

Zunächst werden den SchülerInnen die Merkmale eines Dezimeterwürfels genannt. Anschließend wird ihnen im Rahmen eines Rätsels gezeigt, dass in einen solchen Würfel genau 1 Liter Flüssigkeit passt.

Am Ende des Videos werden den SchülerInnen dann noch 3 Aufgaben in Verbindung mit dem im Lernvideo behandelten Thema angeboten.

Weiterführende Aktivitäten/Links:

Lehrpersonen können andere wichtige Beziehungen zwischen Raum- und Hohlmaße vermitteln.

<http://www.ganzklar.at/mathematik/RR/FH2-9.pdf> (Seite 3)

Lehrpersonen können den SchülerInnen ein Arbeitsblatt aushändigen, auf welchem Aufgaben zu lösen sind, bei denen sie Raummaße in Hohlmaße (und umgekehrt) umrechnen müssen:

<http://www.ganzklar.at/mathematik/RR/FH2-9.pdf> (Seite 3+4)

Folgendes Thema kann im Zahlenbuch behandelt werden: Kapitel 47 – Rauminhalt (Volumen)

Unterrichtsplan als PDF:

[Mathématiques-Cycle4-Kasel-Leuschen-V2](#) **DOWNLOAD**

CHERCHER UNE RESSOURCE

Recherche ...

Catégories

- Trails (5)
- Vidéos (264)

Cycles

- Cycle 1 (59)
- Cycle 2 (62)
- Cycle 3 (79)
- Cycle 4 (94)

Branches

- Langues (135)
 - Luxembourgeois (41)
 - Allemand (72)
 - Français (35)
- Mathématiques (140)

Compétences

- Langues (132)
 - Production orale (19)
 - Compréhension de l'oral (69)
 - Production écrite (54)
 - Compréhension de l'écrit (18)
- Mathématiques (140)
 - Espace et formes (62)
 - Nombres et opérations (55)
 - Grandeurs et mesures (34)
 - Résolution de problèmes d'arithmétiques (13)

ENVOYER

Réinitialiser



Figure 1: Online publication portal displaying an example of an entry for an instructional video (on the left) and the navigation tools (on the right).

CRITICAL ANALYSIS OF THE FUNCTIONING AND IMPACTS OF THE LEARNING SYSTEM

It should be recalled that the distance learning system described above was developed and implemented in response to the emergency health crisis related to COVID-19 in 2020. Our critical analysis of its functioning and impacts is certainly not intended to have the qualities of systematic empirical research, which would have been planned in advance. We did neither carefully and strategically plan this learning system ahead of time, nor did we have the opportunity and means to plan and execute a systematic research study to analyse and evaluate this collaborative distance learning system. Our critical analysis is rather the result of a post-hoc reflection upon our own, more or less improvised, educational practice. Its development was certainly based on our various theoretical and practical knowledge of higher education teaching principles as well as on our collective wisdom regarding our specific institutional and professional context, but we did not have the means (nor the time) to put in place, in parallel, a systematic research study allowing us to document the functioning of this setup and to evaluate its impacts in quantitative ways. We have therefore limited ourselves here to (1) describing a higher education teaching practice that may serve as a source of inspiration for others, (2) critically analysing and evaluating post-hoc how it worked and what impacts it had, (3) identifying the lessons learned and (4) formulating perspectives for future practices in our institutional context.

Overall, we found that the solution implemented under emergency conditions worked well. We all learned to deal with the situation on the job, students and tutors alike. The solidarity and collaboration between all those involved was remarkable. Everyone seemed motivated to do well, to help each other and to face the challenge of the situation. Working under time pressure allowed some to show what they were capable of and to feel a certain pleasure and a rewarding sense of competence and self-efficacy. The tutoring of students required a very flexible mental and temporal availability from the tutors, which was possible for some of us (given the lockdown, we had nowhere else to be than in our respective home offices), but more challenging for others (who needed to take care of their own children's educational activities at home). And, in the longer term, it was a heavy emotional and cognitive load for all of us, which did generate some tensions in the team. In the face of the urgency, some things were possible that we would never have dared to consider in normal times. Nobody would have dared to even consider replacing internships with some other learning activity, for instance, for good reasons. Additionally, some things became more visible, which would normally escape our attention. We noticed that some students needed to work on their content knowledge and on their pedagogical content



knowledge (e.g., how to effectively teach certain mathematical or grammatical concepts to young children) and thus realized that under normal internship conditions, we tutors would less directly see that these learning needs existed in our students, given that field mentors would normally accompany them in designing and preparing lesson plans. Thus, our exchanges on the didactic foundations of teaching activities with our students were more intense, also because there was less time pressure associated with normal field time (where a foreseen learning activity needs to happen when it is planned to happen, because you cannot have the pupils simply do nothing in class). The importance of the complementarity of the different kinds of expertise present in our team of tutors became more obvious.

The feedback we received from the schoolteachers was mostly positive. Knowing that we had all contributed to overcoming a (health and educational) crisis was gratifying for our students and our tutors and it contributed to a heightened sense of self-efficacy in some. The students learned to create and produce multimedia videos for an authentic audience and were motivated to do well. It was a good opportunity for our students to develop digital and techno-pedagogical skills (Koehler & Mishra, 2009), which they had never had the (systematic) opportunity to develop before. It was also a good opportunity to work on and revise less mastered content knowledge. If you produce a pedagogical video that will be published online, then you cannot take the risk of having a wrong understanding of what you want your pupils to learn.

However, we also must admit that the quality of our students' productions varied. Many of the videos were too long and too complicated, especially for younger students. The planning and production process made us all more aware of certain gaps in our students' content knowledge, in their pedagogical knowledge, in their pedagogical content knowledge and in their technological pedagogical knowledge. Those gaps were especially visible in our first years' students.

Moreover, many of the educational videos produced were mostly about learning and teaching events (Verpoorten et al., 2007) where the initiative is on the teacher's side (reception-transmission and modelling-imitation). The subsequent use of educational videos by teachers in the field is therefore more likely to correspond to an integration of ICT in education strategy of the directed instruction type (Roblyer & Doering, 2013). Moreover, the task of producing teaching resources for an unfamiliar target audience was very difficult for our students, especially when compared to the task of teaching a specific class where the needs and resources of individual students are better known. But in return, this situation made many students more aware of the importance of taking into account the socio-cultural context and resources of their class.



LESSONS LEARNED AND FUTURE DEVELOPMENTS

Following this critical analysis, we have drawn some lessons from our experience of developing and implementing a collaborative distance learning system, the aim of which was to replace, under pressure, in a short time and for a short period of time, field time as a central element of training in teaching practice. We have also developed some ideas for future developments, some of which have already had repercussions on our current teaching practices.

We have certainly realised that this learning system has enabled us to continue to function in the face of an unforeseen emergency and also to help our students to develop certain skills directly related to the act of teaching, such as (a) confrontation with the subject matter (content knowledge) to be taught to pupils, (b) planning of learning activities on the basis of theoretical foundations (pedagogical knowledge and pedagogical content knowledge), (c) preparation of teaching materials (in this case instructional videos) and (d) awareness of the importance of taking into account the socio-cultural and cognitive resources of pupils, as well as (e) adequacy of explanations given in relation to these resources. On the other hand, we all agreed that this learning system cannot replace field time in schools, as it only covers part of the skills to be developed in the domain of teaching practices. We were obviously aware of this from the start, but can appreciate its value, and the associated challenges, even more now.

We also found that the production of instructional videos led, quite naturally, to our students conceiving learning and teaching from a rather objectivist and transmissive pedagogical posture. This is probably linked to the effects of pre-existing social representations, but also to the inherent characteristics of the video medium, which easily lends itself to a directed instruction approach.

Given the variation in the quality of the various instructional videos produced and the knowledge gaps (disciplinary and didactic) made visible in their design, we will reflect on the possibility of including the design and production of instructional videos as one training activity among others, not necessarily as teaching materials for actual school classes. We rather see them as fruitful opportunities to uncover our students' implicit conceptions of learning theories, their content knowledge, and their pedagogical content knowledge, as well as moments to force our students to become more systematically aware of the importance of the adequacy of explanations and instructions in relation to their pupils' socio-cultural and cognitive resources.

Our first experience with the collaborative design and production of instructional videos has clearly shown us that this task is easier in some respects for our students than we would have thought before embarking on this adventure. But we are also aware that, if we decided to make such a task a standard learning activity in our study programme, then other aspects of this design and production process would merit



specific and in-depth support, particularly as regards to the principles of creating effective educational videos in terms of student learning (Muller, 2008).

We have used this opportunity to set up a platform for publishing our students' work and we have, in the meanwhile, already started to use it to share other productions of our students from other courses and thus to valorise them more and more by giving them an authentic audience and actively contributing to the development of inspiring pedagogical practices in the country's schools. We wish to extend this to other courses and other student productions in the future. We could, for instance, publish (selected) bachelor theses to showcase what our students learn at the university.

Finally, in terms of potential avenues for scientific research, we have here a fairly vast catalogue of instructional videos which could lead to a systematic analysis, particularly with regard to implicit representations of learning and teaching, with regard to the understanding of the content knowledge and pedagogical content knowledge, but also with regard to the technical and media characteristics of the videos themselves. On the other hand, it would have been relevant to conduct interviews or questionnaires with students and tutors in order to study in greater depth the diversity of experiences of the different actors involved in our training system and to identify avenues for development for our university teaching practices.

CONCLUSIONS

Overall, we are quite satisfied with the collaborative distance learning system that we were forced to set up under pressure. We received positive feedback from teachers who still use the instructional videos from our online portal, years later. Our students clearly used this opportunity to develop digital and techno-pedagogical skills (Koehler & Mishra, 2009) that they had never had the opportunity to develop before. We discovered that it was feasible to ask our students to design and produce instructional videos and we have since extended our online portal to publish more and more of our students works for the national (and international) school community to find inspiration for innovative practices.

ACKNOWLEDGMENTS

Alain Reeff had worked at the University of Luxembourg until end of August 2022, where he oversaw coordinating and managing the organisation of school-based internships, before moving to the Ministry of Education for his current job.



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