# **Home-based and school-based parental involvement in children’s secondary education in three European countries: associations with family and school characteristics**

Running Head. Parental involvement in secondary school

# **Home-based and school-based parental involvement in children’s secondary education in three European countries: associations with family and school characteristics**

**Abstract**

Although evidence generally suggests that parental involvement is beneficial for children’s academic success, much less is known about the determinants of this involvement. The study examined the associations between parents’ characteristics and beliefs and two types of parental involvement (school-based and home-based) during secondary education in three European countries. Data from 1757 parents from 19 public secondary schools in three European countries (6 in Luxembourg, 6 in France and 7 in Belgium) were analyzed using multiple regression analyses. Models globally predicted significant but relatively low portions of variance in parents’ home- and school-based involvement. Different patterns of results appeared according to the three very diverse samples. When controlling for family background and school environment, parents’ self-efficacy like the place accorded to parents in the school appeared to be central indicators of parental involvement. Results are discussed in terms of research on parental involvement and family-school communication, as well as on school practice with parents.

**Keywords:** Home-based parental involvement; school-based parental involvement; secondary school; school-family relationship; parents’ beliefs; regression analysis; adolescence.

**Introduction**

Parental involvement is nowadays considered as efficient by scientific literature and welcome by school actors to support and positively influence the child’s schooling (Castro, Exposito-Casas, Lopez-Martin, Lizasoain, Navarro-Asencio, Gaviria, 2015; Erdem & Kaya, 2020). Several models have been developed by authors both to better understand the concept of parental involvement as well as trying to grasp its multidimensional complexity (Eccles & Harold, 1996; Epstein, 2013).

It is nevertheless commonly accepted that what parents do and put in place to support their child can take place both in the family context (home-based parental involvement) and in the school context (school-based parental involvement) (Deslandes & Bertrand, 2005). According to Sheldon (2002), parental involvement at home refers to all interactions observed between parents and children directly related to schooling (for example, parents' educational aspirations or discussion about the school day), all formal and informal family activities related to school learning as well as the direct investment of parental resources in their child's school education (help with homework, for example). Parental involvement in school is related to several parents’ activities at school (for example, attending a teacher-parents meeting participating in a school event or volunteering in the child's school).

While it is important to better understand the concept, the main question, however, remains: “why parents decide to get involved in their child's school education”. Hoover-Dempsey, Sandler and colleagues (Hoover-Dempsey & Sandler, 1997; Hoover-Dempsey, Walker, Sandler, Whetsel, Green, Wilkins, & Closson, 2005) have provided some answers to this question with their theoretical model of the parental involvement process. According to this model, parents’ home-based and school-based involvement depends on (1) motivational beliefs (i.e., parental role construction and parental self-efficacy); (2) parents’ perceptions of invitations for involvement (general school invitations and specific teachers and child invitations); and (3) parents’ perceived life context (i.e., skills, knowledge, time and energy that may conflict with involvement activities). Further, research has provided empirical support for the direct association between several family/child characteristics and parental involvement (Camacho-Thompson, Gillen-O’Neel, Gonzales & Fuligni, 2016; Wang, Deng & Yang, 2016).

In this article, we examine parental involvement during secondary education in three different samples from Luxembourg, France and Belgium. We precisely investigate in what extent parents’ and child’s exogenous characteristics, and parents’ perceptions, beliefs and academic expectations are associated with types and levels of parental involvement at home and at school. The next section will expand on these determinants of parental involvement.

**The core determinants of parental involvement**

*Child’s characteristics*

School level is a significant moderator of the association between parental involvement and student’s academic performance with much more parental involvement at the levels of preschool or elementary school than at secondary school (Green, Walker, Hoover-Dempsey, & Sandler, 2007). This is partially because the relationship between parents and children changes with time. The older the child, the more he or she shows a desire for independence and autonomy (OCDE, 2018). Similarly, student’s gender also influences parenting styles and their involvement in education (Guo, 2018).

*Family socio-demographic characteristics*

For kindergarten and elementary education, family socio-demographic characteristics highly influence the frequency and ways in which parents get involved (Arnold, Zeljo, & Doctoroff, 2008). However, the relation between parents’ socio-economic status and involvement in secondary schools is still unclear. Focusing on school-based involvement, it is well documented that families from lower SES background are less involved in school-based strategies (Camacho-Thompson et al., 2016; Shumow, Lyutykh, & Schmidt, 2011; Wang et al., 2016). However, moving to home-based involvement, some research (Altschul, 2012; Wang et al., 2016) show that economically disadvantaged parents were less involved whereas other studies posit that SES is considered as a non-significant predictor of home-based involvement (Camacho-Thompson et al., 2016; Shumow et al., 2011). Parental education, when analysed separately from the SES variable, is also considered an important predictor of parental involvement both at home (Park & Holloway, 2013) and at school (Shumow et al., 2011).

Similarly, there is a trend towards immigrant parents being less likely to participate in school activities and having little contact with schools whereas they do get involved in home-based strategies (Crozier & Davies, 2007; Hill, Witherspoon, & Bartz, 2018).

*Parents’ perception of school climate*

A significant amount of research showed that school climate can be responsible of the quality of home-based and school-based parental involvement (Addi-Raccah, Amar & Ashwal, 2018; Barr & Saltmarsch, 2014; Day, 2013; Goldkind & Farmer, 2013; Whitaker & Hoover-Dempsey, 2013).

Goldkind and Farmer (2013) highlights the positive influence of school climate on parents’ perceptions regarding opportunities given by schools to be involved. Similarly, Day (2013) shows that parental involvement is reinforced when schools develop constructive relationships and communication with parents. The author stressed the need for parents to be listened to by the school and its stakeholders.

In a similar way, Addi-Raccah et al. (2018) and Barr and Saltmarsch (2014) suggested that school principals can play a decisive role in the connection with parents and consequently, reinforce the opportunities of involvement for parents: the more the parents see the school as an open structure, ready to making closer school and families, the more parents are likely to get involved in their child’s schooling; parents considering this task as part of their educational role. Along the same lines, Whitaker and Hoover-Dempsey (2013) pointed out that school climate (middle school) is the most predictive factor for parents’ educational role beliefs.

*Parental self-efficacy*

According to Hoover-Dempsey and colleagues (Hoover-Dempsey & Sandler, 1997; Green et al., 2007), parental self-efficacy is a core variable associated with parental involvement.

Self-efficacy refers to the parent's sense of being able to play a significant role in their child’s academic success. It is related to Bandura's sociocognitive theory (1989) which stands that who is confident in his/her ability to solve a specific task is more willing to commit to it than if he negatively assesses his/her chances to succeed. Thus, efficacy theory offers specific suggestions to understand parents’ behavior in the domain of parental involvement (Hoover-Dempsey & Sandler, 1997). Many studies highlighted the positive association between parental self-efficacy and their decision to get involved in their child’s schooling (e.g., Deslandes & Bertrand, 2005; Eccles & Harold, 1996; Reiniger & Lopez, 2017). However, as shown by Reiniger and Lopez (2017) or Green et al. (2007), parents with lower self-efficacy are in some cases those who are more involved at school. Nevertheless, little is known about how parental self-efficacy operates to influence parental involvement during adolescence since most of the research have been set in elementary and preschool contexts.

Trust towards school

Trust towards school is a mean of improving the functioning of the institution (Epstein & Sheldon, 2006). More specifically, it refers to a reciprocal relationship in which parents and teachers trust each other to act consistently in the best interests of students (Bower, Bowen & Powers, 2011).

Several studies tested the association between trust toward school and parental involvement. All of them (Houri, Thayer & Cook, 2019; Strier & Katz, 2016) showed that there is a trust component in parental behavioral and relational engagement dimensions: the more the parents are confident in their child’s teacher, the more they are involved in their child’s school cursus.

**The present study**

While most of studies about parental involvement have been conducted in the United States during preschool and elementary education, this study investigates types and level of parental involvement during secondary school in three European countries. Parents’ characteristics (SES, migration background, highest parents’ educational level), children’s characteristics (age, gender, retention), and parents’ beliefs and expectations (perception of school climate, perception of the importance given to parents in the school, parents’ self-efficacy to supervise homework, trust towards school, academic expectations) are then used to predict parents’ self-reported home-based and school-based involvement.

**Materials and method**

*Research questions*

The review of the literature leads to the following research questions:

1. Which of the factors studied are most significantly and strongly associated with parental involvement at secondary school level?
2. Is there a difference according to the type of parental involvement under study?

*Participants and procedure*

Ethics approval was granted for the present study by the Ethics Review Panel of the University of Luxembourg.

Data from the European ERASMUS+ research project (masked reference) were used in the present study. The 4067 students involved in the study were asked to give a paper version of the questionnaire to their parents. School principals informed parents directly about the aims of the study and about confidentiality and anonymity of the collected data. Questionnaires were returned by parents via reply paid envelopes. Parents completed the survey in reference to one child (referred to as the study student). Participation was made on a voluntary basis. A total of 1757 parents of grade 7 to grade 12 students enrolled in 19 public secondary schools (6 in Luxembourg, 6 in France, and 7 in Belgium) participated in the study. Between 0 and 10% of missing data was observed on item-level in the questionnaire. To retain the full sample of 1757 parents, multiple imputation (Rubin, 1987) was done using the Multivariate Imputation by Chained Equations (MICE) algorithm in IBM SPSS 24. The imputation model included all parental variables that were available from the questionnaire. Five imputed files were created, and results were automatically combined by pooling. Table 1 describes the three samples.

*>>> Please insert Table 1 here*

As reported in Table 1, the three samples are quite different. For Luxembourg, it has to be noted that the sample is composed of students attending secondary vocational school. It explains why the proportion of students characterized by a grade retention and by a migration background are particularly high. Moreover, while Luxembourg is known to be one of the European countries with the highest mean life level, the mean social position index for the Luxembourgish sample was the lowest of the three samples in the present study. For France, the sample of younger students is underrepresented as there were only two colleges participating in the study. The Belgium sample has the highest proportion (43%) of 14-year-olds students or less. Il is also characterized by the highest proportion of privileged students with high mean social position index and high percentage of families with higher or university education level. These large differences provide an opportunity to test our hypotheses in three specific contexts which nevertheless are not representative of their respective students’ population.

*Measures*

**Parental involvement in child’s school education**. Family Involvement Questionnaire-High School (FIQ-HS; Grover, Houlihan & Campana, 2016), a 25-item scale, has been used to collect data about the nature and level of parents’ participation in their teenager’s school and academic work. Parents were asked to complete a six-point Likert scale, representing the frequency of each item as it occurs within their family (*never*, *rarely*, *sometimes*, *often*, *quite often*, *always*). The scale targets three distinct factors: home-based involvement, home-school communication, and school-based involvement. Home-based involvement (9 items; Cronbach’s alpha = .84) refers to the degree to which parents get involved in their child’s education at home (e.g.: talking to teenager about careers they are interested in). Home-school communication (11 items; Cronbach’s alpha = .87)describes several forms of contact parents might have with school in general and their child’s teachers in particular (e.g.: talking with teachers about difficulties at school). School-based involvement (5 items; Cronbach’s alpha = .75) refers to the extent to which parents participate in activities at school (e.g.: volunteering at school). A mean indicator was calculated for each of the three parental involvement dimensions.

**Children’s characteristics.**Information about the age (14-year-old or below, 15 or 16-year-old, 17-year-old or above), the gender (boy or girl) and grade retention status (with or without grade retention)of the children was collected.

**Socioeconomic status.**We used the social position index developed by Le Donné & Rocher (2010) which consider the socio-professional categories of the parents as well as other dimensions related to social, economic and cultural aspects. The index is calculated, for each pupil, on the basis of the parents' profession, weighted by considering the effect of professions and social situations on school success (Rocher, 2016). More precisely, the index was constructed and validated on the basis of a survey of 29544 French secondary school students conducted in 2008. This survey identified family variables that have a positive and significant influence on students' academic success, such as parents' qualifications (mother and father), material conditions (income, number of rooms in the home, room sharing, computer in the home, access to the Internet), cultural capital (number of books in the home, presence of a television in the room, time spent watching television), parents' ambition and involvement (aspirations, conversations about schooling, academic future), as well as cultural practices (sports, concerts, theater, cinema, museums, extracurricular activities). A multiple correspondence analysis was used to construct the index by associating a numerical value to each of the family variables identified according to their stronger or weaker association with academic success. Thus, using all the data collected in the survey, it was possible to standardize an average social position index per student that was no longer based exclusively on the parents' profession. This index of social position of the students is between 38 and 179. The higher this index is, the more favorable the student's family context is for academic success.

**Migration background***.* This dimension was assessed through the main language spoken at home. The language was binary coded (language of the country or not), with French as the reference for the French and Belgian samples, and with Luxembourgish for the Luxembourgish sample.

**Highest parents’ educational level***.* This dimension corresponds to the highest degree that one of the parents have obtained. The variable was binary (bachelor/master level or below).

**School climate sub-dimensions.** The school climate refers to all social relationships, values, attitudes, and feelings shared by people in the school community (management, teachers, students, parents…). In order to limit the length of the questionnaire, only 22 items from the Socioeducative Environment Questionnaire (Janosz & Bouthiller, 2007) were selected to assess six sub-dimensions of the school climate : (1) Parents’ perception of relationships between students (3 items, Cronbach's alpha of .86), (2) Parents’ perception of relationships between students and teachers (7 items, Cronbach's alpha of .90), (3) Parents’ perception of school educative climate (4 items, Cronbach's alpha of .83), (4) Parents’ perception of justice climate (3 items, Cronbach's alpha of .85), (5) Parents’ perception of belonging climate (3 items, Cronbach's alpha of .93), and (6) Parents’ perception of security climate (5 items, Cronbach's alpha of .69). A mean indicator was calculated for each sub-dimension.

**Parents’ perception of the importance given to parents in the school.**The importance given to parents in the school reflects the degree of openness of the school towards parents (Janosz & Bouthillier, 2007). Six items were used with a Cronbach's alpha of .83 (e.g., “Parents have their own place in the school”, “Parents are well informed about the activities of the school” or “Parents' opinions are sought in this school”). A mean indicator was calculated for this dimension.

**Parents’ trust toward the school.**Parental trust in school was measured using the Forsyth, Adams, & Hoy (2011) scale including 10 items (for example, “My child's school is doing what it is supposed to do”, “I really trust my child's school”) designed to measure the degree of confidence parents have in the school-family relationship. Cronbach's alpha was .93 for this scale. A mean indicator was calculated for the dimension.

**Parents’ self-efficacy to supervise homework.**This dimension was a single-item dimension. Parents were asked to say if they felt competent for helping their child with school homework.

**Parents’ academic expectations for their child.**This dimension was a single-item dimension. Parents were asked to say if they want their child obtain at least a bachelor or master degree.

**Results**

## *Descriptive statistics, correlations and means differences*

Descriptive statistics and correlations between all quantitative variables are given in Table 2. Means differences observed for the three parental involvement variables with qualitative variables are given in Table 3.

*>>> Please insert Tables 2 and 3 here*

As reported in Table 2, mean indicators of home-based involvement, home-school-communication and school-based involvement are respectively around 2.5 (between *rarely* and *sometimes*), 3.7 (between *sometimes* and *often*) and 1.9 (between *never* and *rarely*) for the total sample, as well as for each country sample.

## *Predictors of parental involvement*

Multiple stepwise regressions were conducted to predict each of the three types of parental involvement using the following blocks of variables: (1) Block 1: sub-dimensions of school climate, perceptions of the place given to parents by the school, trust towards school and self-efficacy to supervise homework, and (2) Block 2: students’ characteristics and background family variables. Tables 4 summarizes the results of the final regression models.

*>>> Please insert Table 4 here*

Home-based involvement

The model constructs account for a significant but relatively low portion of the variance of home-based involvement: 21% for the Luxembourgish and French samples, 12% for the Belgian sample and 18% for the total sample. Specifically, home-based involvement is significantly and positively associated with parental self-efficacy to supervise homework (Luxembourg, β = 0,25, p<.001; France, β = 0,20, p<.001; Belgium, β = 0,24, p<.001; total, β = 0,24, p<.001) and parental perceptions of the place given to parents by the school (Luxembourg, β = 0,27, p<.001; France, β = 0,21, p<.01; Belgium, β = 0,18, p<.001; total, β = 0,22, p<.001). When all other variables are kept constant, age is a statistically significant predictor of home-based involvement only in the French sample where parental involvement level decreases with age. Compared to 14-year-old students or less, home-based involvement is lower with 15 or 16-year-old students (β = -0,26, p<.001) and 17-year-old students or older (β = -0,34, p<.001). In the Luxembourgish sample, home-based involvement is globally lower with girls (β = -0,16, p<.001), higher for students with grade retention (β = 0,13, p<.01), and lower in families with higher SES (β = -0,11, p<.05). Sub-dimensions of school climate, trust towards school, migration background, parents’ educational level and academic expectations are not associated with home-based involvement.

Home-school communication

The model constructs account again for a significant but relatively low portion of the variance of home-school communication: 20% for the Luxembourgish sample, 32% for the French sample, 25% for the Belgian sample and 24% for the total sample. When all other variables are kept under control, home-school communication is almost exclusively associated with parental self-efficacy to supervise homework (Luxembourg, β = 0,45, p<.001; France, β = 0,49, p<.01; Belgium, β = 0,53, p<.001; total, β = 0,50, p<.001). In other words, parents who have the most frequent exchanges with teachers and school are also those who feel confident in their capacity to supervise homework of their child. In the Luxembourgish sample, home-school communication is globally lower in families with higher education or university education level (β = -0,11, p<.05) and higher for parents who have the highest academic expectations for their child (β = 0,11, p<.05). In the French sample, home-school communication is globally higher for parents who have the highest academic expectations for their child (β = 0,12, p<.05) and for parents who perceive the school climate as secure (β = 0,13, p<.05), and less frequent in low-SES families (β = -0,12, p<.05). In the Belgian sample, home-school communication is globally higher with older students (β = 0,09, p<.05, and β = 0,10, p<.05) compared to 14-year-old students or below, higher when parents consider students-teachers’ relationships as positive (β = 0,13, p<.05), and less frequent in low-SES families (β = -0,12, p<.05).

School-based involvement

The model constructs account again for a significant but very low portion of the variance of school-based involvement: 8% for the Luxembourgish sample, 10% for the French sample, 4% for the Belgian sample and 7% for the total sample. Again, when all other variables are kept under control, school-based involvement is slightly associated with parental self-efficacy to supervise homework (Luxembourg, β = 0,12, p<.01; France, β = 0,13, p<.05; Belgium, β = 0,16, p<.001; total, β = 0,13, p<.001). The perception of the place given to parents by the school is positively associated with parents’ school-based involvement in two samples (Luxembourg, β = 0.21, p<.01; Belgium, β = 0.14, p<.01; total sample, β = 0.17, p<.001). In the Luxembourgish sample, parents’ participation in school activities is slightly negatively associated with parents’ SES (β = -0.12, p<.05). In the French sample, parents’ participation in school activities decrease with older students (β = -0,24, p<.05, and β = -0,28, p<.01) compared to 14-year-old students or below. Moreover, a statistically negative association is observed between school-based involvement and parents’ perception of the school climate concerning security (β = -0.23, p<.01), suggesting that parents who consider school climate as not safe enough are also those with the highest school-based involvement.

**Discussion**

The present study investigates types and level of parental involvement during secondary school in three European countries while most studies in this field have been conducted in the United States during preschool and elementary education. We examined in what extent Luxembourgish, French and Belgian parents’ self-reported home-based involvement, school-based involvement and home-school communication are associated with parents’ characteristics, children’s characteristics and parents’ beliefs and expectations.

Belgium, France and Luxembourg are both unequal school systems. For this reason, educational reforms have been implemented to improve the quality as well as the equity of the school system in these three countries[[1]](#footnote-1). The three countries try to ensure that all parents are truly involved in the educational projects of their school or institution, and legal texts focus on the partnership between schools and families. However, some nuances can be underlined regarding parental involvement.

When looking at parental involvement at home and at school, the SES variable only explains parental involvement in Luxembourg, being parents less involved in families with a high SES (both at home and at school). These results are consistent with other qualitative studies (Ule, Zivoder, & Bois-Reymond, 2015) indicating that parents from some kind of disadvantaged social context also want the best for their children and are highly committed to their education, engaging in different involvement strategies. The age variable only plays a significant role in France, where parents' involvement at home and participation in school activities decrease with older students. To us, these differences between countries may be explained by the sample characteristics in each country. The French sample is under-represented in terms of young people; only two colleges are present in the sample, which may explain why the results of this sample are more sensitive to the students’ age. In Luxembourg, the sample is characterized by the lowest SES and the highest repetition rate. This can be explained by the fact that this sample includes significantly more pupils from vocational streams than the other two samples. So, differences in Luxembourg regarding SES could be explained by this characteristic. In Belgium there is no unique variable explaining parental involvement.

However, despite the significant differences between the three samples, results are relatively consistent. Six main transversal results can be highlighted.

**First**, mean levels of parental home-based and school-based involvement are relatively low, except for home-school communication.

**Second**, home-based and school-based involvement seem to be strengthened when parental involvement is felt to be welcome by the school. Consistent with other research findings (Deslandes, 2019; Hoover-Dempsey & Sandler, 1997; Menheere & Hooge, 2010; Park & Holloway, 2013), school openness to parental involvement is positively associated with parents’ decision to get involved on their child’s schooling at home and at school.

**Third**, positive associations were observed between the three types of parental involvement and parents’ self-efficacy to supervise homework. When parents are confident in their competencies to support their child’s schooling, they are more likely to be involved at home and at school and to communicate with teachers. If several studies have demonstrated the association between self-efficacy and home-based involvement (e.g. Deslandes & Bertrand, 2004; Giallo, Treyvaud, Cooklin & Wade, 2013; Green et al., 2007), our results also show statistically significant positive associations with school-based involvement but especially with home-school communication. The more confident parents feel in their ability to support their child academically, the more they decide to get involved regardless of the context (home or school).

**Fourth**, the associations with almost all sub-dimensions of school climate and trust towards schools were not statistically significant, contrary to our expectations.

**Fifth,** regression models showed only few and slight significant associations between types and levels of parental involvement and individual characteristics of parents or students. Consistent with the results of Ho and Willms (1996), it reinforces the idea that what parents do prevails over socio-cultural backgrounds. Contrary to other research results that show the significant and positive effect of sociodemographic data (Tang, 2015; Turney & Kao, 2009), our study showed that when schools welcome parental involvement and when parents feel confident in their abilities to support their child’s schooling, parents decide to get involved regardless their sociodemographic background and the context of involvement (home or school). Following the analysis of the legal texts of the three countries under study, we observe that partnership between the two educators is officially targeted. Moreover, the analyzed documents explicitly state that special attention must be paid to parents who are the most distant from the school system. We could hypothesize that our results would be a consequence of the implementation of these specific actions towards the most disadvantaged families in the three countries under study.

**Lastly**, the model tested in the present study explained only a modest part of the parental involvement variability observed in the three samples. This suggests that further studies could consider other predictors of parental involvement. For example, Green et al. (2007) have shown that parental home-based involvement was associated with specific child invitations for involvement (requests for parental help or support), parental role activity beliefs (parents’ beliefs about what they should do and how active they should be in relation to their child’s education) and available time and energy. For parents’ school-based involvement, they highlighted the role of specific teacher invitations for involvement in activities at school.

**Implications**

IMPLICATIONS FOR SCHOOLS AND POLICY

This study elucidates a helpful message in the field of parental involvement: it is possible to enhance parental involvement in their teenagers’ schooling. The set of exogenous variables analysed does not predict parenting behaviours to a large extent. These results are aligned with other studies set in secondary schools which register similar rates of explained variance in parental involvement by family variables (Altschul, 2012; Park & Holloway, 2013). This means, consequently, that parental engagement could be highly improved if we take actions in this direction, since feelings, beliefs and values, proximal factors influencing parental involvement (Park & Holloway, 2013; Wang et al., 2016), although sometimes difficult to model, are not impossible to change. But, what could be done more precisely?

On one hand, this study suggest, aligned with other studies (Addi-Raccah, et al., 2018; Barr & Saltmarsch, 2014), that the starting point of the "school-family and parental involvement process" would be within the school context. Because they are education professionals, the responsibility for initiating and sustaining this partnership must be taken by the school and the teachers (Menheere & Hooge, 2010; Hornby & Blackwell, 2018). Thus, given this starting assumption, it would be important to include invitations to participate from the school, the teacher, or even the child him/herself that initiate communication between education professionals and parents (Hoover-Dempsey et al., 2005). Consequently, school staff’s training becomes a “must have”. According to Epstein (2013), it is important for pre-service teachers to develop the skills within their training programme that allow them to be effective in working with parents. Teachers and school managers need knowhow on the development of an effective plan to improve parental involvement, as well as training aimed at modelling teachers’ attitudes concerning families and their parenting role. To this end, pre-service and in-service training programmes should include the issue of parental involvement in their curriculum or reinforce it in a more explicit and operational way.

On the other hand, our study reaches the conclusion that self-efficacy plays an important role influencing parental involvement, aligned with other important research (Deslandes & Bertrand, 2004; Giallo et al., 2013; Green et al., 2007; Waanders, Mendez, & Downer, 2007). Even more, whilst the cited studies have demonstrated the association between self-efficacy and home-based involvement, our results also show statistically significant positive associations with school-based involvement and with home-school communication. In this regard, some elements appear to be correlated with parents' lack of confidence in their ability to support their child at school (Hornby & Blackwell, 2018; Hornby & Lafaele, 2011; Williams & Sánchez, 2013) that should be considered to enhance parental self-efficacy.

First, parents who are not fully fluent in the teaching language may not feel comfortable interacting with their child's teacher, so it could be important to ensure that all family engagement opportunities are culturally and linguistically responsive, avoid culture bias and are linguistically accessible. In this sense, we would like to cite the Luxembourgish intercultural mediators that can be of great help in improving communication since their intervention facilitates communication and mutual understanding between all actors.

Secondly, families who encountered learning difficulties in their own schooling or who feel that they have not developed enough academic skills to effectively help their children can constitute a barrier to parental involvement. Similarly, previous negative experiences with teachers or schools may also reduce parents' confidence in supporting their child academically. Nevertheless, whatever the reason, some research (Addi-Raccah, et al., 2018; Barr & Saltmarsch, 2014) shows that parents feel their knowledge and awareness are enhanced when the school support them in their parental involvement. Thus, teachers should support parents on their involvement, guiding them and making them aware of the multiple ways they can help their children. In this regard, there is a dimension within the home-based involvement, named academic socialization (Benner, Boyle, & Sadler, 2016), which refers to the action of discussing schooling, future plans and any other school-related matter with adolescents. This type of parental involvement is highly influential in terms of students’ academic motivation and achievement in secondary schools (Castro et al., 2015; Hill & Tyson, 2009), whereas other types of involvement, such as school-based involvement, is significantly less important (DePlanty, Coulter-Kern, & Duchane, 2007; Hill & Tyson, 2009). For this reason, we argue the importance of guiding parents in the enhancement of this kind of involvement, of great influence but of little difficulty at the time, since it is based in parent-child communication, the provision of a supportive home environment and giving encouragement. Moreover, schools could be encouraged to implement a wider range of needs-based interventions to engage with parents, using a mix of approaches in school, at home, and in the community with partners and through digital technology.

However, these actions are time-consuming and energy-consuming for schools and teachers, so the inclusion of a responsible for school-family relationships in each school (who has specific hours dedicated to this task in his/her schedule) would be of great utility. Therefore, educational policies should consider the possibility of including these coordination figures in schools, which is just a tangible expression of the need to give explicit importance to the family-school relationship.

IMPLICATIONS FOR RESEARCHERS

Traditionally, researchers have identified and studied different components of parental involvement, tending to operationalize it into two wide entities consistently supported by extant theories and assessments (Camacho-Thompson et al., 2016; Wang et al., 2016): home-based and school-based involvement. However, the activities endorsed in the school-based involvement do not seek a common objective: while family-school communication is aimed at improving the child’s educational process (in particular), activities such as volunteering or participating in school decision-making organizations have the goal of improving the educational community in their set.

Our study shows that mean levels of parental home-based and school-based involvement are relatively low, except for home-school communication. Further, the model we propose explains very little variance in school-based involvement (whilst the model accounts for a higher portion of the variance of home-school communication), which means that the factors influencing parents’ decision to become involved in the communicative interactions with teachers are different from the reasons that lead them to participate in other types of activities within the school. These results are consistent with previous studies (Manz, Fantuzzo, & Power, 2004; Waanders et al., 2007) arguing the importance of taking parent-teacher communication as an independent dimension of parental involvement in lower educational levels. To sum up, this study widens the already multidimensional concept of parental involvement suggesting that it encompasses three different dimensions when analysing the secondary education context: home-school communication, home-based involvement and school-based involvement.

**Limitations**

Our study has several limitations. First, the transversal nature of the data does not allow for causal inferences. Further studies should use longitudinal research designs to avoid this limitation. Secondly, data were obtained from specific samples of students in the three countries. Findings are not generalizable to students in each of the three countries. The third limitation is that the indicator of parental self-efficacy was measured via a single item. Further studies should use several items to assess this apparently crucial dimension in the field of parental involvement. In this regard, recent studies aim at validating self-completion questionnaires about parental self-efficacy (Matthews, Hayes & Wade, 2022; McDougall & Scott, 2021). Matthews et al. (2022) derived and validated a short-form of the longer self-report scale ‘Me as a Parents’ scale (MaaPs). Four dimensions of parenting self-regulation are included in the scale: self-efficacy, personal agency, self-management and self-sufficiency. McDougall & Scott (2021) developed an instrument for measuring the parents’ self-efficacy of adolescents: Self-Efficacy for Parenting Adolescents Scale (SEPA). They could constitute a promising instrument to assess parental self-efficacy for parenting adolescents (Ages of 12 and 18).

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|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Luxembourg  (N=686) | France  (N=409) | Belgium  (N=662) | Total  (N=1757) |
| % of girls | 65.9 | 57.9 | 52.5 | 59.1 |
| % of students with grade retention | 43.6 | 13.7 | 21.0 | 28.1 |
| % of students who speak at home another language than the teaching one | 29.0 | 10.5 | 8.3 | 16.9 |
| Age |  |  |  |  |
| % of 14 -year-old students or less | 24.3 | 12.0 | 43.0 | 28.8 |
| % of 15 or 16-year-old students | 39.6 | 44.0 | 30.7 | 37.1 |
| % of 17-year-old students or above | 36.1 | 44.0 | 26.3 | 34.1 |
| Highest educational level |  |  |  |  |
| % of families – lower secondary or less | 33.5 | 8.3 | 5.0 | 17.1 |
| % of families – upper secondary school | 42.0 | 35.7 | 22.1 | 32.5 |
| % of families – higher education or university | 24.5 | 56.0 | 73.0 | 50.4 |
| Mean social position index (SD) | 92.3 (32.6) | 108.5 (36.9) | 121.7 (37.3) | 107.2 (37.7) |

**Table 1**: Description of the three samples

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Luxembourg | 1. Home-based involvement | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2. Home-school communication | ,42\*\* | 1 |  |  |  |  |  |  |  |  |  |  |  |
| 3. School-based involvement | ,44\*\* | ,18\*\* | 1 |  |  |  |  |  |  |  |  |  |  |
| 4. School climate: relationships between students | ,09\* | -0,04 | ,18\*\* | 1 |  |  |  |  |  |  |  |  |  |
| 5. School climate: relationships between students and teachers | ,15\*\* | -0,02 | ,22\*\* | ,65\*\* | 1 |  |  |  |  |  |  |  |  |
| 6. School climate: educational values | ,17\*\* | 0,03 | ,16\*\* | ,56\*\* | ,76\*\* | 1 |  |  |  |  |  |  |  |
| 7. School climate: justice | ,19\*\* | 0,05 | ,18\*\* | ,48\*\* | ,65\*\* | ,66\*\* | 1 |  |  |  |  |  |  |
| 8. School climate: belonging | ,17\*\* | 0,04 | ,18\*\* | ,42\*\* | ,62\*\* | ,64\*\* | ,63\*\* | 1 |  |  |  |  |  |
| 9. School climate: security | 0,06 | 0,03 | 0,05 | ,33\*\* | ,34\*\* | ,37\*\* | ,34\*\* | ,37\*\* | 1 |  |  |  |  |
| 10. Perceptions of the place given to parents by the school | ,32\*\* | ,09\* | ,23\*\* | ,40\*\* | ,50\*\* | ,52\*\* | ,47\*\* | ,44\*\* | ,28\*\* | 1 |  |  |  |
| 11. Trust towards school | ,26\*\* | 0,07 | ,18\*\* | ,47\*\* | ,64\*\* | ,69\*\* | ,63\*\* | ,65\*\* | ,41\*\* | ,73\*\* | 1 |  |  |
| 12. Self-efficacy to supervise homework | ,24\*\* | ,42\*\* | ,12\*\* | 0 | 0,06 | 0,02 | 0,03 | 0,06 | 0,08 | ,11\*\* | ,11\*\* | 1 |  |
| 13. SES | -,10\* | 0 | -0,07 | 0,01 | -0,06 | -,10\*\* | -0,03 | -0,04 | ,13\*\* | -0,01 | 0 | ,16\*\* | 1 |
| *Mean* | 2,68 | 3,79 | 1,98 | 4,44 | 4,64 | 4,73 | 4,65 | 4,9 | 4,54 | 4,32 | 4,63 | 3,63 | 92,3 |
| *SD* | 0,8 | 0,8 | 0,92 | 0,85 | 0,74 | 0,82 | 0,87 | 1,01 | 0,84 | 0,94 | 0,85 | 1,27 | 32,63 |
| France | 1. Home-based involvement | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2. Home-school communication | ,43\*\* | 1 |  |  |  |  |  |  |  |  |  |  |  |
| 3. School-based involvement | ,52\*\* | ,24\*\* | 1 |  |  |  |  |  |  |  |  |  |  |
| 4. School climate: relationships between students | 0 | -0,02 | -0,03 | 1 |  |  |  |  |  |  |  |  |  |
| 5. School climate: relationships between students and teachers | 0,06 | -0,03 | 0,04 | ,64\*\* | 1 |  |  |  |  |  |  |  |  |
| 6. School climate: educational values | ,13\*\* | 0,05 | 0,08 | ,45\*\* | ,60\*\* | 1 |  |  |  |  |  |  |  |
| 7. School climate: justice | ,13\* | 0 | 0,06 | ,39\*\* | ,59\*\* | ,59\*\* | 1 |  |  |  |  |  |  |
| 8. School climate: belonging | ,11\* | 0,04 | 0,07 | ,47\*\* | ,54\*\* | ,52\*\* | ,44\*\* | 1 |  |  |  |  |  |
| 9. School climate: security | 0 | ,12\* | -,11\* | ,43\*\* | ,47\*\* | ,32\*\* | ,29\*\* | ,41\*\* | 1 |  |  |  |  |
| 10. Perceptions of the place given to parents by the school | ,32\*\* | 0,09 | ,20\*\* | ,22\*\* | ,38\*\* | ,44\*\* | ,45\*\* | ,35\*\* | ,15\*\* | 1 |  |  |  |
| 11. Trust towards school | ,25\*\* | ,14\*\* | ,10\* | ,41\*\* | ,56\*\* | ,63\*\* | ,58\*\* | ,56\*\* | ,44\*\* | ,65\*\* | 1 |  |  |
| 12. Self-efficacy to supervise homework | ,32\*\* | ,57\*\* | ,21\*\* | -0,01 | -0,02 | 0,05 | 0,08 | 0,04 | ,11\* | ,12\* | ,13\* | 1 |  |
| 13. SES | -0,02 | 0,03 | 0,05 | 0,03 | -0,07 | -,20\*\* | -0,07 | -0,04 | ,13\*\* | -,12\* | -0,08 | ,16\*\* | 1 |
| *Mean* | 2,41 | 3,75 | 1,9 | 4,29 | 4,43 | 4,59 | 4,45 | 4,69 | 4,72 | 4,1 | 4,48 | 3,82 | 108,54 |
| *SD* | 0,79 | 0,89 | 0,97 | 0,9 | 0,77 | 0,87 | 0,97 | 1,09 | 0,84 | 0,9 | 0,79 | 1,31 | 36,98 |
| Belgium | 1. Home-based involvement | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2. Home-school communication | ,36\*\* | 1 |  |  |  |  |  |  |  |  |  |  |  |
| 3. School-based involvement | ,38\*\* | ,20\*\* | 1 |  |  |  |  |  |  |  |  |  |  |
| 4. School climate: relationships between students | ,11\*\* | 0,03 | 0,07 | 1 |  |  |  |  |  |  |  |  |  |
| 5. School climate: relationships between students and teachers | ,16\*\* | ,09\* | 0,05 | ,58\*\* | 1 |  |  |  |  |  |  |  |  |
| 6. School climate: educational values | ,16\*\* | 0,07 | 0,07 | ,38\*\* | ,62\*\* | 1 |  |  |  |  |  |  |  |
| 7. School climate: justice | ,22\*\* | 0 | 0,06 | ,42\*\* | ,62\*\* | ,60\*\* | 1 |  |  |  |  |  |  |
| 8. School climate: belonging | ,16\*\* | 0,06 | 0,06 | ,40\*\* | ,58\*\* | ,49\*\* | ,53\*\* | 1 |  |  |  |  |  |
| 9. School climate: security | 0,07 | 0,02 | -0,05 | ,35\*\* | ,39\*\* | ,23\*\* | ,30\*\* | ,35\*\* | 1 |  |  |  |  |
| 10. Perceptions of the place given to parents by the school | ,30\*\* | ,10\*\* | ,17\*\* | ,23\*\* | ,37\*\* | ,43\*\* | ,41\*\* | ,32\*\* | ,16\*\* | 1 |  |  |  |
| 11. Trust towards school | ,27\*\* | 0,07 | 0,08 | ,36\*\* | ,58\*\* | ,63\*\* | ,62\*\* | ,56\*\* | ,36\*\* | ,61\*\* | 1 |  |  |
| 12. Self-efficacy to supervise homework | ,24\*\* | ,47\*\* | ,17\*\* | 0,06 | 0,02 | 0,01 | -0,03 | ,10\* | 0,04 | 0,06 | 0,07 | 1 |  |
| 13. SES | -0,01 | -0,06 | -0,01 | ,09\* | -0,03 | -,15\*\* | -0,05 | ,08\* | ,10\*\* | -,10\*\* | -0,07 | ,22\*\* | 1 |
| *Mean* | 2,57 | 3,79 | 2,05 | 4,29 | 4,57 | 4,6 | 4,39 | 4,8 | 4,65 | 4,11 | 4,55 | 4,05 | 121,74 |
| *SD* | 0,65 | 0,74 | 0,78 | 0,76 | 0,69 | 0,77 | 0,87 | 1 | 0,72 | 0,79 | 0,76 | 1,22 | 37,36 |
| Total | 1. Home-based involvement | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2. Home-school communication | ,40\*\* | 1 |  |  |  |  |  |  |  |  |  |  |  |
| 3. School-based involvement | ,45\*\* | ,21\*\* | 1 |  |  |  |  |  |  |  |  |  |  |
| 4. School climate: relationships between students | ,07\*\* | -0,01 | ,09\*\* | 1 |  |  |  |  |  |  |  |  |  |
| 5. School climate: relationships between students and teachers | ,13\*\* | 0,02 | ,11\*\* | ,62\*\* | 1 |  |  |  |  |  |  |  |  |
| 6. School climate: educational values | ,15\*\* | ,05\* | ,11\*\* | ,47\*\* | ,67\*\* | 1 |  |  |  |  |  |  |  |
| 7. School climate: justice | ,18\*\* | 0,02 | ,10\*\* | ,44\*\* | ,62\*\* | ,62\*\* | 1 |  |  |  |  |  |  |
| 8. School climate: belonging | ,15\*\* | 0,05 | ,11\*\* | ,42\*\* | ,59\*\* | ,55\*\* | ,55\*\* | 1 |  |  |  |  |  |
| 9. School climate: security | 0,05 | ,05\* | -0,03 | ,36\*\* | ,39\*\* | ,31\*\* | ,32\*\* | ,37\*\* | 1 |  |  |  |  |
| 10. Perceptions of the place given to parents by the school | ,31\*\* | ,09\*\* | ,20\*\* | ,29\*\* | ,42\*\* | ,47\*\* | ,44\*\* | ,38\*\* | ,21\*\* | 1 |  |  |  |
| 11. Trust towards school | ,26\*\* | ,09\*\* | ,12\*\* | ,41\*\* | ,60\*\* | ,66\*\* | ,61\*\* | ,59\*\* | ,40\*\* | ,67\*\* | 1 |  |  |
| 12. Self-efficacy to supervise homework | ,25\*\* | ,47\*\* | ,16\*\* | 0,02 | 0,02 | 0,02 | 0,02 | ,07\*\* | ,07\*\* | ,09\*\* | ,10\*\* | 1 |  |
| 13. SES | -0,05 | -0,01 | -0,02 | 0,04 | -,05\* | -,14\*\* | -,05\* | 0,01 | ,12\*\* | -,07\*\* | -0,05 | ,18\*\* | 1 |
| *Mean* | 2,58 | 3,78 | 1,99 | 4,35 | 4,57 | 4,65 | 4,51 | 4,82 | 4,62 | 4,19 | 4,57 | 3,84 | 107,17 |
| *SD* | 0,75 | 0,8 | 0,88 | 0,83 | 0,73 | 0,82 | 0,9 | 1,03 | 0,8 | 0,88 | 0,81 | 1,28 | 37,75 |

**Table 2**: Descriptive statistics and zero-order correlations for the three samples and in total. \*p<.01. \*\*p<.001.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Home-based involvement | | | | Home-school communication | | | | School-based involvement | | | |
|  | Lux. | France | Belgium | Total | Lux. | France | Belgium | Total | Lux. | France | Belgium | Total |
| *Age* |  | \*\*\* |  | \*\* |  |  |  |  |  | \*\*\* |  | \*\*\* |
| 14-year-old students or below | 2,73 | 2,87 | 2,59 | 2,66 | 3,84 | 3,9 | 3,8 | 3,82 | 2,05 | 2,35 | 2,1 | 2,1 |
| 15 or 16-year-old students | 2,7 | 2,38 | 2,58 | 2,58 | 3,81 | 3,77 | 3,76 | 3,78 | 1,97 | 1,81 | 2,08 | 1,96 |
| 17-year-old students or above | 2,6 | 2,29 | 2,55 | 2,5 | 3,76 | 3,62 | 3,82 | 3,74 | 1,91 | 1,77 | 1,94 | 1,88 |
| *Gender* |  |  |  | \* |  |  |  |  |  |  |  |  |
| Girls | 2,76 | 2,47 | 2,6 | 2,62 | 3,82 | 3,75 | 3,76 | 3,78 | 1,97 | 1,88 | 2,06 | 1,99 |
| Boys | 2,63 | 2,36 | 2,55 | 2,54 | 3,78 | 3,75 | 3,81 | 3,78 | 1,98 | 1,92 | 2,04 | 1,99 |
| *Grade retention* | \*\*\* |  |  | \*\*\* |  |  |  |  |  |  |  |  |
| No | 2,58 | 2,39 | 2,57 | 2,52 | 3,79 | 3,76 | 3,79 | 3,78 | 1,96 | 1,94 | 2,05 | 1,99 |
| Yes | 2,81 | 2,51 | 2,58 | 2,71 | 3,8 | 3,68 | 3,78 | 3,78 | 2,01 | 1,71 | 2,07 | 1,99 |
| *Migration background* | \* |  |  | \*\* |  |  |  |  |  |  |  |  |
| Speaking at home the same language than the teaching one | 2,63 | 2,42 | 2,58 | 2,56 | 3,78 | 3,78 | 3,78 | 3,78 | 1,94 | 1,89 | 2,05 | 1,97 |
| Speaking at home another language than the teaching one | 2,79 | 2,39 | 2,52 | 2,69 | 3,83 | 3,54 | 3,85 | 3,79 | 2,07 | 2,1 | 2,11 | 2,08 |
| *Highest educational level* | \* | \* |  | \*\*\* |  | \*\* |  |  |  |  |  | \*\*\* |
| Lower secondary or less | 2,75 | 2,47 | 2,37 | 2,67 | 3,81 | 3,48 | 3,89 | 3,78 | 1,95 | 1,98 | 1,78 | 1,94 |
| Upper secondary school | 2,57 | 2,29 | 2,51 | 2,48 | 3,83 | 3,61 | 3,8 | 3,77 | 1,88 | 1,75 | 1,97 | 1,87 |
| Higher education or university | 2,72 | 2,5 | 2,59 | 2,59 | 3,72 | 3,89 | 3,77 | 3,79 | 2,1 | 1,99 | 2,07 | 2,05 |
| *Academic expectations* |  | \* |  |  | \* | \* |  | \*\* |  |  |  |  |
| Less than higher education or university | 2,67 | 2,28 | 2,55 | 2,56 | 3,72 | 3,58 | 3,74 | 3,7 | 1,94 | 1,76 | 2,05 | 1,93 |
| Higher education or university | 2,67 | 2,47 | 2,57 | 2,58 | 3,86 | 3,83 | 3,79 | 3,82 | 1,96 | 1,96 | 2,05 | 2 |

**Table 3:** Means differences observed for the three parental involvement variables by qualitative variables.

\* p<.05. \*\*p<.01. \*\*\*p<.001.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Home-based involvement | | | | Home-school communication | | | | School-based involvement | | | |
| L | F | B | Total | L | F | B | Total | L | F | B | Total |
| F | 9,23\*\*\* | 5,97\*\*\* | 5,51\*\*\* | 19,52\*\*\* | 8,52\*\*\* | 9,84\*\*\* | 11,92\*\*\* | 26,83\*\*\* | 3,52\*\*\* | 2,97\*\*\* | 2,19\*\* | 6,86\*\*\* |
| Adjusted R2 | 0,21 | 0,21 | 0,12 | 0,18 | 0,20 | 0,32 | 0,25 | 0,24 | 0,08 | 0,10 | 0,04 | 0,07 |
| Variables |  |  |  |  |  |  |  |  |  |  |  |  |
| School climate |  |  |  |  |  |  |  |  |  |  |  |  |
| *Relationships between students* | -0,05 | -0,05 | -0,03 | -0,03 | -0,05 | -0,05 | -0,07 | -0,06 | 0,02 | -0,03 | 0,02 | 0,01 |
| *Relationships between students and teachers* | -0,06 | 0,01 | 0,03 | -0,01 | -0,13 | -0,02 | 0,13\* | 0,00 | 0,12 | 0,01 | 0,06 | 0,06 |
| *Educational values* | 0,02 | -0,04 | -0,05 | -0,04 | 0,00 | -0,01 | 0,04 | 0,00 | -0,06 | 0,08 | 0,05 | 0,03 |
| *Justice* | 0,07 | -0,01 | 0,11 | 0,08\* | 0,09 | -0,09 | -0,08 | -0,01 | 0,04 | 0,00 | -0,02 | 0,01 |
| *Belonging* | -0,06 | 0,06 | -0,04 | -0,02 | 0,00 | 0,01 | -0,03 | -0,01 | 0,07 | 0,07 | 0,02 | 0,04 |
| *Security* | -0,05 | -0,05 | 0,01 | -0,04 | 0,02 | 0,13\* | 0,04 | 0,05\* | -0,07 | -0,23\*\* | -0,08 | -0,12\*\*\* |
| Perceptions of the place given to parents by the school | 0,27\*\*\* | 0,21\*\* | 0,18\*\*\* | 0,22\*\*\* | 0,09 | 0,01 | 0,06 | 0,05 | 0,21\*\* | 0,09 | 0,14\*\* | 0,17\*\*\* |
| Trust towards school | 0,10 | 0,12 | 0,11 | 0,10\* | -0,01 | 0,08 | -0,06 | 0,00 | -0,07 | 0,04 | -0,12 | -0,06 |
| Self-efficacy to supervise homework | 0,25\*\*\* | 0,20\*\*\* | 0,24\*\*\* | 0,24\*\*\* | 0,45\*\*\* | 0,49\*\*\* | 0,53\*\*\* | 0,50\*\*\* | 0,12\*\* | 0,13\* | 0,16\*\*\* | 0,13\*\*\* |
| Age(reference: 14-year-old students or below) |  |  |  |  |  |  |  |  |  |  |  |  |
| *15 or 16-year-old students* | 0,03 | -0,26\*\* | 0,03 | 0,02 | 0,03 | -0,11 | 0,09\* | 0,06\* | -0,01 | -0,24\* | 0,04 | -0,02 |
| *17-year-old students or above* | -0,03 | -0,34\*\* | 0,05 | -0,04 | 0,04 | -0,16 | 0,10\* | 0,05 | -0,02 | -0,28\*\* | -0,06 | -0,07\* |
| Gender (reference: Boys) |  |  |  |  |  |  |  |  |  |  |  |  |
| *Girls* | -0,16\*\*\* | -0,01 | -0,02 | -0,07\*\* | -0,06 | 0,04 | 0,00 | -0,01 | -0,06 | 0,11 | -0,02 | 0,00 |
| Grade retention (reference: No) |  |  |  |  |  |  |  |  |  |  |  |  |
| *Yes* | 0,13\*\* | 0,06 | 0,03 | 0,11\*\*\* | -0,01 | -0,07 | -0,03 | -0,01 | -0,02 | -0,04 | 0,03 | 0,01 |
| SES | -0,11\* | -0,07 | -0,04 | -0,09\*\* | -0,03 | -0,12\* | -0,12\* | -0,10\*\* | -0,12\* | 0,08 | -0,04 | -0,05 |
| Migration background (reference: Speaking at home the same language than the teaching one) |  |  |  |  |  |  |  |  |  |  |  |  |
| *Speaking at home another language than the teaching one* | 0,06 | -0,05 | -0,03 | 0,03 | 0,05 | -0,09 | 0,01 | 0,01 | -0,01 | 0,10 | 0,01 | 0,02 |
| Highest educational level (reference: Lower secondary or less) |  |  |  |  |  |  |  |  |  |  |  |  |
| *Upper secondary school* | -0,08 | -0,03 | 0,10 | -0,09\* | -0,01 | -0,02 | 0,03 | -0,03 | -0,01 | 0,09 | 0,12 | 0,00 |
| *Higher education or university* | 0,03 | 0,13 | 0,15 | 0,01 | -0,11\* | 0,04 | -0,06 | -0,10\* | 0,10 | 0,11 | 0,18 | 0,10\* |
| Academic expectations (reference: Less than higher education or university) |  |  |  |  |  |  |  |  |  |  |  |  |
| *Higher education or university* | 0,04 | 0,09 | -0,02 | 0,04 | 0,11\* | 0,12\* | 0,01 | 0,08\*\* | 0,01 | 0,07 | -0,02 | 0,02 |

**Table 4**: Regression models with β coefficients predicting types of parental involvement. L=Luxembourg. F=France. B=Belgium. \*p < .05 \*\*p < .01. \*\*\*p < .001.

1. For Luxembourg, this is the 2009 school law. For Belgium, it is the Pact for Excellence in Education and for France, it is the law for the refoundation of the school. [↑](#footnote-ref-1)