

# Parental involvement in secondary education in Belgium, France and Luxembourg: Associations with family and school characteristics

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## Funding information

EU programme Erasmus+ KA2 x, Grant/Award Number: 2016-1-LU01-KA201-013826

## Abstract

Although evidence generally suggests that parental involvement is beneficial for the academic success of students, much less is known about the determinants of this involvement. The study examined the associations between parental characteristics, beliefs and two types of parental involvement (school-based and home-based) in secondary education in three countries in Europe. Data from 1757 parents from nineteen public secondary schools in three European countries (six in Luxembourg, six in France and seven in Belgium) were analysed using multiple regression analyses. Models predicted overall significant but relatively low portions of variance in the home- and school-based involvement of parents. Different patterns of results emerged from the three very different samples. When controlling for family background and school environment, parental self-efficacy—associated for example with the role of parents at 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 in relation to school practices involving parents.

## KEYWORDS

adolescence, Belgium, France, home-based parental involvement, Luxembourg, parental beliefs, regression analysis, school-based parental involvement, school-family relationship, secondary school

## 1 | INTRODUCTION

There is currently a consensus in scientific literature, that parental involvement is an efficient part of education; it is welcomed by all actors involved in education as a support and positive influence (Castro et al., 2015; Erdem & Kaya, 2020). Several models have been developed by authors, both to better understand the concept of parental involvement and to grasp its multidimensional complexity (Eccles & Harold, 1996; Epstein, 2013).

It is 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. Parents' educational aspirations or discussions about the school day are part of this. In total, it includes all the formal and informal family activities related to school learning. These include the direct investments made by parents in the school education of their child. An example of this is help with homework. Several school activities relate to parental involvement, for example, attending a parent-teacher meeting, participating in a school event or volunteering at school.

While it is important to better understand the concept, the main question, however, remains: *why do parents decide to get involved in their child's school education?* Hoover-Dempsey and Sandler (1997) and Hoover-Dempsey et al. (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 invitations from teachers and child); and (3) the perceived life context of parents (i.e., skills, knowledge, time and energy that may conflict with involvement). Further, research has provided empirical support for the direct association between several family and child characteristics, and parental involvement (Camacho-Thompson et al., 2016; Wang et al., 2016).

In this article, we examine parental involvement during secondary education in three different samples from Luxembourg, France and Belgium. We examine exogenous characteristics of parents and students, as well as parental perceptions, beliefs and academic expectations. Our study has focused on analysing the extent to which these characteristics are associated with types and levels of parental involvement at home and at school. The next section elaborates on these determinants of parental involvement.

## 2 | CORE DETERMINANTS OF PARENTAL INVOLVEMENT

### 2.1 | Student characteristics

School level is a significant moderator of the association between parental involvement and student academic performance, with much more parental involvement at the levels of preschool and elementary school than at secondary school (Green et al., 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 (OECD, 2018). Similarly, student gender also influences parenting styles and their involvement in education (Guo et al., 2018).

### 2.2 | 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 et al., 2008). However, the relation between the socio-economic status of parents and involvement in secondary schools is still unclear. For 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 et al., 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 SES 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 et al., 2018).

### 2.3 | Parental perception of school climate

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

Goldkind and Farmer (2013) highlight the positive influence of school climate on parents' perceptions regarding opportunities for involvement offered by schools. 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-Racah et al. (2018) and Barr and Saltmarsh (2014) suggested that school principals can play a decisive role in the connection with parents. Consequently, principals can reinforce the opportunities of involvement for parents. The more the parents see the school as an open structure that is bringing school and families closer, the more parents are likely to get involved in their child's schooling—parents perceive they have a role in education. Along the same lines, Whitaker and Hoover-Dempsey (2013) pointed out that school climate in middle school is the most predictive factor for beliefs about the role of parents in education.

### 2.4 | Parental self-efficacy

According to Hoover-Dempsey and Sandler (1997) and 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 Social Cognitive Theory (Bandura, 1989) which proposes that persons confident in their abilities to solve a specific task are more willing to commit to it than those negatively assesses their chances to succeed. Thus, efficacy theory offers specific suggestions for understanding parental behaviour 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 is on elementary and preschool contexts.

### 2.5 | 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 et al., 2011).

Several studies tested the association between trust towards school and parental involvement. All of them (Hourri et al., 2019; Strier & Katz, 2016) showed that there is a trust component in parental behavioural 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.

### 3 | THE PRESENT STUDY

Most studies on 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 countries in Europe; specifically, Belgium, France and Luxembourg. Parental characteristics were charted by SES; language background; highest level of education; beliefs and expectations pertaining to perception of school climate; perception of the role of parents in the school; self-efficacy to supervise homework; trust towards school; and academic expectations. Characteristics of students were documented by age, gender and retention. Parental beliefs and expectations were used to predict the self-reported home-based and school-based involvement of parents.

#### 3.1 | Materials and methods

##### 3.1.1 | Research questions

The review of the literature has led us to articulate 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?

##### 3.1.2 | Participants and procedure

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

Data from an ERASMUS+ research project in Europe were used in the present study.<sup>1</sup> The 4,067 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 voluntary. A total of 1757 parents of grade 7 to grade 12 students enrolled in nineteen public secondary schools (six in Luxembourg, six in France, and seven 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's *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.

As reported in Table 1, the three samples are quite different. For Luxembourg, it should be noted that the sample comprises students attending secondary vocational school. It explains why the proportion of students characterised by grade retention and by minority language adherence background are particularly high. Luxembourg is known to be one of the countries in Europe with the highest standards of life on average. However, the mean social position index for the Luxembourgish sample was the lowest of the three samples

TABLE 1 Description of the three samples.

	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 another language than the schooling language at home	29.0	10.5	8.3	16.9
Age				
% of 14-year-old or younger students	24.3	12.0	43.0	28.8
% of 15 to 16-year-old students	39.6	44.0	30.7	37.1
% of 17-year-old or older students	36.1	44.0	26.3	34.1
Highest level of education by % of families				
Lower secondary or less	33.5	8.3	5.0	17.1
Upper secondary school	42.0	35.7	22.1	32.5
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)

Source: Authors.

in the present study. For France, the sample of younger students is underrepresented as there were only two colleges participating in the study. The sample for Belgium sample had the highest proportion of young students (43%) who were 14-years or younger. The sample was also characterised by the highest proportion of privileged students scoring high means in a social position index. The sample from Belgium also had a high percentage of families with advanced levels of education. These large differences between the samples provide an opportunity to test our hypotheses in three specific contexts which nevertheless are not representative of their respective student populations.

### 3.1.3 | Measures

#### 3.1.3.1 | Parental involvement in school education

The *Family Involvement Questionnaire-High School* (FIQ-HS; Grover et al., 2016) uses a 25-item scale, it was used to collect data about the nature and level of parental participation in teenager school and academic work. Parents were asked to respond on 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 questionnaire targeted three distinct factors: home-based involvement, home-school communication, and school-based involvement. *Home-based involvement* (nine 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 a teenager about careers they are interested in). *Home-school communication* (eleven 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* (five 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.

#### 3.1.3.2 | Characteristics of students

Information was collected on the age (14-years or younger, 15 to 16-year-olds, 17-years or older) of students. The gender (boy or girl) and grade retention status (with or without grade retention) was also documented.

### 3.1.3.3 | *Socioeconomic status*

We used the social position index developed by Le Donné and Rocher (2010). The index accounts for 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, based on the parents' profession—weighted by considering the effect of professions and social situations on school success (Rocher, 2016). The index was constructed and validated based on a survey of 29,544 French secondary school students conducted in 2008. This survey identified family variables that have a positive and significant influence on students' academic success. These variables include 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, theatre, 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 standardise an average social position index per student that was no longer based exclusively on the parents' profession. This index of social position for students is indicated on a scale from 38 to 179. The larger the numerical value in this index is, the more favourable the student family context is for academic success.

### 3.1.3.4 | *Language 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.

### 3.1.3.5 | *Highest parental educational level*

This dimension corresponds to the highest degree that one of the parents have obtained. The variable was binary (bachelor/master degree or a lower level of education).

### 3.1.3.6 | *School climate sub-dimensions*

The school climate refers to all social relationships, values, attitudes, and feelings shared by people in the school community (including management, teachers, students, and parents). In order to limit the length of the questionnaire, only 22 items from the Socioeducative Environment Questionnaire (Janosz & Bouthillier, 2007) were selected to assess six sub-dimensions of the school climate. The selected items pertained to parental perceptions of: (1) relationships between students (three items, Cronbach's alpha of .86); (2) relationships between students and teachers (seven items, Cronbach's alpha of .90); (3) the school's education climate (four items, Cronbach's alpha of .83); (4) a climate of justice (three items, Cronbach's alpha of .85); (5) a climate of belonging (three items, Cronbach's alpha of .93); and (6) a climate of security (five items, Cronbach's alpha of .69). A mean indicator was calculated for each sub-dimension.

### 3.1.3.7 | *Parental perceptions of the role of parents at school*

The role, or importance, given to parents at school reflects how open schools are to parental participation (Janosz & Bouthillier, 2007). Six items were used with a Cronbach's alpha of .83; for example, items included the statements "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.

### 3.1.3.8 | *Parental trust towards the school*

Parental trust in school was measured using the Forsyth et al. scale (2011). The ten items used included statements such as "My child's school is doing what it is supposed to do" and "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.

#### 3.1.3.9 | Parental self-efficacy to supervise homework

Parental self-efficacy to supervise homework was measured using a single item. Parents were asked to say if they felt competent to help their child with school homework.

#### 3.1.3.10 | Parents' academic expectations

Parents' academic expectations for their child were measured using a single item. Parents were asked to say if they want their child to obtain at least a bachelor's or master's degree.

## 4 | RESULTS

### 4.1 | Descriptive statistics, correlations and means differences

Descriptive statistics and correlations between all quantitative variables are given in [Table 2](#). Differences in means observed for the three parental involvement variables with qualitative variables are given in [Table 3](#).

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.

### 4.2 | Predictors of parental involvement

Multiple stepwise regressions were conducted to predict each of the three types of parental involvement. Two blocks of variables were used for this: (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) students' characteristics and background family variables. [Table 4](#) summarises the results of the final regression models.

### 4.3 | Results by model

#### 4.3.1 | Home-based involvement

The model constructs account for a significant but relatively low portion of the variance of home-based involvement: 21% for the samples from Luxembourg and France, 12% for the sample from Belgium and 18% for the total sample. Specifically, home-based involvement is significantly and positively associated with parental self-efficacy to supervise homework (Luxembourg,  $\beta=0.25$ ,  $p<.001$ ; France,  $\beta=0.20$ ,  $p<.001$ ; Belgium,  $\beta=0.24$ ,  $p<.001$ ; total,  $\beta=0.24$ ,  $p<.001$ ) and parental perceptions of the role given to parents at the school (Luxembourg,  $\beta=0.27$ ,  $p<.001$ ; France,  $\beta=0.21$ ,  $p<.01$ ; Belgium,  $\beta=0.18$ ,  $p<.001$ ; total,  $\beta=0.22$ ,  $p<.001$ ). When all other variables are kept constant, age is a statistically significant predictor of home-based involvement only in the sample from France—where the parental involvement level decreases with age. Compared to students 14-years or younger, home-based involvement is lower among 15 or 16-year-old students ( $\beta=-0.26$ ,  $p<.001$ ), and students that were 17-years or older ( $\beta=-0.34$ ,  $p<.001$ ). In the sample from Luxembourg, home-based involvement overall is lower among girls ( $\beta=-0.16$ ,  $p<.001$ ), higher for students with grade retention ( $\beta=0.13$ ,  $p<.01$ ), and lower in families with higher SES ( $\beta=-0.11$ ,  $p<.05$ ). Sub-dimensions of school climate,





TABLE 2 (Continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13
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	-0.20**	-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										

(Continues)



TABLE 2 (Continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13
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**	.09**	.09**	.10**	1	
13. SES	-0.05	-0.01	-0.02	0.04	-0.05*	-0.14**	-0.05*	0.01	.12**	-0.07**	-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

Note: Descriptive statistics and zero-order correlations overall and for the three samples.

Source: Authors.

\* $p < .01$ ; \*\* $p < .001$ .

TABLE 3 Means differences observed for the three parental involvement variables by qualitative variables.

	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
Language spoken at home												
Language spoken at home same as schooling language	2.63	2.42	2.58	2.56	3.78	3.78	3.78	3.78	1.94	1.89	2.05	1.97
Language spoken at home different from schooling language	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

Source: Authors.

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

TABLE 4 Regression models with  $\beta$  coefficients predicting types of parental involvement.

	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 R <sup>2</sup>	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	.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	.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	.13*	0.04	.05*	-0.07	-.23**	-0.08	-.12***
Perceptions of the place given to parents by the school	.27***	.21**	.18***	.22***	0.09	0.01	0.06	0.05	.21**	0.09	.14**	.17***
Trust towards school	0.10	0.12	0.11	.10*	-0.01	0.08	-0.06	0.00	-0.07	0.04	-0.12	-0.06
Self-efficacy to supervise homework	.25***	.20***	.24***	.24***	.45***	.49***	.53***	.50***	.12**	.13*	.16***	.13***
Age (reference: 14-year-old students or younger)												
15 to 16-year-old students	0.03	-.26**	0.03	0.02	0.03	-0.11	.09*	.06*	-0.01	-.24*	0.04	-0.02
17-year-old or older students	-0.03	-.34**	0.05	-0.04	0.04	-0.16	.10*	0.05	-0.02	-.28**	-0.06	-.07*

(Continues)

TABLE 4 (Continued)

	Home-based involvement			Home-school communication			School-based involvement					
	L	F	B	Total	L	F	B	Total	L	F	B	Total
Gender (reference: Boys)												
Girls	-.16***	-0.01	-0.02	-.07***	-0.06	0.04	0.00	-0.01	-0.06	0.11	-0.02	0.00
Grade retention (reference: No)												
Yes	.13**	0.06	0.03	.11***	-0.01	-0.07	-0.03	-0.01	-0.02	-0.04	0.03	0.01
SES	-.11*	-0.07	-0.04	-.09**	-0.03	-.12*	-.12*	-.10**	-.12*	0.08	-0.04	-0.05
Language spoken at home (reference: Speaking at home the same language as used in schooling)												
Speaking at home another language than the language used in schooling	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	-.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	-.11*	0.04	-0.06	-.10*	0.10	0.11	0.18	.10*
Academic expectations (reference: Less than higher education or university)												
Higher education or university	0.04	0.09	-0.02	0.04	.11*	.12*	0.01	.08**	0.01	0.07	-0.02	0.02

Abbreviations: B, Belgium; F, France; L, Luxembourg.

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

trust towards school, language spoken at home, parents' education level and academic expectations are not associated with home-based involvement.

### 4.3.2 | 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 sample from Luxembourg, 32% for the sample from France, 25% for the sample from Belgium and 24% for the total sample. When controlling for all other variables, home-school communication is almost exclusively associated with parental self-efficacy to supervise homework (Luxembourg,  $\beta=0.45$ ,  $p<.001$ ; France,  $\beta=0.49$ ,  $p<.01$ ; Belgium,  $\beta=0.53$ ,  $p<.001$ ; total,  $\beta=0.50$ ,  $p<.001$ ). 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. In the sample from Luxembourg, home-school communication was overall less frequent in families with higher education or university education level ( $\beta=-0.11$ ,  $p<.05$ ) and more frequent among parents who have the highest academic expectations for their child ( $\beta=0.11$ ,  $p<.05$ ). In the sample from France, home-school communication is overall more frequent among parents who have the highest academic expectations for their child ( $\beta=0.12$ ,  $p<.05$ ) and for parents who perceive the school climate as secure ( $\beta=0.13$ ,  $p<.05$ ). Home-school communication is less frequent in low-SES families in France ( $\beta=-0.12$ ,  $p<.05$ ). In the sample from Belgium, home-school communication is overall more frequent among older students ( $\beta=0.09$ ,  $p<.05$ , and  $\beta=0.10$ ,  $p<.05$ ) compared to 14-year-old or younger students. It was also more frequent when parents considered student-teacher relationships positively ( $\beta=0.13$ ,  $p<.05$ ), and less frequent in low-SES families ( $\beta=-0.12$ ,  $p<.05$ ).

### 4.3.3 | 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 sample from Luxembourg, 10% for the sample from France, 4% for the sample from Belgium and 7% for the total sample. When controlling for all other variables, school-based involvement is slightly associated with parental self-efficacy to supervise homework (Luxembourg,  $\beta=0.12$ ,  $p<.01$ ; France,  $\beta=0.13$ ,  $p<.05$ ; Belgium,  $\beta=0.16$ ,  $p<.001$ ; total,  $\beta=0.13$ ,  $p<.001$ ). The perception of the role of parents at the school is positively associated with parents' school-based involvement in two samples (Luxembourg,  $\beta=0.21$ ,  $p<.01$ ; Belgium,  $\beta=0.14$ ,  $p<.01$ ; total sample,  $\beta=0.17$ ,  $p<.001$ ). In the sample from Luxembourg, parental participation in school activities is slightly negatively associated with parents' SES ( $\beta=-0.12$ ,  $p<.05$ ). In the sample from France, parental participation in school activities decreases with older students ( $\beta=-0.24$ ,  $p<.05$ , and  $\beta=-0.28$ ,  $p<.01$ ) compared to 14-year-old students or younger. Moreover, a statistically negative association is observed between school-based involvement and parents' perception of the school climate concerning security ( $\beta=-0.23$ ,  $p<.01$ ). This suggests that parents who do not consider the school climate safe enough are also those with the highest school-based involvement.

## 5 | DISCUSSION

The study on which this article reports investigated types and level of parental involvement during secondary school in three countries in Europe. This is a relevant contribution as most studies in this field have been conducted in the United States during preschool and elementary education. We examined to what extent the self-reported participation of parents from Luxembourg, France and Belgium in home-based involvement, school-based

involvement and home-school communication are associated with parents characteristics, student characteristics and parental beliefs and expectations.

Belgium, France and Luxembourg are unequal school systems. For this reason, education reforms have been implemented to improve the quality as well as the equity of the school system in these three countries.<sup>2</sup> The three countries try to ensure that all parents are truly involved in the education projects of education institutions, and that 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, where parents were less involved in families with a high SES (both at home and at school). These results are consistent with other qualitative studies (Ule et al., 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 decreased for older students. We propose that sample characteristics may explain the observed differences between countries. The French sample is under-represented in terms of young people—there are only two secondary schools in the sample, which may explain why the results of this sample are more sensitive to the age of students. The sample from Luxembourg is characterised by the lowest SES and the highest repetition rate. This can be explained by the fact that this sample includes significantly more students from vocational streams than the other two samples. This can explain why the results for Luxembourg regarding SES are different. 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.

1. The mean levels of parental home-based and school-based involvement are relatively low, except for home-school communication.
2. Home-based and school-based involvement seem to be strengthened when parental involvement is by parents understood as welcomed 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 in their child's schooling at home and at school.
3. 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 et al., 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).
4. The associations with almost all sub-dimensions of school climate and trust towards schools were not statistically significant, contrary to our expectations.
5. The regression models showed only few and slight significant associations between types and levels of parental involvement and individual characteristics of parents and students. Consistent with the results of Ho and Willms (1996), this reinforces the idea that what parents do prevails over socio-cultural backgrounds. This contradicts research results demonstrating 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 of 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 homes



and education institutions is officially supported. Moreover, the analysed documents explicitly state that special attention must be paid to parents who are the most distant from the school system. We hypothesise that our results may demonstrate the consequences of the implementation of these specific actions for the most disadvantaged families in the three countries under study.

6. 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 student 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.

## 6 | IMPLICATIONS

### 6.1 | Implications for schools and policy

This study highlights a helpful message in the field of parental involvement: it is possible to enhance parental involvement in the schooling of teenagers. The set of exogenous variables analysed does not predict parenting behaviours to a large extent. These results align 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. This is because 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 suggests in line with other studies (Addi-Raccah et al., 2018; Barr & Saltmarsh, 2014), that the starting point for 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 (Hornby & Blackwell, 2018; Menheere & Hooge, 2010). Thus, given this starting assumption, it would be important to include invitations to participate from the school, the teacher, or even the students themselves, that initiate communication between education professionals and parents (Hoover-Dempsey et al., 2005). Training school staff for this is necessary. 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 to know how to develop effective plans to improve parental involvement. There should also be training aimed at modelling teachers' attitudes concerning families and the role of parents in education. To this end, pre-service and in-service training programmes should include the issue of parental involvement in their curriculum and should consider reinforcing it in a more explicit and operational way.

On the other hand, our study reaches the conclusion that self-efficacy plays an important role for parental involvement. This aligns with key findings from contemporary research (Deslandes & Bertrand, 2004; Giallo et al., 2013; Green et al., 2007; Waanders et al., 2007). Furthermore, 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 home-school communication. In this regard, some elements appear to be correlated with parental lack of self-confidence in ability to contribute to schooling (Hornby & Blackwell, 2018; Hornby & Lafaele, 2011; Williams & Sánchez, 2013). Accordingly, options to enhance parental self-efficacy should be considered.

First, parents who are not fully fluent in the language used for instruction at schools may not feel comfortable interacting with their child's teacher. This means in practice, that it could be important to ensure that all family

engagement opportunities are culturally and linguistically responsive. Schools should be made linguistically accessible. Also, efforts should be made to work against cultural biases. The intercultural mediators practice that is in use in Luxembourg is worthwhile to note for this purpose. The intercultural mediators are used in Luxembourg for facilitating communication and mutual understanding between all actors.

Second, 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 are at a disadvantage for engaging in parental involvement. Similarly, previous negative experiences with teachers or schools may also reduce parental confidence in supporting their child academically. Nevertheless, whatever the reason, some research (Addi-Racah et al., 2018; Barr & Saltmarsh, 2014) shows that parents feel their knowledge and awareness are enhanced when the school supports their involvement. Thus, teachers should support parental involvement, guiding them and making them aware of the multiple ways they can help their children. In this regard, there is a dimension of home-based involvement that pertains to *academic socialisation* (Benner et al., 2016). This refers to practices such as discussing schooling, the future, and any other school-related matter with adolescents. This type of parental involvement is highly influential for student 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 et al., 2007; Hill & Tyson, 2009). For this reason, we propose it is particularly important to guide parents to engage in this kind of involvement, as it is 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 is about 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, which necessitates the inclusion of a responsible for school-family relationships in each school—who is accorded resources for scheduling hours that are dedicated to this task. Accordingly, education policies should consider the possibility of supporting the assignment of this type of coordinators at schools, which is just a tangible expression of the need to recognise in an explicit manner the family-school relationship.

## 6.2 | Implications for researchers

Traditionally, researchers have identified and studied different components of parental involvement, tending to operationalise it into two fields consistently supported by extant theories and assessments (Camacho-Thompson et al., 2016; Wang et al., 2016); namely, *home-based involvement* and *school-based involvement*. However, the activities endorsed in school-based involvement do not seek a common objective. Family-school communication aims at improving the education of the student. In contrast, activities such as volunteering or participating in school decision-making organisations aim at improving the functioning of the education community.

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. This means that the factors influencing parental decisions to become involved in the communicative interactions with teachers are different from the reasons that lead parents to participate in other types of activities within the school. These results are consistent with previous studies (Manz et al., 2004; Waanders et al., 2007) arguing the importance of accounting for parent-teacher communication as an independent dimension of parental involvement in primary and secondary education. In sum, this study adds to the multidimensional concept of parental involvement by suggesting that it encompasses three different

dimensions for analysing secondary education: (1) home-school communication, (2) home-based involvement and (3) school-based involvement.

## 7 | LIMITATIONS

There are limitations to the study on which this article reports. First, the transversal nature of the data does not allow for causal inferences. Further studies should use longitudinal research designs to avoid this limitation. Second, data were obtained from specific samples of students in the three countries. Findings are not generalisable as representative of all students in each of the three countries. The third limitation is that the indicator of parental self-efficacy was measured using a single item. Further studies should use several items to assess this crucial dimension of parental involvement. There are relevant recent studies that have developed self-completion questionnaires about parental self-efficacy (Matthews et al., 2022; McDougall & Scott, 2021). Matthews and colleagues derived and validated a shorter version of the longer self-report *Me as a Parent* scale (MaaPs; Matthews et al., 2022). Four dimensions of self-regulation in parenting are included in the scale: self-efficacy, personal agency, self-management and self-sufficiency. McDougall and Scott (2021) developed an instrument for measuring the self-efficacy of parents to adolescents, the *Self-Efficacy for Parenting Adolescents Scale* (SEPA). It is a promising instrument that could in further studies be used for assessing parental self-efficacy for parenting adolescents from ages 12 to 18.

## ACKNOWLEDGEMENTS

The research conducted in this study received funding from the EU programme Erasmus+ KA2 x. The reference number for the funding is 2016-1-LU01-KA201-013826.

## DATA AVAILABILITY STATEMENT

Research data are not shared.

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## ENDNOTES

<sup>1</sup> Erasmus+ KA2 Strategic Partnership Projects, *Favoriser l'accrochage scolaire* (FAVAS). Convention number: 2016-1-LU01-KA201-013826.

<sup>2</sup> For Luxembourg, see the 2009 school law (Government of Luxembourg, 2009). For Belgium, see the 2017 pact for excellence in education (Fédération Wallonie Bruxelles, 2017); and for France, see the school reform law of 2013 (Government of France, 2013).

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**How to cite this article:** Poncelet, D., Bordalba, M. M., & Dierendonck, C. (2023). Parental involvement in secondary education in Belgium, France and Luxembourg: Associations with family and school characteristics. *European Journal of Education*, 58, 719–740. <https://doi.org/10.1111/ejed.12590>