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THE CONTEXT OF THE FAMILY INVOLVEMENT PROCESS: EMPIRICAL BASES FOR THE DESIGN OF AN INTERVENTION PROGRAM

EL ENTORNO DEL PROCESO DE IMPLICACIÓN FAMILIAR: BASES EMPÍRICAS PARA EL DISEÑO DE UN PROGRAMA DE INTERVENCIÓN[1]

O MEIO AMBIENTE DO PROCESSO DE ENVOLVIMENTO DA FAMÍLIA: BASES EMPÍRICAS PARA A CONCEPÇÃO DE UM PROGRAMA DE INTERVENÇÃO

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ABSTRACT: Based on the approach developed by Hoover-Dempsey and Sandler (1995), and focusing on the homework strategy (Epstein, 2009), we are able to observe the effect of the family involvement on the students' motivation in the context of self-regulate learning (Yotyodying, 2012). With a sample of 60 Primary Education teachers, 630 students enrolled in 5th and 6th Primary Education, and using a cross-sectional approach, we have observed the teacher's influence in the decision that families make to get involved, the students' perception of the styles of involvement and the relationship of these styles with the students' motivation. Our conclusion is there is a remarkable influence of a style based on support (requested by the students) and the promotion of autonomy, in the context of regulation of the academic motivation.

PALABRAS CLAVE:
implicación familiar
motivación académica
estilos de implicación
prácticas del profesorado
regulación de la motivación

RESUMEN: Tomando como base el modelo de Hoover-Dempsey y Sandler (1995) y centrándose en la estrategia de *Homework* (Epstein, 2009), es posible observar los efectos de la implicación familiar sobre la motivación del estudiante en el contexto del aprendizaje auto-regulado (Yotyodying, 2012). Con una muestra de 60 profesores de Educación Primaria, 630 familias, 630 estudiantes de 5º y 6º de Primaria, y un planteamiento transversal, se observa la influencia del profesorado en la decisión que toman las familias para implicarse, la percepción del estudiante de los estilos de implicación y la relación de estos estilos con la motivación del estudiante. Se concluye la notable influencia de un estilo basado en el apoyo (a demanda del estudiante) y el fomento de la autonomía, en la regulación de la motivación académica.

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PALAVRAS-CHAVE:
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regulação da motivação

RESUMO: Tomando como base o modelo de Hoover-Dempsev y Sandler (1995) e centrando-se na estratégia de Homework (Epstein, 2009) é possível observar os efeitos da participação familiar sobre a motivação do aluno no contexto de aprendizagem autorregulado (Yotyodying, 2012). Com uma amostra de 60 professores de educação primaria, 630 famílias, 630 estudantes de 5º e 6º do ensino primário, e numa abordagem transversal observamos a influência dos professores na decisão que tomam as famílias para participar, a percepção dos modelos de implicação pelos alunos e a relação destes modelos com a motivação dos alunos. Podemos concluir a notável influência de um modelo baseado no apoio (a procura dos alunos) e o estímulo da autonomia, no controle da motivação acadêmica.

1. Introduction

The topic of educational performance is a classic in Social Science research, but the general public seems to have discovered this based on certain international studies meant to evaluate key competences, such as the PISA report, promoted by the OECD.

When speaking about performance, everyone's gaze (research, public policies, consultants etc.) is fixed on Compulsory Secondary Education and, more specifically on grades 1 and 2. Nevertheless, one agrees with Fernández Enguita, Mena and Riviere's (2010) claim that the first indicators of failure begin to manifest themselves in Primary Education. The parents are also largely voicing this idea, complaining that the family-school working programs are coming in too late in Secondary Education (see Santos Rego and Lorenzo, 2015).

It is certain that the picture of the current situation in Spain – in the light of the data – is not particularly encouraging as far as the first years of education are concerned. For example: in the 2015-16 school year, 4.3% of the students in the 2nd grade of Primary Education were retained, a percentage which went down to 2.1% in fifth grade and went back up in the last one (3.6%). Moreover, 94% of the students aged 8 are enrolled in the 3rd grade of Primary, a grade theoretically corresponding to said age and for the 10 year-olds, the percentage of those enrolled in the 5th grade of this stage is of 90.3 % (see INEE, 2018).

Justifiably, researchers have tried to unravel the factors which influence the academic performance of students at the compulsory levels of education (see Núñez, Vallejo, Rosário, Tuero, & Valle, 2014; Santos Rego, Godás, & Lorenzo, 2012), with the aim of providing a basis for the elaboration and/or modification of the policies or practices likely to improve the academic achievements of all students, regardless of variables such as the ethno-cultural origin or the type of school.

The present-day analysis of factors which influence, or correlate with, the academic performance of students rests on very solid theoretical and empirical bases, resulting from the efforts of educational research. The aspects to which more attention was – and is – given, refer to the process, i.e. to the study of the ways of functioning of thought or to the indicators of learning efficiency. Winne and Nesbit, in a compilation titled "The Psychology of Academic Achievement" published in the Annual Review of Psychology in 2010, determined that the factors involved in these two aspects (thinking and learning) may be classified in four groups: cognitive, meta-cognitive, contextual and motivational, all focused on the student.

The cognitive elements refer to the neuro-cognitive workload required by a certain learning activity, paying particular attention to the working memory (Anderson, Hattie, & Hamilton, 2005). In order to understand the repercussions of this line of work, a list (synthesizing the results of cutting-edge research) of 25 principles or heuristics was prepared, with a strong empirical backing, indicating thus the best way to achieve an adequate learning (see http://psy.memphis.edu/learning/whateknow/index.shtml)..

The meta-cognitive factors, whose influence is explained in Hacker, Dunlosky and Graesser's (2009) work, *Handbook of Metacognition in Education* refer to the mechanisms which allow the learner to collect, produce and evaluate information, while at the same time giving him/her the possibility to control and regulate his/her own intellectual functioning. The studies, despite the lack of a complex model of meta-cognition, allow us to state that one is not dealing with "cold" processes, but with ones which interact with variables such as the attributions, the orientations towards a certain target, the epistemological beliefs and the self-efficiency. All of them make up what is usually labeled as "motivating factors" (see Covington, 2000; Fawcett and Garton, 2005; Gutiérrez-Domenech, 2009; Zhang, 2011).

On the other hand, the factors related to the social context encompass four big areas of research: the learning based upon cooperative and collaborative strategies, the specific features of the class, homework and the socio-economic status of the family. Each of these represents a very dense research field which helps explain its impact on academic results. One also has to include among those factors the educational policies, the

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evaluation systems of said policies, the resources received by the schools and their teaching projects.

It is precisely here that our research is situated. Its aim is to analyze the role of the families in the children's educational outcomes, including in the scope of our study the analysis of the origin of the decision to get involved, the ways in which families do it, the processes inherent to this commitment, along with the attenuating and mediating variables. All this will make it possible to plan the intervention mechanisms needed for the optimization of this process (Godás, 2015). In any case, family involvement in education affects the variables which research links to improving school performance (Santos Rego, Ferraces, Godás, & Lorenzo, 2018).

According to Hoover-Dempsey and Sandler (1995), the process of family involvement starts at a level in which the variables determining the families' decision to get involved in the study of their children are established; for this reason, they construct their role imagining, planning and taking responsibilities, together with their children, in carrying out activities likely to improve their educational achievements. This stage, necessary, but not sufficient, must correspond with a sense of personal efficiency in helping, stemming from the direct experience of other activities associated with involvement, with persuading other persons, or with vicarious experiences of previous success. By the same token, the requests or invitations of the children or of the school (through verbal persuasion or through the perception of the necessity of help) can also influence this decision.

The decision is followed by the choice of the level or forms of involvement. Using this model, one has recourse to the typology formulated by Epstein (2009): parenting (understanding child/teenager development and generating supporting environments for the student in the home), communication (designing and implementing effective communication between school and family), volunteer work (organizing help in the school, at home or in other contexts, in order to support students' activities); learning at home (training in matters of homework help and in curricular matters); making decisions (including families in school decisions by increasing their representation in associations, councils etc.) and collaboration with the community (identifying and integrating resources and services, community help).

Influencing this decision is the parents' perception of their own abilities and knowledge in regard to the school tasks their children have to perform, but also of the time and energy required in order to achieve such purpose.

Lastly, we establish the way in which the student perceives his/her family's actions in terms of control, communication of expectations, family's interest for the school, their support and fostering of his/her autonomy. In addition, we postulate the effects of the interaction between the students and the families on the student's motivation, taking as a basis the self-determination theory, dominant trend of intrinsic motivation, formulated by Ryan and Deci (2000, 2017) within the context of school homework (Epstein, 2009; Rodríguez, Núñez, Valle, Freire, Ferradás, & Rodríguez-Llorente, 2019).

This perspective explains how intrinsic motivation feeds the direction, the intensity and the persistence of the behavior (Cerasoli, Nicklin, & Ford, 2014). When the individuals find that a task is pleasant or identifiable with oneself, it is more probable that they will support and fully participate in its execution (Patall, Cooper, & Robinson, 2008). The intrinsically motivated students are more actively involved in the learning process, whilst those more extrinsically motivated, become increasingly passive. In this regard, Cerasoli, Nicklin and Ford (2014) recall the fact that, while it is beneficial to help people find intrinsically gratifying tasks, the extrinsic incentives can also play an important role.

Second, those who face an intrinsically motivating task will use a greater degree of intensity or effort to carry it out. Finally, intrinsic motivation levels must also be linked to performance through their impact on persistence. When individuals find a task pleasant or interesting, they spend more time performing such task, beyond the point at which they are rewarded.

The application of the self-determination theory to the field of education concerns the student's interest for learning, as well as the value of education and the development of his/her own competences (Deci, Vallerland, Pelletier, & Ryan, 1991). The parents' support as agents of socialization in school activities and their care for the students' homework may be considered an identifier of the quality of involvement (Yotyodying, 2012). This aspect is usually characterized by four dimensions, pertaining to the student's perception of the parents' actions (support, promotion of autonomy, control and communication of expectations) which, from a theoretical point of view, help satisfy the needs for autonomy, sociability and competence. Meeting these needs leads to an increase in self-motivation and well-being, whilst their frustration reduces both aspects.

The motivational processes included in the present study refer to the expression of positive or negative academic emotions and the regulation

thereof (self-reinforcement and self-affirmation), negative academic emotions and the regulation thereof (control of the situation, positive self-instruction and search for social support), motivation of controlled learning in study and tasks (introjected regulation analyzed as a type of extrinsic motivation, in which the behaviors are implemented in order to avoid guilt or anxiety or in order to obtain reinforcements such as pride), the identified regulation (which is yet another form of extrinsic motivation, a more autonomous one, in which the action is identified as one's own, being personally important), the external regulation (in which the behaviors are implemented in order to satisfy an external demand) and, finally, the motivation of autonomous learning (also regulated through identification).

Upon these theoretical bases, a research is devised, with the aim of exploring the connection between all the variables making up the process: the family's decision to get involved, the student's perception of the parents' actions of involvement and the repercussion of this perception on his/her motivation to study (focused on homework and exam preparation at home). Our aim was to obtain an empirical basis which would allow us to design, implement and evaluate a program meant to optimize the families' actions as they get involved in their children's studies and education.

In this respect, the programs aimed at stimulating the families' participation in their children's education are one of the areas where most efforts were deployed (see Allen, 2005; Epstein, 2009; Grolnick & Slowiaczek, 1994; Hill et al., 2004; Hoover-Dempsey & Sandler, 1995, 2005; Lorenzo, Godás, Priegue, & Santos Rego, 2009; Nermeen, Heather, & Votruba-Drzal, 2010; Sektnan, McClelland, Acock, & Morrison, 2008; Torío, Peña, & Hernández, 2012). Let us cite as an example the reports presented by Desforges and Abouchaar (2003) and Halgunseth and Petersen (2009). These two works can be used as basic references to get to understand, from an applied perspective, how one should plan the most appropriate strategies in order to attain the proposed objective which, in our case, is precisely to study the families' involvement in the school and in the homework, both considered as being the most effective strategies in Primary Education. This is confirmed, among others, by Hill and Tyson (2009) as they performed a meta-analysis of the strategies which promoted the academic achievement of students. On the same vein, Epstein (2009) suggested an active team for partnership as a working group (families and teachers) whose purpose would be to achieve an effective climate in the school, seeking the success of all students.

2. Methodology

2.1. Design

In this study, we used a random group design with only one post-test measure in which the data was collected in a cross-sectional fashion in 12 primary schools in which the teachers, the students and the families of the latter participated. The main selection criterion was that the students belong to the 5th and 6th grades of primary school.

2.2. Participants

There were 60 participating teachers, teaching 4th grade of Primary education (6.3%), 5th (29.8%), 6th (38.6%), 4th and 5th (0.3%), 5th and 6th (8.6%) and 4th, 5th, and 6th (16.4%). Their teaching experience varies between less than 5 years (10.3%), between 5 and 15 years (29.8%), between 16 and 30 years (30.4%) and more than 30 years (29.5%). The seniority in the present school is between 5 and 15 years (50.4%), although there are important numbers of those who have been working in the school for less than 5 (32.7%) and more than 20 years (13.5%).

At the same time, 630 families participated (522 two-parent and 108 single-parent families). Specifically, 60.46% are female and 39.54% male. Table 1 shows their socio-demographic characteristics, taking into consideration only those to which the specialized literature on family involvement ascribes a high level of impact on the process.

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Table 1. Socio-demographic characteristics of the families participating in the study

	Two-parent families		Single-parent families		
Number of children	**Total**		**Total**	**Female**	**Male**
1	13.8		22.2	34.8	32.1
2	65		48.2	21.7	32.1
3	15.7		20.9	17.4	7.1
More than 3	5.5		8.1	26.1	28.7
Educational level	**Total**		**Total**	**Female**	**Male**
Primary Education	21.5		24.4	8.7	21.9
Secondary Education	33.9		41.9	52.2	49.4
Higher Education	43.5		33.7	39.1	28.7
No studies	1.1		0	0	0
Books in the house	**Total**		**Total**	**Female**	**Male**
Less than 10	0.8		4.7	4.3	0
Between 10 and 30	8.3		18.6	8.7	20.7
Between 31 and 50	12.6		15.1	13	20.7
Between 51 and 100	20.7		18.6	8.7	20.7
Between 101 and 150	14.4		11.6	26.1	10.3
More than 150	43.2		31.4	39.2	27.6
Children's books in the house	**Total**		**Total**	**Female**	**Male**
Less than 10	4.3		12.9	4.4	3.5
Between 10 and 30	17.6		25.9	30.4	44.8
Between 31 and 50	23.4		22.4	4.4	17.2
Between 51 and 100	30.9		18.8	30.4	13.8
Between 101 and 150	11.7		10.6	13	6.9
More than 150	12.1		9.4	17.4	13.8
Employment status	**Male**	**Female**	**Total**	**Female**	**Male**
Temporary contract	9.2	8.8	-	21.9	18.5
Permanent contract	29.5	37	-	30.4	44.5
Freelance	15.9	25	-	8.7	3.7
Civil servant	17.6	16.8	-	4.3	7.4
Household work	11.6	0.3	-	0	3.7
Domestic services	4.3	4	-	4.3	0
Unemployed	10.3	8	-	30.4	11.1
Retired	1.6	0.1	-	0	11.1

As far as the student body is concerned, 630 students participated (51.8% boys and 48.2% girls) enrolled in the 5th (50.4%) and 6th grade (49.5%). 89.2% were never retained, while 10.8% were.

2.3. Measuring instruments

Three *ad hoc* questionnaires were devised for each of the participating groups, whose indices of consistency and reliability are contained in Table 2.

The questionnaire meant for the teachers is made up of 9 categorical items and 29 Likert-type questions, adapted from the studies of Hoover-Dempsey, Bassler, and Brissie (1992), and updated on the basis of the results presented by Epstein (2009). The subsequent transformation into 5 indices (see Table 2) was found satisfactory so as to enable us to treat them as dependent variables (DVs). The categorical questions (seniority in the present school and general seniority as a teacher, professional situation and grades taught) were used as grouping or independent variables (IVs) in order to observe their professional practice in interacting with the families.

The questionnaire directed to the families is made up of 6 categorical items and 37 Likert-type questions, subsequently transformed into 5 indices for the mothers and 5 for the fathers (see Table 2).

Finally, the questionnaire for the students is made of 4 categorical items and 50 Likert-type questions, also subsequently transformed into 5 (see Table 2).

In these last two cases, the Likert scale were adapted based upon the validation made by Yotyodying (2012) in order to see the motivating elements which determine the academic result.

Table 2. Consistency and reliability indices of the measuring instruments

	Original scales	Exploratory Factor Analysis							
		Factor	Eigenvalue	% Variance	KMO	Indices	No. of items	Alpha	Total Alpha
Teaching staff	Assessment of family involvement (29 scale items, alpha=.852)	1	7.059	41.524	.873	PROF1	4	.743	.901
		2	2.290	13.471		PROF2	2	.872	
		3	2.077	12.219		PROF3	2	.894	
		4	1.201	7.066		PROF4	4	.714	
		5	1.132	6.657		PROF5	3	.716	
	Socio-professional (9 categorical items)	-	-	-	-	-	-	-	-
Families	Components of the decision to get involved (37 items, alpha=.816): fathers and mothers	1	5.816	17.625	.802	P1	8	.743	.823
		2	3.869	11.724		P2	7	.810	
		3	2.418	7.328		P3	7	.773	
		4	1.823	5.525		P4	4	.704	
		5	1.458	4.418		P5	4	.714	
		1	5.014	15.193	.801	M1	8	.795	.811
		2	3.697	11.203		M2	5	.823	
		3	2.642	8.006		M3	6	.735	
		4	1.741	5.275		M4	7	.755	
		5	1.467	4.444		M5	3	.831	
	Socio-demographic (6 categorical items)	-	-	-	-	-	-	-	-

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	Original scales	Exploratory Factor Analysis							
		Factor	Eigenvalue	% Variance	KMO	Indices	No. of items	Alpha	Total Alpha
Students	Motivating processes which affect academic performance (50 items, alpha= .897)	1	9.762	45.269	.813	AL1	12	.844	.823
		2	4.512	16.270		AL2	12	.858	
		3	3.285	7.520		AL3	10	.811	
		4	2.766	5.475		AL4	7	.806	
		5	1.967	4.610		AL5	5	.777	
	Socio-demographic (4 categorical items)	-	-	-	-	-	-	-	-

2.4. Procedure

The data was collected in 2018 in three stages. In the first, we asked for the permission of the autonomous Galician government; in the second, we contacted the schools to explain the project to them; and, in the last one, in collaboration with the teachers and with the schools' management and counseling teams, we administered the questionnaires to the students in the classrooms and we distributed the questionnaires to the teachers and families, those being subsequently collected by the research team.

The study was carried out in accordance with the recommendations issued by the Bioethics Committee of the University of Santiago de Compostela. All subjects gave their informed written consent in accordance with the Helsinki Declaration.

2.5. Data analysis

Using the IBM SPSS Statistics 24 statistics package with prior codification of the variables, we first checked the non-existence of lost values and subsequently determined the reliability indices (Table 2), the dimensions and the indices by means of the Exploratory Factor Analysis, the basic descriptors, the correlation analyses (Pearson's r), and given that the aim is to compare the various groups, it was fitting to carry out inferential analyses (Student's t-test).

3. Results

3.1. Teaching staff

The characteristics that best distinguish their actions or practices related to family involvement refer to their seniority (in the present school and as teacher in general) and their professional status (staff member or temporary employee). On the other hand, the grade or grades in which they teach is a characteristic which establishes a smaller number of differences (see Table 3).

Table 3. Indicators of the differences between the socio-professional variables of the teaches and the indicators of the practices concerning family involvement

VI	VD	Mean 1	Mean 2	SD 1	SD 2	N 1	N 2	t	df	Bilateral Sign.
Seniority in present school 1 = 5-15 years 2 = 16-30 years	PROF1	2.24	1.72	.676	.323	32	28	7.08	58	.000
	PROF2	1.82	2.03	.768	.411	32	28	-2.51	58	.012
	PROF3	2.12	3.16	.650	.364	32	28	-14.63	58	.000
	PROF4	1.42	1.59	.477	.612	32	28	-3.13	58	.002
	PROF5	2.14	2.57	.528	.542	32	28	-7.02	58	.000

VI	VD	Mean 1	Mean 2	SD 1	SD 2	N 1	N 2	t	df	Bilateral Sign.
Seniority as a teacher 1 = 5-15 years 2 = 16-30 years	PROF1	1.82	2.43	.536	.626	15	45	-12.42	58	.000
	PROF2	1.46	2.11	.445	.766	15	45	-12.02	58	.000
	PROF3	2.21	2.34	.665	.742	15	45	-2.13	58	.033
	PROF4	1.24	1.59	.208	.583	15	45	-9.08	58	.000
	PROF5	2.13	2.26	.538	.545	15	45	-2.85	58	.005
Professional status 1 = Staff member 2 = Temporary employee	PROF1	2.29	1.78	.637	.597	29	31	8.12	58	.000
	PROF2	2.03	1.15	.697	.283	29	31	13.91	58	.000
	PROF3	2.36	2.02	.718	.635	29	31	4.80	58	.000
	PROF4	1.57	1.19	.529	.224	29	31	6.78	58	.000
	PROF5	2.31	1.82	.480	.596	29	31	9.63	58	.000
Grades taught 1 = One grade only 2 = Several grades	PROF1	2.31	1.61	.673	.320	32	28	7.40	58	.000
	PROF3	2.31	2.89	.639	.682	32	28	-6.18	58	.000

As shown, the relationship between the 5 dimensions is highly significant ($p \leq 0.01$ in all of them). In any case, the relationships with more weight were registered, with a mean correlation of .52, among the dimension PROF2 (giving enough importance and effectiveness to the act of counseling the families in matters of homework and exams) and the dimensions PROF3 (giving enough importance and effectiveness to the act of asking for volunteer fathers or mothers to help in their classes) and PROF4 (giving high importance to the act of reading with the children at home and stimulating their interest in the school tasks). These last ones also have a close relationship between themselves ($r=.412$, $p \leq 0.01$) just as the dimension PROF1 (giving enough importance and effectiveness to the act of providing materials to the families and instructing them about their usage) and the PROF2 dimension. As for the last dimension (considering it effective and possible enough that the families have recourse to community services, such as "parents' schools") has a much weaker, albeit significant, relationship with the other four dimensions ($r=.138$, $r=.171$, $r=.237$ and $r=.109$, $p \leq 0.01$, respectively).

It can be observed in the table that the strategy of providing materials to the family and instructing them about their use (PROF1) is practiced by the teachers with less experience in the given schools but with more years as teachers. Their professional status is stable and they teach only one grade (5th or 6th of Primary Education).

The dimension referring to the counseling of families in matters of homework and exams (PROF2), is assumed by those with more seniority in the given school and also as teachers in general having a stable professional situation. The third one, asking volunteer families to help in the school (PROF3), is used by teachers with the same profile and who teach several grades. The fourth one (PROF4), reading with the children at home and stimulating their interest in the school tasks, is used by those who have greater experience in the given school and as teachers in general and with a stable professional situation. Lastly, the fifth dimension (PROF5) which involves the recommendation to families that they use community services ("parents' schools", for instance), is the one most adopted by the teachers with more experience (in the school and as teachers and with a stable professional situation).

3.2. Families

With the evidence provided by our data, we can state that not all the characteristics considered by the initial approach trigger differences in matters of the determining factors for the family's decision to get involved (the employment status and the type of family, in fact, do not). Only those listed in Table 4 showed such a level of influence in the indices referring to mothers and fathers.

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Tabla 4. Diferencias entre las características socio-familiares en cuanto a los elementos que determinan la decisión familiar de implicarse en madres y padres

IVs	DVs	Mean 1	Mean 2	SD 1	SD 2	N 1	N 2	t	df	Bilateral Sign.
Number of children 1 = 1 or 2 2 = 3 or more than 3	M2	4.83	4.76	.266	.322	255	124	2.76	377	.006
	M3	1.86	2.00	.603	.570	255	124	-2.33	377	.020
	M5	3.94	3.78	.763	.779	255	124	2.16	377	.031
	P1	4.76	4.64	.292	.390	183	66	3.12	247	.002
	P4	3.66	3.82	.701	.543	183	66	-2.20	247	.029
	P5	4.12	3.94	.582	.780	183	66	2.32	247	.021
Educational level 1 = Secondary Education 2 = Higher Education	M3	1.99	1.74	.588	.572	221	160	5.17	379	.000
	M4	4.20	4.10	.520	.504	221	160	2.30	379	.022
	M5	4.02	3.73	.693	.832	221	160	4.48	379	.000
	P2	3.67	3.83	.677	.767	163	86	-2.33	247	.020
	P4	3.73	3.59	.655	.669	163	86	2.14	247	.033
Books in the house 1= 50 2 = 51-150	M2	4.75	4.84	.356	.248	95	289	-.330	382	.001
	M3	2.11	1.82	.747	.521	95	289	5.25	382	.000
	M4	4.25	4.13	.530	.511	95	289	2.50	382	.013
	M5	4.07	3.85	.734	.771	95	289	3.10	382	.002
	P3	2.72	2.54	.881	.699	47	202	2.00	247	.046
	P4	3.90	3.63	.733	.642	47	202	3.32	247	.001
	P5	4.21	4.04	.612	.625	47	202	2.22	247	.027
Children's books in the house 1= 50 2 = 51-150	M2	4.79	4.84	.319	.240	184	197	-2.06	379	-.040
	M3	2.01	1.78	.630	.547	184	197	4.78	379	.000
	M4	4.22	4.10	.477	.548	184	197	2.85	379	.005
	P4	3.77	3.61	.724	.613	108	141	2.48	247	.014
	P5	4.16	4.01	.595	.643	108	141	2.50	247	.013

With regard to the mothers, the dimension which showed the closest relationship referred to what we labeled "M4" (focusing the responsibility of a good academic performance of the students exclusively on the family). The highly significant direction of this relationship, was established around the belief in its self-effectiveness in order to get involved every time that the child asks for it (M1, r=.431, p≤ 0.01), prioritizing learning as the student's main aim (M2, r=.321, p≤ 0.01) and of pointing to the school as the responsible for the students' academic success (M5, r=.225, p≤ 0.01).

As far as the fathers are concerned, focusing the responsibility for the students' good academic performance on the school (P5) is the more encompassing dimension in associative terms and thus a significant relationship was established, oriented towards learning as the student's main aim (P1) (r=.282, p≤ 0.01), with the belief in its self-effectiveness in order to be able to get involved

in their children's education (P2) (r=.206, p≤ 0.01) and with important role of the student's request for academic help (P4) (r=.244, p≤ 0.01). The same level of association was also established between the dimensions P1 and P2 (r=.248, p≤ 0.01) and between P1 and P4 (r=.244, p≤ 0.01).

Observing table 4, we see that a bigger number of children affects, for the mothers the orientation of aims towards learning and the focusing of responsibility for the children's education on the school (M5). A smaller number of children impinges on a negative attitude (in terms of rejection). For the fathers, however, a smaller number of children influences the orientation of aims towards learning (P1) and on focusing the educational responsibility on the school (P5). A greater number of children finally has a repercussion on the fathers whose decision to get involved depends on a request from the children (P4).

In general (see Table 4), the higher the level of the parents' studies, the stronger the belief in their self-efficiency to get involved (P2) and, when the studies are primary and or secondary, a negative orientation is established towards the academic achievement as an aim (M3), the responsibility of the education is focused on the family and on the school (M4 and M5) and the decision to get involved, in the case of the fathers, is materialized when the student asks for it (P4).

Finally, a larger quantity of books or children's books are not factors with much bearing in the family's decision to get involved, with the exception – see Table 4 – of the mothers who put learning before achievement as an aim for their children's education (M2).

3.3. *Student body*

Out of all the characteristics included in the study, only two have been shown to have an influence on the motivating processes concerning learning (see Table 5), the ones referring to the grade and to the gender of the students.

Table 5. Indicators of the differences between the socio-demographic variables of the students and the indicators referring to the motivating processes concerning learning

IVs	DVs	Mean 1	Mean 2	SD 1	SD 2	N 1	N 2	t	df	Bilateral Sign.
Grade 1 = 5th 2 = 6th	AL1	3.96	3.70	.662	.744	318	312	4.58	628	.000
	AL2	3.43	3.30	.850	.722	318	312	2.05	628	.041
	AL3	4.19	3.88	.709	.743	318	312	5.21	628	.000
	AL4	2.60	2.17	1.009	.908	318	312	5.40	628	.000
Gender 1 = Boy 2 = Girl	AL1	3.75	3.91	.737	.682	325	302	-2.94	625	.003
	AL3	3.99	4.12	.757	.707	325	302	-2.25	625	.025

With regard to the dimensions, the associations with more weight are established between the regulation of negative academic emotion when facing stressful academic situations (AL1) in which the subject intends to solve the conflicts, considering them important for himself/herself (we give as an example two items: "I know that I can solve the problem" and "I make efforts because I want to understand"). The relationships are established with AL2 (r=.362, p· 0.01) referring to a type of extrinsic motivation in which the subject makes efforts to solve school tasks in order to avoid anxiety or obtain self-reinforcements such as "pride". The same goes for AL3 (r=.471, p· 0.01) focused on a perception of a "flexible" style of involvement based on the support and the encouragement coming from the parents. The level of association between the latter is still high (AL2-AL3, r=.158; AL2-AL4, r=.287 and AL3-AL4, r=.228; all of these at a level of p≤ 0.01).

In regard to grade and gender (see Table 5), those who manifest a greater regulation of the academic emotion (AL1) are the girls and the 5th grade students, who also manifest, a special motivation for avoiding anxiety or feeling pride (AL2), the perception of a flexible style in the involvement of their parents (AL3, in this case also in the girls) and the absence of self-reinforcing expressions or actions when solving a difficult task (AL4).

4. Discussion and conclusions

The initial idea behind researching the elements which condition the process of family involvement

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and which, among other consequences, influence the students' motivation in dealing with their academic tasks, was solved, to a large extent, in light of the results obtained with the present study.

The theoretical basis which postulates how families make the decision to get involved in the homework dynamics (Epstein, 2009; Sheridan & Kim, 2015) was shown as solid, because of the weight and statistical significance registered while analyzing the association between the variables making up each of the levels of the process in question. This is due to the fact that the methodological approach and mainly the measuring instruments have credibly captured the actions of the main actors of this stage (teachers and families) and also confirmed that the choice of those who participated in the study was correct. It is logical, given the consensus on the method of proceeding when one started to devise a study on this phenomenon (Creemers & Kyriakides, 2008; Epstein, 2009; Latunde, 2017).

The teaching staff's intervention and beliefs were shown to be clearly conditioned by the number of years they had spent in the school, by their teaching experience, by their job stability and by whether or not they work with one grade only. As far as their practices are concerned, the counseling of the families in matters of homework and in order to prepare evaluations, together with the distribution of tutorial materials, are the most present actions, which matches the findings of similar studies (Epstein & Dauber, 1991; Epstein & Van Voorhis, 2001; Jung & Han, 2013).

The decisive factors in the family's decision to get involved in this research are located in the first level of the model suggested by Hoover-Dempsey and Sandler (1995). It is here that we find the motivating elements which initiate the involvement and in which the construction of the parental role is salient (the ideas about the role that the parents have to assume in the school-related matters relevant to their children). In this case, the mothers with several children (three or more) believe that this responsibility lies directly with the family, whilst the fathers having one or two children, delegate such responsibility to the school. Here as well, there is a clear consensus, in empirical terms in attributing to this factor an important role in the decision to get involved (Grolnick, Benjet, Kurowski, & Apostoleris, 1997; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Reparaz & Jiménez, 2015; Walker, Ice, Hoover-Dempsey, & Sandler, 2011).

The features of the student body which represent the guiding thread towards academic achievement are situated at level 4, postulated by the model we started with. The grade they are in, 5th of Primary Education, was shown to be the variable with most capacity to differentiate between the influence of the regulation of positive academic motivation (when a difficult task is solved) and the negative one (when there is pressure to solve school tasks), as well as the motivation of controlled learning (in order to make effort in doing the homework) and the perception of family support and interest in school-related matters. The disciplinary strategies employed by the family when faced with a negative or absent school performance (rigid style of involvement) were not shown as being affected by any of the variables in which the student body is grouped. These results are in agreement with other studies which use cross-sectional and longitudinal methodologies (Cerasoli, Nicklin, & Ford, 2014; Ryan & Deci, 2000; Sheridan & Kim, 2015; Yotyodying, 2012).

In any case, the study we present could be more consistent when monitoring and longitudinally analyzing the importance of the different variables in order to verify the stability of the motivating elements.

It is precisely on the basis of the model proposed by Hoover-Dempsey and Sandler (1995) and on the solidity of proof offered by the empirical data which we have just spelled out, that the Implica2 program (http://www.usc.es/esculca/proyecto_implica2)is designed and evaluated; it involves families with children enrolled in the 4th, 5th and 6th grade of Primary Education. It is a psycho-social program focused on promoting family involvement and the improvement of the students' study habits and techniques. Its main aim is the optimization of the strategies which shape the students' learning in the family context, in order to improve their academic results and raise the level of their expected academic success.

The Program consists of two sub-programs. One of them is directed towards the students and its aim is to train them in the learning of study habits which would have a positive impact on their academic performance. The other one is directed towards the families and its aim is to improve their involvement in the school trajectory of their children. A guide was also devised with the aim of serving as a support tool for the families in regard to certain matters having to do with the school life of the minors. A previous study was used for the design of said guide (Santos Rego & Lorenzo, 2015).

Specifically, the program consists of five sessions with an approximate duration of two hours each (a total of 10 hours), of which the last one aims at the evaluation of the program by the participants. In its development, the following content is approached: the beginning of adolescence, the

communication within the family, the family's responsibility regarding the children's learning and homework. Moreover, the necessary instruments were designed to evaluate the program; they include scales for the students, families and teachers as well as a daily action and incident reports.

Nota

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