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## Family and personal facilitators in the academic achievement

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## Family and personal facilitators in the academic achievement

### Abstract

Researchers and educators raise the question of whether pupils' academic performance can be improved through parental involvement in academic activities. The main objective of the following study is to verify whether parental involvement in school activities and family socio-economic status (SES) have an influence on children's academic achievement.

The sample used is of 150 Spanish seventh grade pupils, who completed intelligence tests; and their teachers, who assessed parents' involvement levels in the school and estimated parents' cultural levels. To measure academic achievement the pupil's overall grade (SOG) was used. The SOG was taken from the Pupils' Final Evaluation Registers. The educational level and professional level of the mother and father and home size were obtained from the Pupil Personal Register; these variables define the family SES.

The data, analyzed through the analysis of structural equations, confirm that academic achievement is directly influenced by the cultural level of the family and the child's IQ, but is indirectly influenced by parental involvement in school activities and the socio-economic status of the child's family. Special attention is paid to the importance parental involvement has on the child's academic achievement.

## Family and personal facilitators in the academic achievement

Currently there exists growing concern about low school achievement in a large number of pupils. Explanations for this educational crisis differ greatly from inadequate school curricula to the existence of a “pervasive popular culture” that does not value school achievement. This issue is extremely complicated. Through the synthesis of various studies on educational research, Fraser, Walberg, Welch and Hattie (1987) have shown that nine theoretical constructs have a constant influence on academic learning: capacity, earlier knowledge, motivation, amount and quality of instruction, home curriculum, social climate of classroom group, peer group outside school and leisure-time television viewing. Similarly, Marjoribanks (1994) claimed that children’s learning is probably related to the family structure variables (e.g. family size), to school structural characteristics (e.g. composition of teaching groups, nature of the curriculum covered), to psychosocial interactions that take place in the families and in the schools, to the perceptions individuals have of such interactions, and to children’s individual dispositions and characteristics.

This study has been presented with the purpose of increasing knowledge on relation to the teacher perception of a pupil’s family and the academic achievement of this pupil. To be more specific, our intention is to answer the following questions: 1) do family variables influence in the evaluation academic achievement?, 2) to what extent is this evaluation influenced by family socioeconomic status (SES), pupil’s intellectual abilities and parents involvement in the education (PI) estimated by the teacher?, 3) to what extent does the teacher resume his/her perception of the pupil’s background (personal and familiar), in one construct, as maybe parent cultural perceived level?

These questions are of particular importance to school psychologists who are attempting to enlist parents in the schooling of their children or who work with teachers of children whose parents may not be overly involved. Conoley (1989) claimed “as school psychologists, we can fail in our work with children if we do not understand their families and their schools.”

Intelligence and intellectual aptitudes go to make up the factor most studied in relation with achievement and one of the most stable factors when it comes to predicting the same; the achievement variance explained by intelligence is estimated at around thirty-five per cent (Castejón & Navas, 1992).

Most authors agree to claim that family variables have an influence in development and educational achievements of children (Christenson, Rounds & Gorney, 1992; García, Clemente, Sorribes & Villanueva, 1994; Marjorinbanks, 1994). But, what family variables are most

important? Many authors have distinguished between family structure variables and family process variables (Reynolds & Lee, 1991). The first group usually include parent professional and educational levels, marital status, family constellation, etc. The process variables, denominated by Walberg as “home curriculum”, have been grouped by Christenson et al. (1992) in five categories: parents expectations and attributions, home learning structure, family affective climate, disciplinary styles and parent involvement in children’s education. However, the degree to which they influence each other continues to be debatable. If Walberg (1984) found that home curriculum predicted academic learning better than great inequalities in size and economic resources between families, Keith, Troutman, Trivette, Keith, Bickley and Singh (1993) stated that the total effect of SES on children’s academic achievement at school is higher than that reached by the parent involvement level. We see the need for further research into the interaction between family process variables and family structure variables as well as their effects on academic achievement.

Although the current trend highlights the relevance of process variables against socioeconomic ones, it cannot be ignored that many family processes take place preferentially in certain family environments that can be described on the bases of certain socioeconomic or structural characteristics. For example, parents with primary studies prefer using coercive disciplinary techniques, while parents with university studies employ affective techniques; the academic performance of pupils from large families is slightly, but consistently, lower than that of children from smaller families; in general, two-parent families are more effective in helping their children to comply with their role as pupils than other family structures. In earlier studies, we have shown that family SES variables, especially the mother’s educational level, are narrowly related to children’s development and academic performance (García & Rosel, 1997).

Even given these results, it is generally agreed that parent involvement is an effective and necessary process for improving pupils’ learning (Christenson, Rounds & Franklin, 1992). However, parent involvement is not an unitary construct nor have the results obtained been totally consistent (Keith, 1991). Authors disagree about whether or not parent involvement adds more variance to school achievement than the different SES indicators.

Some accept that the direct effect of the parent involvement level on achievement is greater than that of SES, but that parent involvement is partly determined by SES (Keith et al., 1993), others have indicated that it is precisely the parent involvement level that explains almost all the influence parents’ educational level has over achievement (Stevenson & Baker, 1987). Not all types of parent involvement, however, have proved to have the same relation with achievement, neither does a given family variable have the same effect on the different types of parent involvement. Singh, Bickley, Trivette, Keith, Keith, and Anderson (1995) pointed out that the level of parents’

educational aspirations have a powerful influence on academic outcomes of eighth grade pupils, but the incidence of parent-child communication is small or non-existent. On the other hand, Miller (1986) indicated that parents' educational level influences their degree of interest in school matters, but not their level of participation in parent associations. Whatever the case, among the main background factors to parent involvement figure numerous family socioeconomic variables (Grolnick & Slowiaczek, 1994; Keith et al., 1993).

Lastly, parent involvement is not unlinked to the role teachers play, which prompts the question, how do teachers influence parent involvement levels? While Dauber and Epstein (1993) claimed that teachers' practices in promoting and guiding parent involvement and their sensibility toward parents' differential needs are the best predictors of parent involvement, Seeley (1989) observed that some teachers think promoting parent involvement practices does not form a part of their professional role and see them as interfering with teaching tasks that do.

As some studies have demonstrated, teachers have a negative vision of the family, which leads to family variables being seen as the cause of children's educational needs (Moses & Croll, 1987). Indeed, there are many teachers who believe that parents will continue to offer a low level of involvement even when given opportunities to improve it (Leitch & Tangri, 1988). And Leicht and Tangri (1988) added that teachers believe, although not expressly, that uninvolved parents have a negative influence on home-school relations. However, Rich (1987) claimed that the emphasis teachers give to family conditions should be interpreted more as a recognition of the importance of the home as an educational environment than as an attempt to blame the family.

The main purpose of this study is to understand how family socioeconomic status and pupil's intellectual ability influence in the pupil's academic achievement, regarding parents involvement in education and parents cultural level (perceived by the teacher), as mediator variables.

## **Method**

### **Model**

The model proposed is based on Keith et al. (1993). This model is designed to test the influence of parent involvement perceived by the teacher on seventh-grade pupils' academic achievement, after controlling for relevant background variables (family socioeconomic status variables and pupil intellectual ability).

The model contains two original contributions to Keith's: a) the model considers that parent involvement influencing achievement is not so much the parent involvement reported by parents themselves as the parent involvement perceived by teachers. According to Huselbosch (1991), teachers can be for or against parent involvement, and also as Grolnick and Slowiaczer (1994) point out teachers may act as the mechanism through which the positive effects of parent involvement

manifest themselves; b) the model considers that the multiple influences on academic achievement can be mediated by the evaluation the teacher makes of the pupil and his/her family. The opinion the teacher has of the pupil is very influenced by the one he/she has of the family and vice versa; the teacher finds it difficult to separate the opinion of the pupil from that of his/her family.

The Parental Involvement Perceived by Teachers Questionnaire (PI-T, García, 1989) presented an item which asked teachers to estimate parents' cultural levels. This variable was included in the model because it was assumed to have a molar or global character. The hypothesis that it is a variable in which the teacher summarizes the different information obtained about the pupil and his/her family environment is based on the following: a) it has a high discriminating capacity in measures of child competence and parent involvement measures (García & Rosel, 1996), b) it correlates significantly with measures of academic achievement, with measures of intelligence, and with parent involvement measures over and above those reached by any of the socioeconomic variables; c) the correlations with family socioeconomic variables oscillate between .21 and .34, which suggest that this variable, even though significantly related with family socioeconomic variables, is not exclusively identified with them; d) it is a teacher-perceived variable.

Although the model is especially focused on the effects of family variables on academic achievement, the effect of pupil intellectual ability on academic achievement could not be ignored (Alexander, Pallas & Cook, 1981). Consequently, academic achievement is claimed to be the direct results of the pupil's personal resources (intellectual ability) and the resources to which the pupil has access –determined by his/her social origin and the level of parent involvement.

### Sample

The sample is made up of all the pupils in seventh grade (N=163), their parents and their teachers. Sample came from three public primary schools in the urban area of Castellón (a Spanish city on the Mediterranean coast with approximately 110,000 inhabitants) selected for the Local Education Authority as representative schools **of the different areas** of the city.

The pupils were from five classes, two in school A (N=27 and 34), two in school B (N=40 and 39) and one in school C (N=24). On not being able to complete information on thirteen pupils, the sample was reduced to 150 pupils (85 males and 65 females, with N per classroom of 25, 32, 34, 35 y 24, respectively). There was an homogeneous distribution of pupils' gender and age in the five classrooms. 92% of pupils were 13 years old and Caucasian.

Mothers and fathers were distributed equally over the different educational levels: 19% had not finished their primary studies; 50% had completed primary studies, and 31% had completed high

school or university levels. As to professional levels of mothers, 41% were housewives, 34% were cleaners or pieceworkers, 16% were clerks or middle grade technicians, only 7% pursued careers requiring university qualifications and 2% ran a small business. In the case of fathers, 16% were unemployed or were unskilled workers, 20% were self-employed (with their own business, but without employees), 40% were specialized technicians or had a small business with employees, and 24% pursued careers requiring university qualifications.

As to the number of rooms in the home (excluding the lounge, the kitchen, and the wash-rooms), 23% of families had three rooms, 52% had four, and 17% had 5. Only 6% had more than 5 rooms and 2% less than 3.

### **Variables in the Model**

**Family Socioeconomic Status.** The educational level and professional level of the mother and father and home size were obtained from the Pupil Personal Register (PPR). These variables define the family SES. When data was not available in the PPR, we asked the pupil or telephoned parents.

The parents' educational level was categorized from 1 to 5: value 1 – no studies–, value 2 –elementary incomplete–, value 3 –elementary school–, value 4 – high school– and value 5 –university qualification–. The parents' professional level was categorized from 1 to 5: value 1 –housewife (husband), unemployed–, value 2 –cleaner, pieceworker, laborer, farmer warehouse worker–, value 3 –self-employed, office worker–, value 4 –skilled laborer, business with employees – and value 5 –profession needing university qualification–.

The number of rooms variable refers to the number of rooms in the home, once the dining room, the kitchen and the washrooms had been excluded.

**Pupil Intellectual Ability.** All pupils answered Yuste's Differential and General Aptitudes Battery (1988), in its Badyg-M-form, which measures general verbal and non-verbal intelligence.

The verbal intelligence scale is made up of three sub-tests (verbal mental ability, verbal comprehension, and numerical aptitude). The reliability obtained by the split-half method was .92, and the reliability of the test-retest in a year was .85. As to validity, the correlations obtained were between .81 and .86 with the OTIS test and .55 with school achievement. The non-verbal intelligence scale is also made up of three sub-tests (non-verbal mental ability, logical reasoning, spatial aptitude). The reliability obtained by the split-half method was .94 and the reliability of the test-retest was .83. As to validity, the correlations obtained were between .51 and .56 with the RAVEN test and .31 with school achievement. The correlations between the verbal and non-verbal scale was .74.

**Parent Involvement.** The parent involvement variable was of primary interest in this study. Teachers estimated the parent involvement level of their pupils' parents using the factors of the PI-T Questionnaire (García, 1989) that provide information about two kinds of parent involvement in the school: *teachers-parents contacts* (made up of 7 items on a four-point scale —always, often, sometimes, never—; e.g., “attend meetings with the teacher”, “collaborate with the teacher”) and *parent participation in school activities* (made up of 6 items on a four-point scale —always, often, sometimes, never—; e.g. “they express opinions about the organization of the school”, “they are active members of the PTA or school councils”). These two parent involvement modes have a certain similarity with two of the types of parent involvement proposed by Epstein (1988): parent involvement at school and parent involvement in governance and advocacy. They are measures of parent involvement perceived by teachers (Keith, 1991). Using measures of perceived parent involvement is quite common in studies: Stevenson and Baker (1987) relied on teachers' estimations of the frequency with which parents participated in a variety of school activities, and Fehrman et al. (1987) asked children about parent involvement levels.

As to the validity of the PI-T questionnaire, it established significant correlations with parents' conceptions of education and their participation in the school (values between  $r = -.25$  and  $r = .46$ , for  $N = 75$ ). García (1989) correctly classified 87 % of pupils by social status using the four measures from the PI-T questionnaire, and another nine measures from teacher evaluations of pupils. The alpha coefficient reliability was .88 ( $N = 150$ ).

**Parent Cultural Level.** Teachers were asked to estimate parents' cultural levels using a scale with four categories “very low”, “low”, “medium” or “high”. Teachers were not offered any classifying criteria; the desired measure was his/her perception of family cultural level. The idea behind incorporating this variable is to provide a global indicator of the perception teachers have of their pupils' families. García and Rosel (1996) classified parents according to teacher-rated cultural levels and found significant differences in intellectual level, academic self-esteem, social status, estimated achievement and effort level of pupils, and in various parent involvement measures.

We are giving priority to perceptive measures over objective ones. Bronfenbrenner (1979) claimed that physical and objective characteristics are not the only important ones in the description of the environment, far more important is the meaning these characteristics take on for the people living in it.

**Academic Achievement.** To measure academic achievement, the pupil's overall grade (SOG) was used. The SOG was taken from the Pupils' Final Evaluation Registers (PFER), the only official document registering academic outcomes. The overall grade is not an arithmetical mean of the grades in each subject, it is more of a joint qualitative evaluation by all teachers who have given



class to a pupil. The qualifications were given values: *excellent* (five), *very good* (four), *good* (three), *sufficient* (two), *insufficient* (one), and *very deficient* (zero).

### Procedure

Once the schools had been chosen, the research team informed principals of the aims of the research and asked for the participation of 7<sup>th</sup> grade students, their parents and their teachers.

Firstly, all the 7<sup>th</sup> grade students were administered an intelligence test. Then, the teachers were asked to inform on the level and type of parent involvement of each pupil's family. Some teachers claimed not to feel qualified to give their opinions of the families. Others were not keen to report on families. Given the situation, the research team informed them that the aim was to discover the perception they had of the relationship a particular family had with them and the school, independently of whether or not that information coincided with information obtained from other sources, for example, parents themselves or the principals. We had made sure, beforehand, that all teachers knew students' families from the previous academic year.

Finally, the educational level and professional level of the parents and the number of rooms in their houses were obtained from the Pupil Personal Register (PPR). These variables represent a valid index of family socioeconomic status and, therefore, of the support or resources parents can offer their children. In Spain, there are no reliable statistics on family income levels and, culturally, there is reticence to revealing real income levels, that is the reason why parents were not directly asked about this. In Spain, the percentage of families having their own home is much higher than those living in rented accommodation. Having your own home, then, is not such a discriminating SES item as home size or the number of rooms.

At the end of the academic year, we asked the schools' permission to consult their Pupils' Final Evaluation Registers (PFER). The PFER only reflect the overall grade obtained by the student and, when the overall grade is insufficient or very deficient, failed subjects are also reflected.

### Results

The variable means, standard deviations, and intercorrelations among the variables in the model are shown in Table 1. Pearson's "*r*" correlations have been presented to facilitate replication for the calculations of the effects of the structural equation analysis.

PUT TABLE 1 IN HERE

First of all, we test the measurement models for each latent variable. The models were estimated through **exploratory** factorial analysis of principal components (PCA), varimax orthogonal rotation, number of factors was limited to the numbers of eigenvalues greater than 1.00, according to Kaisers criterion. Analysis were made using the **SPSS for Windows 5.1**.

PUT TABLE 2 IN HERE

The variables mother educational level, mother professional level, father educational level and home size are gathered in only one factor (Barlett test,  $\chi^2$  (6 d. f.)= 210.184,  $p = 0.000$ ). this factor explain the 65.13 % of the variance of the latent variable Family Socioeconomic Status. The variables general verbal intelligence and general non-verbal intelligence are gathered in only one factor (Barlett test,  $\chi^2$  (1 d. f.)= 55759,  $p = 0.000$ ); this factor explain the 78.05 % of the variance of the latent variable Pupil Intellectual Ability. The variables teacher-parents contacts and parent participation in school activities are gathered in only one factor (Barlett test,  $\chi^2$  (1 d. f.)= 64026,  $p = 0.000$ ). This factor explain the 79.67 % of the variance of the latent variable Parent Involvement. The results suggest that the measurement models are satisfactory, each latent variable fit the data adequately.

The model was estimated through structural equation analysis, using the EQS for Windows 5.1 program (Bentler, 1995). The results of the structural equation analysis are shown in Figure 1. The fit statistics suggest a good fit of the model to the data ( $\chi^2 = 34.32$ , d.f.=30,  $p=.268$ , NFI=.942, NNFI=.988, CFI=.992). The beta coefficients ( $\beta$  values) are standardized. All standardized direct effects appearing in the model are significant with  $\alpha=5\%$ .

#### PUT FIGURE 1 IN HERE

The direct background to pupils' academic achievement are parent cultural level ( $\beta=.467$ ;  $t=2.18$ ) and the pupil's intellectual ability ( $\beta=.685$ ;  $t=4.11$ ). The pupil's intellectual ability also has a significant indirect effect on achievement through parent involvement and parents' cultural levels ( $\beta=.195$ ;  $t=2.12$ ) (see Table 3). These results indicate that the best grades are obtained by the most intelligent pupils and/or by pupils whose parents have the highest cultural levels.

Parent involvement levels have a direct effect on parent cultural levels rated by the teacher ( $\beta=.739$ ;  $t=7.04$ ). Given that both factors are assessed by the teacher, and bearing in mind the two parent involvement measures finally included in the model, this result suggests that one of the sources teachers use to estimate parents' cultural levels is the amount of time parents spend at the school. Parent involvement itself is affected by family socioeconomic variables ( $\beta=.242$ ;  $t=2.43$ ) and children's intellectual ability ( $\beta=.566$ ;  $t=4.60$ ). In the teachers' opinion, parents with higher educational and professional levels and with more intelligent children get more involved in the school. Parent involvement also has an indirect effect on pupils' academic achievement, through perceived parents' cultural level ( $\beta=.345$ ;  $t=2.11$ ).

In the model, there is no evidence of direct effects of family socioeconomic variables on pupils' educational achievement. Family socioeconomic variables influence children's school outcomes through parent involvement ( $\beta=.083$ ;  $t=1.51$ ). But, given the positive and significant

covariance between children's intellectual ability and family socioeconomic variables ( $\phi=.392$ ;  $t=3.34$ ), and the wide agreement among researchers about linking high intellectual levels in children with high social class (Walberg & Marjoribanks, 1976), their contribution to educational outcomes should not be ignored. García and Rosel (1996) detected differences in children's intellectual ability according to the mother's educational level and the professional level of both parents.

### Discussion

The results obtained show that the family has an influence over children's educational achievements. The sum of the direct and indirect effects of the three family factors on pupils' grades is very high ( $\beta=.895$ ), slightly higher than the total effect of children's intellectual ability ( $\beta=.880$ ). What is more, we must consider that part of the effect of intellectual ability on educational achievement is produced through parent involvement and parents' cultural levels ( $\beta=.195$ ).

#### PUT TABLE 3 IN HERE

According to the model, teachers perceived that parent involvement had a significant effect, albeit indirect, on pupils' academic success ( $\beta=.345$ ;  $t=2.11$ ). But, if we consider that parent involvement is the only variable used in the model that can be modified by the intervention of teachers and school psychologists, its importance increases. Teachers not only believe that non-parent involvement negatively affects family-school relations and children's school outcomes as Leitch and Tangri (1988) claimed, but also that parent involvement positively affects children's school outcomes. This result confirms the idea that teachers evaluate their pupils' families and concede them determined effects on academic achievement. In the model tested here only the measures of parent involvement in schools have been included ("teacher-parent contact" and "parent participation at school"), which could be indicating that teachers only concede value to parent involvement in the school (Grolnick & Slowiaczek, 1994), or that they underestimate or ignore parent involvement at home (Johnson, 1991).

Teachers believe that parents are a good resource for favoring their children's educational achievement if their physical presence in the school is high (they attend or participate) and/or if they have high professional and educational levels. Therefore, the teacher may be the channel through which the positive effects of parent involvement on children's achievement and adjustment are produced (Grolnick & Slowiaczer, 1994). Epstein (1988) pointed out that the fact that parents have meetings with the teacher could influence the teacher's interest in orientating the pupil in his or her learning. And then, they also become more familiar with the teacher's proposed educational goals, which enables them to be of more help to their children (Epstein, 1986), and so it goes on.

The results of the study of the differential effect of family socioeconomic variables and parent involvement on children's educational outcomes, confirm those encountered by Keith et al. (1993): even though family socioeconomic variables only affect achievement indirectly, the thesis that parent involvement is based on SES does seem to be confirmed (García & Rosel, 1997). That is to say, parents with high professional and educational levels are more involved, and this parent involvement (as perceived by teachers), in turn, produces higher achievements. However, Grolnick and Slowiaczek (1994), quite rightly, wanted to draw our attention to the possibility that parents with different educational levels get involved in different ways.

**The results seem to confirm the molarity the factor parent cultural level perceived by teacher:** Firstly, is the only factor, along with the pupil's intellectual ability, that directly influences academic achievement. Secondly, all the other factors show effects on achievement ultimately through cultural levels; being significant in the case of parent involvement ( $\beta=.345$ ;  $t=2.11$ ) and intellectual ability ( $\beta=.195$ ;  $t=2.12$ ). Thirdly, it is significantly influenced by parent involvement ( $\beta=.739$ ;  $t=7.04$ ), family socioeconomic status ( $\beta=.179$ ;  $t=2.04$ ) and pupil's intellectual ability ( $\beta=.418$ ;  $t=3.64$ ). **This result could be explained by findings made in a variety of research areas. No obstante, conviene recordar that the fact that this factor was based on one variable was an important limitation of this study.**

Research regarding teachers expectations about pupils suggest that many of the teachers opinions about pupils are generalizations (Carr & Kurtz, 1991), based on some salient characteristic of the pupil, and on pre-existing theories (quotidian or scientific) in culture. As Pajares (1992) points out, teachers beliefs are the result of an "enculturation process"; specifically, it may be that the attributed educational value of some family life characteristics in our society, is included in the semantic net of teachers beliefs about pupils achievement. In this sense, our work seems to indicate that teachers, when elaborating their beliefs about educational determinants, tend to use those characteristics from family context that are easily accessible due to their salience or externality, as for example, parents educational and professional level, or parents presence in the school.

This assumption is specially important because teachers implicit ideas are quite resistant to change, have a strong penetration of their cognitive schemas about children education and their effects are observed in the way in which teachers plan their teaching, when they interact with their pupils and in pupils' achievement (Fuchs, Fuchs & Phillips, 1994; Marredo, 1994). As Davies (1989) claims, teachers believe that parents from low SES have very little to offer to the school and to their own children. Johnson (1991) also detected that teachers tended to sub-estimate or ignore

parent involvement at home, which made them elaborate a poor image about pupils whose parents do not have an active presence at school.

A second explanation arises from the theories of family deficit or social determinism, which attempt to document the benefits associated with middle and high social class. Coleman (1987) claimed that schools, whatever their quality, are more effective over children living in homes with a strong background than over children from families with a weak background. Laureau (1989) concluded that parent involvement level was linked to parents socioeconomic status. Connell, Asheden, Kessler and Dowsett (1982) suggested that teachers have in mind certain combinations of family variables when they referred to a pupil with “bad” or “good” family backgrounds, and that some of these family variables correlate to school success and that school failure increases in families with shortcomings in these qualities. Others authors suggest that the essential element in pupils’ achievement is the continuity between rules at school and those employed at home (Hansen, 1986), or the consensus between school and home on the goals to achieve (Hess & Holloway, 1984). Laosa (1978) found an enormous similarity between the kind of strategy used by mothers of a high educational level and the academic style of teachers. These findings could explain the success of pupils from families with a medium to high cultural level and the underachievement of children from ethnic minority group (Frisby, 1992).

In the light of the information presented, it seems clear that to maximize the quality of school experience for as many children as possible, school professionals need access to accurate information of the varied pupil family backgrounds, and a theoretic model that helps them to construct agreements about the impact these backgrounds have on school adjustment and achievement (Procidiano & Fisher, 1992). School psychologists also need an increasing amount of knowledge about the main dimensions in which families can vary (configuration, ethnic and cultural diversity, stressful situations, families with members in a vulnerable situation, families’ personal and social resources) as Procidiano and Fisher (1992) proposed, identifying wide areas of family influence on pupils’ achievement (Christenson et al., 1992b), analyzing parents’ values and needs and their perceptions of the school and teachers (Redding, 1991). This does not imply that schools necessarily have to provide all types of parent involvement. The goal should be to achieve a match between what parents want and what schools perceive as feasible for supporting pupil performance (Christenson, Sheridan, Hurley & Fenstermacher, 1997). On the other hand, it is necessary for educators to promote parents’ attendance, support them and instruct them on how to help their children to study (Christenson et al., 1992b). Unfortunately, teachers’ professional training does not include procedures for working with parents.

To sum up, the main conclusions are that family characteristics affect pupils' school outcomes almost as much as their intellectual ability; that teachers tend to integrate the information they have about the family and the pupil; and that parent involvement, as process of family-school connection plays a central role in the evaluation teachers form of their pupils.

These aspects highlight the need for research on the ideas-perceptions teachers have of the family, making them specially sensitive toward the different –equally valid– forms that the educational role of parents can adopt, and to research a variety of procedures through which teachers can favor parent involvement, studying the viability and efficiency of each different strategy according to the proposed aims regarding parent involvement. As a result, the school system should immediately incorporate systematic work with families, promoting comprehensive models of family-school collaboration and establishing distinct parent involvement procedures in response to family diversity.

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Figure 1. Model of effects of parental involvement on seventh grade academic achievement (standardized parameters)

Chi-square=34.32,  
df=30,  
p=.268  
NFI=.942  
NNFI=.988  
CFI=.992

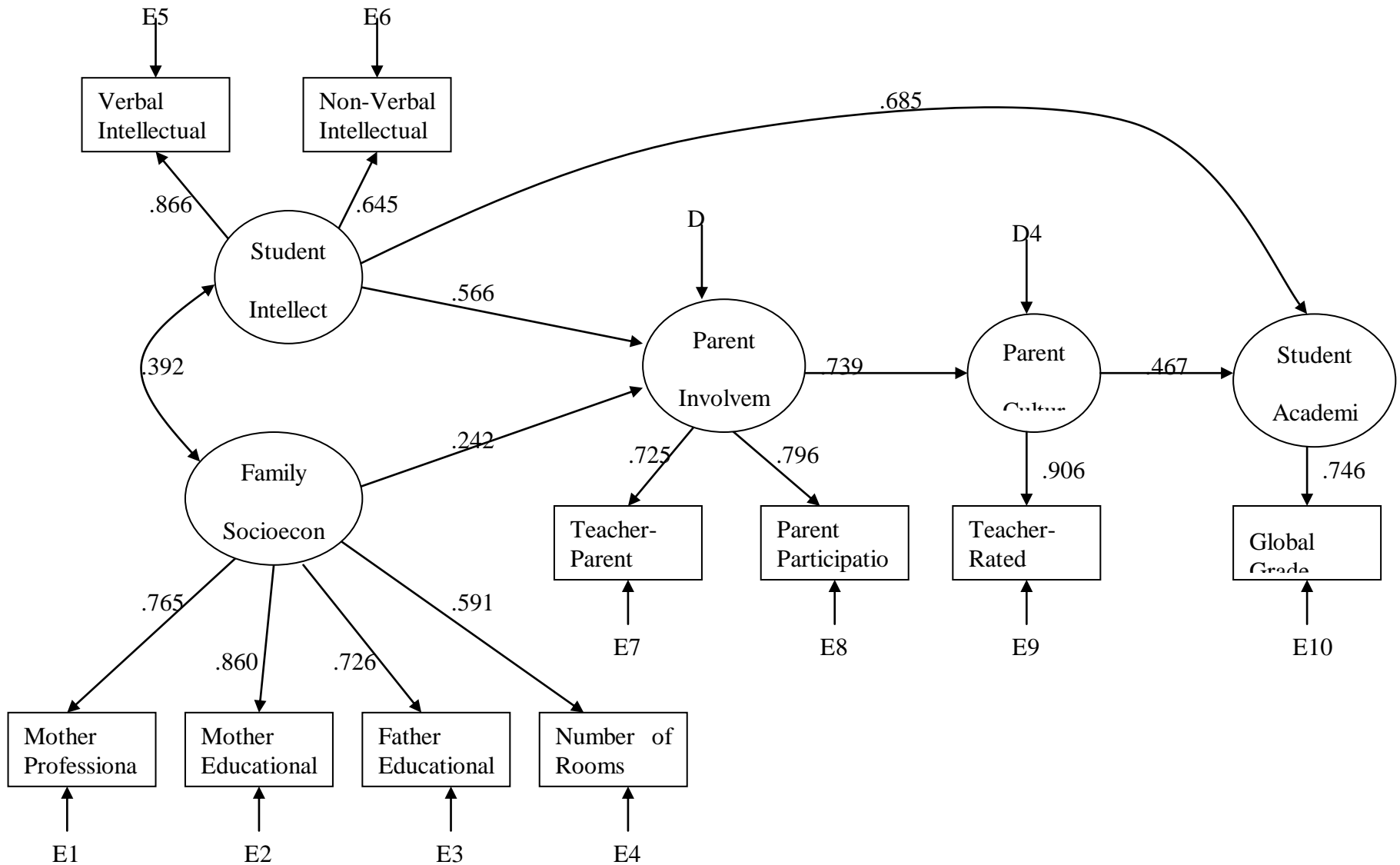


TABLE 1  
Measured Variable Correlations, Means, and Standard Deviations (N=150)

Variable	Mother's Professional Level	Mother's Educational Level	Father's Educational Level	Number of Rooms	Verbal Intellectual Ability	Non-Verbal Intellectual Ability	Teacher-Parent Contacts	Parent Participation in school	Parent Cultural Level	Global Grade
Mother's Professional Level	1.00									
Mother's Educational Level	.66 (p=.000)	1.00								
Father's Educational Level	.54 (p=.000)	.60 (p=.000)	1.00							
Number of Rooms	.42 (p=.000)	.49 (p=.000)	.48 (p=.000)	1.00						
Verbal Intellectual Ability	.24 (p=.003)	.30 (p=.000)	.22 (p=.008)	.18 (p=.025)	1.00					
Non-Verbal Intellectual Ability	.16 (p=.044)	.27 (p=.000)	.09 (p=.269)	.05 (p=.587)	.56 (p=.000)	1.00				
Teacher-Parent Contacts	.30 (p=.000)	.30 (p=.000)	.29 (p=.000)	.21 (p=.012)	.41 (p=.000)	.34 (p=.000)	1.00			
Parent Participation in school activities	.30 (p=.000)	.25 (p=.002)	.23 (p=.004)	.15 (p=.062)	.43 (p=.000)	.34 (p=.000)	.59 (p=.000)	1.00		
Teacher-rated Parent Cultural Level	.30 (p=.000)	.21 (p=.011)	.34 (p=.000)	.21 (p=.010)	.40 (p=.000)	.37 (p=.000)	.44 (p=.000)	.55 (p=.000)	1.00	
Global Grade	.30 (p=.000)	.32 (p=.000)	.30 (p=.000)	.14 (p=.103)	.60 (p=.000)	.43 (p=.000)	.39 (p=.000)	.43 (p=.000)	.54 (p=.000)	1.00
M	1.01	3.25	3.21	4.03	47.65	49.66	12.09	6.80	2.79	2.33
SD	1.13	1.01	.99	.93	13.63	14.80	6.00	3.16	.96	1.69

TABLE 2  
Measurement Models. Exploratory Factorial Analysis. Rotated Factor Loadings

<b>Factors</b>	<b>Variables</b>	<b>Loadings</b>	<b>Variance Explained</b>
Family Socioeconomic Status	mother educational level	.862	65.13 %
	mother professional level	.818	
	father educational level	.816	
	number of rooms	.726	
Pupil Intellectual Ability	general verbal intelligence	.883	78.05 %
	general non-verbal intelligence	.883	
Parent Involvement Perceived Level	teachers-parents contacts	.893	79.67 %
	parent participation in school activities	.893	

TABLE 3

Direct, indirect and total effects of family socioeconomic status, parent involvement, parent cultural level, and student intellectual ability on student academic achievement

<b>Factors</b>	<b>Effects</b>		
	<b>Direct</b>	<b>Indirect</b>	<b>Total</b>
Family Socioeconomic Status	----	.083 (n.s.)	.083 (n.s.)
Parent Involvement Perceived Level	----	.345 (p<.001)	.345(p<.001)
Parent Cultural Perceived Level	.467 (p<.050)	----	.467(p<.001)
Pupil Intellectual Ability	.685 (p<.001)	.195 (p<.050)	.880 (p<.001)