FAMILY INFLUENCES IN ACADEMIC ACHIEVEMENT
A study of the Canary Islands

INFLUENCIAS DE LA FAMILIA EN EL RENDIMIENTO ACADÉMICO
Un estudio en Canarias

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Abstract

In this paper we study the family variables affecting academic achievement within a Canary Island sample. Parents' level of education, parents' expectations about academic achievement, Socioeconomic Status (SES), family size, type of family and parents' control over the student's homework are used as predicting variables in a logistic regression for predicting which variables load in high academic achievement. These variables are incorporated into two different theoretical models: the social capital view of Coleman and the cultural capital view of Bourdieu. The results indicate that the variables having a leading role are parents' expectations, parents' education, SES and family size.

Keywords

Academic Achievement; Cultural Capital; Family; Logistic Regression; Social Capital.

Resumen

En este artículo estudiamos los efectos de las variables relacionadas con la familia en el rendimiento académico en una muestra de estudiantes de Canarias. A través de una regresión logística evaluamos el peso de las siguientes variables en el rendimiento académico: el nivel educativo de los padres, las expectativas de los padres sobre el rendimiento académico de sus hijos, el estatus socioeconómico, el tamaño de la familia, tipo de familia y prácticas de control familiar sobre el trabajo escolar. Estas variables son incorporadas a dos modelos teóricos diferentes: el de Coleman y el de Bourdieu. Los resultados indican que las variables que tienen un papel destacado son: las expectativas, el nivel educativo, el estatus socioeconómico de los padres y el tamaño de la familia.

Palabras Clave

Familia; Rendimiento Académico; Capital Social; Capital Cultural; Regresión Logística.

INTRODUCTION

Recent international studies, particularly PISA studies published in the years 2000, 2003, 2006 and 2009[1] have raised great interest in variables involved in student performance. Educational outcome, and more precisely academic achievement, has become a central issue at both social and institutional levels. Thus, the study of variables involved in academic achievement turns out to be a central question in educational policies of the European Union (EU). The PISA survey assesses academic achievement in the EU using different rankings that reveal asymmetrical academic output in Europe. This asymmetrical performance in academic output has given rise to lines of research which seek to determine which variables account for the different academic results in the EU. In Spain, several investigations have been carried out taking as a reference the PISA Report (Calero and Escardíbul 2007; Zinovyeva 2009; Ferrer, Valiente and Castel 2010; Calero, Choi and Waisgrais 2010). In this vein, the aim of this paper is to investigate these variables in the context of the Canary Islands.

The data presented in this paper was collected as part of a macro-research study running over a sample of students who finished compulsory secondary education[2] in the Canary Islands in the 2006-2007 academic year[3]. The data on achievement in the Canary Islands is disturbing. In 2007, the percentage of adolescents who did not continue their academic career after finishing secondary school was 36.9%, six points above the Spanish average and twice that of the rest of the EU (15.2%). With respect to the "proportion of students who study the level expected for their age" in the last year, the percentage reaches 49.2% in the Canary Islands in contrast to 57.4% for the whole Spanish territory (MEC 2009). In our view, these data are a clear indicator of the situation in the Canary Islands.

Apart from the wide variety of factors related to academic achievement, we are interested in those related to parent contribution. What family factors actually make academic achievement straightforward?[4] In this paper we deal with variables such as Socioeconomic

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[1] Other international evaluations complementary to the PISA report are the PIRLS reports, which evaluate the reading comprehension of 10 year-old children and the TIMSS report, which evaluates scientific and mathematic comprehension. In this study we focus on the results of the PISA report concentrating on the educational performance of 15 year olds, as well as our data.

[2] Education in Spain is compulsory until the age of 16, although students may remain in the system until the age of 18 or even later in exceptional circumstances.

[3] The Autonomous Community of the Canary Islands was not represented in Spain's data contribution to the PISA 2006 report. Data from Spain was accounted for through a simple sample of 20,000 students representing the different autonomous communities: Andalusia, Aragon, Asturias, Cantabria, Galicia, La Rioja, Navarra and the Basque Country. The PISA report for 2009 enhances data from Spain including the Canary Islands as part of an increased sample.

[4] Other lines of research focus on family effects on behavioral aspects at school such as school abandonment, retaking of courses, academic dropout, etc. (see McNeal 2001; Astone and McLanahan 1991; Fernández González and Rodríguez Pérez 2008).

status (SES), parents' level of education, family size, parents' expectations about academic achievement, parents' control over the student's homework, etc. and how the role of these variables is incorporated into two different theoretical models on academic success, namely, the social capital view (Coleman 2000) and the cultural capital view (Bourdieu 1977)[5].

In what follows, we present different variations on this theme, taking as a reference the empirical investigations carried out at both the international and the national level.

Family dimensions and their effects on academic outcomes can be traced back to different approaches such as those of Bempechat (1990); Fantuzzo, Davis and Ginsburg (1995); Keith and Keith (1993); Patrikakou (1996); and Castejón and Pérez (1998). More precisely, from the sixties onwards, some studies have focused on the relationship between the academic achievement of students and social disparity (Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld and York 1966; Jenks 1972; Bourdieu and Passeron 1977; Bowles and Gintis 1976; Bernstein 1986). A review of the research that relates academic achievement and socioeconomic origin can be found in Haveman and Wolfe (1995); Hauser, Warren, Huang and Carter (2000); Shavit and Blossfeld (1993); Erikson and Jonsson (1996); Carabaña (1999); Heath (2000) and Martínez (2011). The most important conclusion of these studies is that children who grow up in low-income families tend to handle difficult situations that have an impact on their academic achievement (OECD 2008). The influence of family income is more remarkable in the initial years of infancy than in the adolescent stage (Brooks-Gunn and Duncan 1997). Nonetheless, other studies suggest that this effect is not so strong once we control for other variables that correlate with family income such as parent education, cultural capital or the degree of support that parents give to their children (OECD 2008).

Parents' education is another important variable in academic achievement. This variable is very likely the one that has captured more attention in the research as a predictor of academic achievement. Together with family income and parents' occupation, parents' education is a central variable in social class structuring. Studies have shown that low-income parents have children who systematically obtain low scores on the PISA test, regardless of the country of origin inside the OECD (2008). More precisely, the PISA report published in 2007 (like prior PISA reports published in 2001 and 2004) concludes that the difference in academic achievement between families with a basic educational level and families with a university level is about 85 points. In Spain, this difference increased to 100 points in 2009 (MEC 2010).

In the same vein, studies performed outside the EU have shown the same results (Heyneman and Loxley 1983; Shavit and Blossfeld 1993; Breen and Jonsson 2005;

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[5] Boudon (1983) also developed an important explanatory model of social origin and academic performance. Although Coleman and Boudon represent different sociological perspectives, they have a common nucleus which is rational choice and individualistic methodology. On the other hand, Coleman and Bourdieu are linked by the use of different types of capital in their investigations. Both aspects allow us to contrast the data against the two different theoretical models, but with similar conceptual references.

Hampden-Thompson and Johnston 2006). That is to say, parents' education has an effect on children's educational level (Jimerson, Egeland and Teo 1999; Kohn 1963; Luster, Rhoades and Hass 1989).

Moreover, family size is another variable which has been found to have explanatory potential with respect to academic achievement. Most studies coincide that as the number of family members increases, children's academic results become worse (Guo and VanWey 1999; Downey 1995; Martínez 2002; Carabaña 2004; Calero 2006).

With respect to how the family views academic education, we focus on two important dimensions. First, the parents' educational expectations, and second, the parents' control over homework. In the case of parents' expectations, there seems to be wide consensus that expectations positively correlate with the academic career (Bonstead, Bruns and Hao 1998; Mella and Ortiz 1999; Jacobs and Harvey 2005). However, this is not the case with parents' behavior with respect to educational practice. Thus, there is some confusion about which practices actually increase the probability of academic achievement (Forquin 1985). Some studies point out that family commitment positively affects academic achievement (McNeal 2001). Teachers believe that parents' participation in schools provides a constructive benefit and promotes academic achievement. Other authors state that such involvement of parents in everyday school life has a negative effect on academic achievement (Horn and West 1992; Milne, Myers and Ginsburg 1986; Keith 1991). They explain this by means of the reactive hypothesis. Specifically, the fact that parents get involved in their children's academic life exerts a negative influence on their performance. Finally, other authors find no significant correlation between academic achievement and family commitment (Epstein 1991; Griffore and Bubolz 1986). McNeal (2001) concludes that family commitment affects attitudinal results but not cognitive ones.

Several studies conclude that both family educational behavior and the educational system may converge (Kohn 1963; Lahire 2007; Bourdieu 1987; Bernstein 1986 and Martín Criado 2000). Therefore, academic achievement is more bound to succeed when the family practice is based on a model of universal authority since this model takes the general normative and the idea of child self-control and autonomy as references. This model is found in both families with a high educational level and in families which converge with school values.

Hypothesis

Bourdieu (1977, 1987) and Coleman (1987, 2000) provide a framework to test the hypothesis on the influence of family variables affecting academic outcome.

Coleman defines social capital in terms of its functions as "[*the*] *value that those aspects of the social structure and the resources that could be used to attain their objectives have on the actors*" (1987). He distinguishes three kinds of social capital: obligations and expectations, information channels, and social norms (Coleman 2000). Social capital can be defined as a social structure scenario in which people play a role as an actor

pursuing certain aims. The screenplay would be the actions that the actors perform in order to achieve their objectives. However, as Coleman explains, these actions could be helpful for some actors but harmful for others. That is to say, certain levels of social capital counterbalance the impact of economic and cultural capital in parents. Social capital within the family is defined in terms of the relationship between parents and their children. These types of links inside the family must go hand in hand with the parents' human capital otherwise the human capital by itself, regardless of its quantitative values, would be irrelevant for the children's educational development. Together with this dynamic pattern of relationship within the family, a well-built relationship with community institutions is desirable in order to progress towards the academic career.

In contrast, Bourdieu (1977) proposes a sociological theory in which cultural capital is the key concept. This theory allows testing the influence of students' social background on academic achievement. Cultural capital condenses the idea of "*whatever form of cultural competence unequally distributed"* and is an instrument that permits us to transform wealth into symbolic values (Bourdieu 1977: 488). The high degree of academic achievement found within the upper classes and higher educational levels are the result of the extent to which the families can turn economic capital into cultural capital in order to improve the educational system. Bourdieu proposes that families of different social classes exhibit different forms of cultural capital which determine academic achievement. Parents cooperate with experience, and develop similar preferences and academic motivation. Inside different social groups, Bourdieu explains that the differences in performance are mediated by the correlation between the students' social position and his or her familiarity with cultural resources and information authorized by the school system. Middle-class students lack this familiarity (Bourdieu and Passeron 1977).

To sum up, Coleman views differences in academic achievement to be the result of family strategies which are independent of social background or origin, whereas Bourdieu explains these differences as part of the strategies associated with class position.

In order to test the two theoretical models, we hypothesize that in both theoretical accounts the family's economic capital is not important in itself to explain variations in academic achievement. For Bourdieu (1986), social classes are a combination of different levels of social, economic and cultural capital, with the latter being the major factor. Varying incomes in the family influence academic achievement due to the fact that the family transforms these incomes into cultural capital in one of three ways: embodied, objectified or institutionalized (Bourdieu 1987). In contrast, Coleman (2000) interprets financial capital (family incomes) as a component in the family environment which indirectly influences academic success or school dropout.

Our aim is to test the extent to which family variables have been demonstrated to predict academic achievement within the models of Coleman and Bourdieu, that is to say, to build a model which predicts academic success according to these variables.

In Bourdieu´s work, parents' education is a central variable to measure the influence of cultural capital on academic achievement. In Coleman's work, however, this variable does not have any explanatory role if parents have access to resources such as social

capital (e.g. parent involvement with school activities, networking with parents in the same school, parent-child discussion about school, etc.). In the case of type of family and family size, there is a wide range of research that considers family structure as a central variable in academic achievement. The majority of these studies conclude that non-intact families (one-parent families, deceased parents, living with relatives other than parents, etc.) run a higher risk of low achievement or academic failure (Astone and McLanahan 1991; Biblarz and Gottainer 2000; Amato 2001; Martínez García 2008). However, there are other studies (Shim, Felner and Shim 2000) which account for the neutralization of family structure and academic achievement when other variables are introduced into the model (Levitt and Dubner 2006; McNeal 2001). In Spain, Martín Criado (2000) concludes that non-intact families do not affect academic output when the families belong to a low social level. The same conclusion was drawn in the La Caixa Study (La Caixa 2009). In this study, the effect of family structure was not so high when controlling for variables such as household income or, in the case of separated families, the parents control over their children's academic life was taken into account. The main conclusion was that under equal economic conditions and parental dedication, the family structure did not explain the diversity of academic output.

According to Bourdieu, these variables are not so relevant, but in Coleman's model these variables are central to the social capital[6], and hence, to predictions on academic achievement. He proposes that a structural deficiency in the family (e.g. absence of one of the parents) implies a deficiency in the family's social capital and as such affects academic achievement negatively. In the case of family size, as the number of children increases in the family, the probability of academic achievement decreases.

As regards parents' expectations, both Bourdieu and Coleman assume that this variable has a significant impact. Coleman believes that parents' expectations are a central variable in social capital insofar as they neutralize the negative effects of parents' human capital (Coleman 2000). In Bourdieu, parents' expectations are part of cultural capital and determined by social position.

Finally, variables related to control over children's homework are important for Coleman (1987). The role of parents in children's schooling generates resources which have a positive influence on the children's behavior and performance at school. McNeal (2001) found a positive correlation between parents' control and children's achievement. However, this effect was found in the middle class. According to Bourdieu, control over children's homework is related to cultural capital. The problem is that different types of control have the same effect on academic achievement. Bourdieu believes that the best

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[6] Obviously the operationalization of social capital could take into account many variables, as in the case of cultural capital. We take into account data on participation gathered from responses to one of the questionnaires, involvement by the family in different social activities, as well as the cultural resources available in the home. However, our first statistical analysis showed that these variables were not significant and were therefore not selected for the logistic regression analysis.

type of control is the one allowed by the school which follows a universal authority model and which promotes students' self-control and self-autonomy. Bourdieu assumes that this promotes a model of family-school interdependency which is found among upper-middle class children (Lareau 1987).

In short, Bourdieu and Coleman emphasize different aspects of the same variables relating to family involvement at school. Our interest is in modeling these variables to test their predictive effect over academic achievement.

METHOD

Participants

The questionnaires were administered in over 39 private and public schools (61% public schools and 39% private schools) (Cabrera Rodríguez and Cabrera Montoya 2008). We recruited a total of 2,247 students aged 15 to 16 years old in the last year of compulsory secondary education in the Canary Islands. The sample is representative of 12.8% of all students in this educational level for 2006-2007. (See Table 1 for the sample descriptors)

The dependent variable used in this study was performance in mathematics, English and the Spanish language. In order to test the family variables, a battery of questionnaires was administered. We tested student habits and attitudes in the school, level of involvement in the school, family involvement and habits. The collected data were coordinated by the ICEC (Canary Island Institute for Educational Assessment and Quality) and formed part of PECCAN (Plan to Assess Schools in the Canary Islands), which measures a large set of variables related to the school context, academic results and educational process over children, teachers and parents.

Procedure and Measures

The information gathered was related to the family situation, schooling, achievement at school in the subjects of Spanish, English, and mathematics, and parents' control over homework.

Parent and family characteristics. We used the Canary Island Government standard SES as a measure of family income. This index was computed from different criteria such as parents' occupations, home ownership, and house size in square meters, among others.

Parents' education. We used the household level of education, taking the highest level when both parents were living with the teen and did not have the same educational level. The frequency data for parents' education showed that 44.1% of the families had a primary education, 30.3% had a secondary education, and 25.6% held a university degree.

Family size. The average family size was 2.39 (SD=0.86). The range was from 1 to 3 children in the family (excluding the informant).

Table 1.
Sample descriptors: age (mean, standard deviation and range), gender (N), academic year (%), parents' education (%), family size (mean of number of brothers or sisters), type of family (%) and parents' expectations (%)

	Mean	SD	Range
Age	15.83	0.78	15-16

	Male	Female	
Gender	1026	1168	

	Expected	Re-Taking	Re-taking (2y)
Academic Year	60%	28%	10%

	University	Secondary	Primary
Parents' Ed.	44.10%	30.30%	25.60%

	Mean	SD	Range
Family Size	2.39	0.86	01-mar

	Both Parents	Divorced	Widowed
Type of Family	63.60%	11.30%	2.40%

	University	Vocational Training	Secondary School
Parents' Expectation	61.90%	19.10%	11.80%

Type of family (living with parents, divorced parents, widower/widow). The family-type sample showed that 63.6% of the teens live with both parents, 11.3% belong to a divorced family headed by a male and 2.4% belong to widow-headed households.

Parents' expectations of academic achievement. This variable was measured with an ordinal variable asking parents "*How many school years do you expect your child to complete?*". The range for the answer had three discrete values: "vocational training", "secondary school" and "university degree". The data showed that approximately 61.9% of parents expected their children to earn a university degree, 19.1% expected their children to complete vocational training at secondary level, and 11.8% expected their children to earn a secondary school diploma.

Parent's behavior measures: Latent variables were collected in relation to the parents' autonomy vs. control over children's homework. We asked children to answer the following questions: "*My parents check if I have done my homework*", "*My parents let me organize my homework on my own*", etc.

Child Demographics. Two variables were used to denote the child's demographic characteristics: age and gender. The sample used in this study comprises children aged 15 to 16 years old (mean=15.83, SD=0.78), and includes approximately the same number of males (1026) and females (1168). As regards retaking a course, 60.8% of the children were attending the expected course, 28.5% retook one year and 10.8% retook two years. The majority of the children were studying at the same school.

We were interested in connecting the previous variables with an explanation for academic achievement, as well as assessing the relative importance of these variables in predicting achievement. To do so, we ran a logistic regression model. Our dependent variable was the average grade in Spanish, English and mathematics.

Results

Due to the nature of our predictors (categorical and continuous) and the dependent variable (categorical), we used a logistic regression model (LRM) to fit the data. The advantage of LRM over other multivariate analyses is that traditional assumptions on linearity, homoscedasticity and normality are not required. To perform the analysis, we used R Project software version 2.9.2 (http://cran.r-project.org). The fitted solution was verified by means of a bootstrap simulation to ensure that the model was rational, and that the retained variables were those that consistently explained the outcome variable. In order to avoid over-fitting data, we ran an analysis using the penalized maximum likelihood estimation. This procedure prevents large values for coefficients, which guarantees that no overestimation is reported in the final data. The model we presented was the appropriate solution.

The question we want to clarify is to what extent family variables predict academic achievement. As mentioned above, two theoretical models explain academic achievement on the basis of cultural and social capital theoretical proposals. At the same time, several studies have shown that these family variables exert an influence on adolescent achievement at school, but no data, at least in Spain, have shown the scope of this influence. A LRM can shed light on the relative magnitude of each variable attending to its load within the model.

Our response variable was created from the average grades in mathematics, English and Spanish. We divided the sample into a dummy variable (0,1) by using a percentile criterion in which we consider that low academic achievement was located below percentile 33 (0), whereas high academic achievement was over percentile 66 (1). Thus, we generated a model intended to predict high achievement.

We checked the partial effects of the predictors through an ANOVA function applied to the LRM function. Variable reliability was evaluated by means of the chi-squared sta-

tistic test. Autonomy-control [$\chi^2(2) = 1.92$ p= .16] and type of family [$\chi^2(2) = 3.79$ p= .28] did not show any significant effect as predictors. SES showed a marginal effect (p=.08). Due to this marginal effect, we decided to preserve this predictor which finally showed a significant effect in the LRM model. The rest of the variables showed a significant effect [$p < .001$] (See table 2).

Table 2.
Partial effect over the predictors

Factor	Chi-Squared	df	p.
Parent Education	24.60	2	**
Autonomy vs. Control	1.92	1	.16
Family Size	10.79	1	**
SES	2.91	1	.08
Expectations	33.23	3	**
Type of Family	3.79	3	.28

** $p < .001$. Multiple R^2 27% F(8,832)=40.01, p< .001.

The goodness of fit of the model was assessed by different statistics, the most relevant being Model L.R., C, D_{xy} and R^2 (See Table 3).

Table 3.
Statistics for the goodness of fit

Statistic	value
Model L.R.	212.18
C	.839
Somer's Dxy	.678
R2	.422

Note. *Model L.R.* refers to the differences between null deviance and residual deviance. *C* is a measure of concordance between the predicted probability and the observed response. Values close to 1 indicate that model has real predictive capacity. *Somer's Dxy* is a rank correlation between predicted probabilities and observed responses (0 randomness predictions, 1 perfect predictions). *R2* is a generalized index calculated from log-likelihood ratio statistics and provides some indication of the predictive strength of the model.

The final solution showed that *Parents' education* was the variable that best predicted high achievement. When one of the parents held a university degree, the probability of academic success increased to 7.4. This odds value decreases as the parents' education decreases. When one of the parents holds a secondary school diploma, the odds decrease to 2.53.

In relation to *family expectations*, the data showed that the probability of having a high achievement child increased by 2.37 when parents expected the child to earn a university degree. When parents' expect the child to only finish secondary school or vocational training at secondary level, the prediction changes to a low achievement probability which increases to .28 and .65, respectively. Thus, it seems that when parents expect that the child will go further in his or her academic career, the probability of success increases. *Family size* showed that the larger the number of children in a family, the higher the probability of low achievement, which increases by .64. Finally the variable *SES* as a predictor showed that the higher the economic status, the higher the probability of having a high achievement child, which increases by 1.0. (See Table 4 and Figure 1).

Table 4.
Summary of predictors for the LRM

| Predictors	Coefficient	SE	Wald Z	p
Intercept	-1.56926	0.829	-1.89	0.0585
ParentEducation=Secondary	0.93014	0.275	3.38	***
ParentEducation=University	2.00536	0.424	4.72	***
Autonomy_Control=Control	-0.29246	0.212	-1.38	0.1680
Family_Size	-0.43650	0.128	-3.40	***
Expectations= vocational training at secondary level	-1.24387	0.561	-2.21	*
Expectations= vocational training at university level	-0.43027	0.434	-0.99	0.3222
Expectations=University degree	0.86642	0.349	2.48	**
SES	0.00367	0.001	2.30	*

Note. * p < .05; ** p < .01 and *** p < .001. In order to check the effects found in the LRM, we ran a multiple regression model (MRM) with the same variables using the same outcome variable on average academic achievement. The data obtained confirmed that these variables are reliable in predicting academic achievement. (See Table 5)

Table 5.
Summary of predictors for the MRM

Factor	t value	p.
Parent Education secondary	3.42	***
Parent Education university	6.306	***
Autonomy vs. Control	-1.91	.056
Family Size	-4.167	***
Expectation vocational training at secondary level	-3.326	***
Expectation vocational training at university level	-.594	n.s.
Expectation University Degree	2.706	**
SES	2.506	*

Note. * p < .05; ** p < .01 and *** p < .001.

Figure 1.
Partial effects with the confidence interval of the predictors for the log odds ratio of achievement
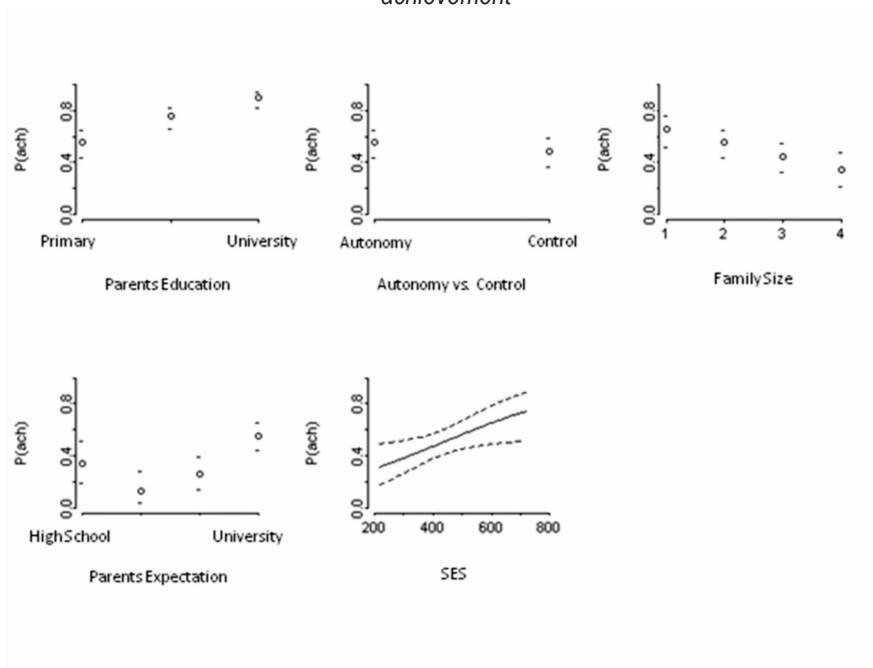
The data collected draws a picture of high academic achievement, indicating that the variables which play a leading role are parents' expectations, parents' education, SES and family size. These data reinforce the results obtained by PISA and other Spanish and international investigations, but fundamentally they reinforce the sociological thesis of Coleman and Bourdieu's models.

Parents' education and parents' expectations showed the highest values in predicting academic achievement. These data have already been reported in PISA studies (2000, 2003 and 2006). The last PIRLS report (2006) showed that the higher the educational level of parents, the higher the educational performance of their children. However, the investigations of Calero, Choi and Waisgrais (2009) found that parents' educational level did not have a significant effect on the risks of academic failure, but as they themselves have admitted, it is possible that its effect is absorbed by other co-related variables such as socio-professional category. We tend to agree more with Calero and Escardibul (2007), who concluded that it is the expectation of the parents which positively affects academic results.

For Bourdieu (1987), both variables are part of the family's cultural capital and have a direct effect on academic achievement. However, the higher value obtained for parents' expectations reinforces Coleman theory on the importance of social capital and its non-dependency over either financial capital or human capital (Coleman 2000).

The fact that parents' expectations in themselves play a crucial role in predicting academic achievement suggests that parents with low human capital (academic level) and high expectations regarding their children's academic achievement have a positive influence on school productivity. However, it should be taken into account that it is not clear which specific combination of these variables guarantees an accurate prediction about academic achievement. This would require further research on modeling the interaction between parents' education and parents' expectations. Since we have used an additive model in this study, this question remains unanswered so far.

We found that family size has an important impact on predicting high academic achievement as has also been demonstrated by Martinez (2002), Carabaña (2004) and Calero (2006). Our data showed that the number of family members increases as the probability of having high academic achievement decreases. This result is in line with Coleman's model. If social capital is generated by the level of parent-child relationship, this relationship is expected to be equally distributed among the children in numerous families. However, we should not ignore the fertility studies carried out in Spain which show a higher proportion of children in families in which both parents have a lower educational level (Bernardi and Requena 2003).

The effect of SES is assumed in both models. However, the relative weight of this variable on the data we have presented seems to suggest that there are other variables above and beyond economic factors such as cultural capital (Bourdieu and Passeron 1979) and social capital (Coleman 2000).

The measures of Autonomy vs. Control do not yield a reliable effect in predicting academic achievement. As we pointed out previously, the studies that have been carried

out on this aspect present confusing evidence about the effect of parent control over children's homework.

Surprisingly, however, the variable type of family does not show a reliable effect either. As we said before, there is a wide range of studies in which non-intact families are shown to have a negative effect on children's academic paths. In this vein, Coleman (2000) maintains that the type of family which the child belongs to is an essential factor in the family's social capital. However, there are other studies which agree with the relative effect of type of family, and which further consider this variable as a non-relevant factor in academic achievement (Bourdieu).

We were interested in analyzing the effect that different variables linking family and academic achievement have on teenage students from the Canary Islands. We conclude that Bourdieu´s model fits our data better and could explain the results obtained in a more straightforward manner since the influence of social capital on our data seems to be less conclusive. Neither the type of family nor parents' control are reliable variables in predicting academic achievement. The role of family size is important in predicting academic achievement provided that this variable is related to the parents' educational level as we pointed out above. The effect of this variable, which is traditionally related to social capital, is not homogeneously distributed.

As regards parents' expectations, the effect found for this variable seems to point out that the family's social origin can influence, but does not decide, children's academic achievement. Therefore, given the predictive power of parents' expectations, this aspect deserves special attention in future research.

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