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Mitigating the political participation gap from the school: the roles of civic knowledge and classroom climate

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Empirical evidence has consistently shown that political participation is positively related with socioeconomic background. Furthermore, recent research suggests that children who come from low status families are already less willing to get politically involved. The present paper aims to analyze the possible impact that schools can have in mitigating the effect of parents' socioeconomic status on students' expected electoral participation, focusing on two variables: civic knowledge and classroom climate. The analyses are based on a series of multilevel models using Chilean data of the International Civic and Citizenship Education Study 2009. The results support the influence of students' socioeconomic background on expected electoral participation. Furthermore, civic knowledge and classroom climate show a positive and similar influence on students' expected participation. However, classroom climate appears less affected by students' background than civic knowledge, opening the discussion about which strategy should be emphasized when aiming to mitigate the political participation gap.

Keywords: citizenship; civic knowledge; political participation; social background; classroom climate

Introduction

Participation is one of the cornerstones of any democratic system. It is the main mechanism that ensures that individuals not only communicate their interests and needs but also pressure governments to act in response (Schlozman, Verba, and Brady 1999). However, the quality and quantity of political participation nowadays is certainly a matter of concern, as lower rates of political participation, particularly in younger cohorts, appear to be a global phenomenon (Blais and Rubenson 2013). In addition, the empirical evidence consistently supports the thesis that lower political participation is related to social resources, in that those with higher income, education, and political knowledge are overrepresented in terms of political participation and influence (Solt 2008). Therefore, the association between political participation and personal resources becomes one of the main threats to the social contract and the legitimacy of the democratic system itself, as a political participation gap could weaken the government's representativeness and its responsiveness to diverse groups and communities (Levinson 2010).

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When looking for possible causes regarding the lower participation rates and the political inequality gap, schools and early political socialization emerge as the usual suspects. The assumption behind the association between political socialization and participation is that a good citizen does not necessarily appears spontaneously, but rather, early socialization within the family, and particularly at school, should aim to provide the tools that allow future citizens to become successfully involved in political life. The focus on the school's role was primarily related to the transmission of civic knowledge, based on the assumption that knowledge of how the political system works is relevant for successful citizenship (Levinson 2010; Owen, Soule, and Chalif 2011; Quintelier 2010; Torney-Purta et al. 2001; Wilkenfeld 2009). In addition, however, a second and more recent line of research has highlighted not only 'what' is transmitted by the schools (knowledge) but also 'how' this is transmitted, arguing that exposure to a democratic environment in the school can be as important (or even more) as civic knowledge. In this tradition, some studies have focused on the role of the classroom climate as an environment that could have an impact on a series of students' political outcomes (Alivernini and Manganelli 2011; Campbell 2007, 2008; Ichilov 2003, 2007; Martens and Gainous 2012; Quintelier and Hooghe 2012; Solhaug 2006; Torney-Purta 2010). So far, most of the studies have analyzed the roles of civic knowledge and classroom climate on political participation separately, which is the gap that this paper aims to bridge. For this, the present research focuses on expected electoral participation as the main object of study, since electoral participation is the traditional way of getting involved in political life and it is closely associated to the school's objective in the area of political socialization. Within this framework, the first aim of the present study is to assess the roles of both civic knowledge and democratic climate on students' expected electoral participation: Is it the knowledge aspect or the democratic classroom climate that has the greater impact on expected participation? Is there an interaction between the two factors?

A second objective of the present research is to assess whether civic knowledge and classroom climate can mitigate the association between low social background and lower expected electoral participation levels. Recent evidence suggests that the link between resources and participation, which is broadly documented in the adult population, is already present in school age (Hooghe and Dassonneville 2013), a situation that has been referred to as the intergenerational transmission of political inequality (Schlozman et al. 2012). There is no much evidence available regarding which variables could mitigate this link, which is certainly relevant not only for informing teaching practices but also when thinking of the democratic lives of future generations. In order to advance the knowledge in this field, this paper analyzes the role of students' socioeconomic and cultural background characteristics on expected participation, as well as to what extent civic knowledge and/or school climate can mediate background influences.

Besides the consideration of individual background characteristics, a third objective is to assess the role of school characteristics on expected participation: Are students from schools with higher socioeconomic indicators more willing to be politically involved? The impact of school level characteristics is the reason for focusing the analysis in the particular case of Chile, due to its high indicators of economic inequality and school socioeconomic segregation, which are detailed in the next section.

Socioeconomic background and participation

Political participation has proved to be consistently and highly associated with individuals' socioeconomic background variables, such as income, social status, and education (Beeghley 1986; Brady, Verba, and Schlozman 1995; Caínzos and Voces 2010; Dalton 1988; Han 2009; Marien, Hooghe, and Quintelier 2010; Schlozman et al. 2012; Schlozman, Verba, and Brady 2012; Solt 2010; Verba, Schlozman, and Brady 1995). Citizens in the highest income quintile are five times more likely to participate in political activities than those in the lowest quintile (Galston 2007), and individuals with similar social statuses present similar political participation levels (Nie, Powell, and Prewitt 1969). Of the different status factors associated with inequality in participation, the educational level has been the one that is most consistently linked to participation rates (Brady, Verba, and Schlozman 1995; Owen, Soule, and Chalif 2011). As Converse (1972, 324) pointed out, 'education is everywhere the universal solvent, and the relationship is always in the same direction.' Having a high level of education is associated not only with resources such as income and time but also with a higher capacity for searching for information and gaining political knowledge (Owen, Soule, and Chalif 2011; Owen, Soule and Nairne 2010; Schlozman, Verba, and Brady 2012). Such consistent findings have also been taken into account from an intergenerational perspective, which means that parents' advantages in political terms would be passed from parents to their offspring (Burns, Schlozman, and Verba 1997, 2001; Schlozman, Verba, and Brady 2012).

Although the main focus of this paper is on the influence of civic knowledge and classroom climate on expected electoral participation, social background must be taken into account in order to reach a more accurate estimation of the effects of both knowledge and climate on expected participation. Particularly in the case of civic knowledge, there is much evidence to support that students' performance in this area is highly correlated with socioeconomic background, as occurs with other standardized achievement tests (Hattie 2009). The evidence is not as conclusive in the case of classroom climate (Campbell 2008), which is actually one of the main motives for the contrast with civic knowledge intended by this study: if both knowledge and climate have a similar effect on participation, but climate is less affected by social background, such a finding would certainly have an impact on the selection of strategies for fostering students' political involvement.

The relevance of students' social backgrounds as the backdrop for analyzing associations among knowledge, climate, and participation is the main reason for choosing Chile as a case study. Chile has one of the highest indexes economic inequality worldwide, a situation that has been associated with the neoliberal policies and adjustment programs implemented during the dictatorship period (1973–1989). However, the socioeconomic polarization has remained relatively constant during the following democratic governments as well. The large economic differences that exist in Chile have certainly impacted the educational system, which exhibits a high degree of economic segregation (Valenzuela, Bellei, and de los Ríos 2014) and a strong association between social background and educational performance (Mizala, Romaguera, and Ostoić 2004a, 2004b; Mizala and Torche 2012; Treviño, Donoso, and Bonhomme 2009). Such segregation has been associated with two factors. First, during the civic–military dictatorship (1973–1989), the public school system began a decentralization process of transferring its management to local governments (Mizala and Torche 2012), meaning that educational resources began to depend on the capacities and resources of local

bodies. As a result, the poorer sectors had fewer resources for education. Second, besides public and private administration, a third system was created – called the voucher system – with the objective of increasing competitiveness among schools. Under this system, each student is assigned a voucher that is claimed by the school he or she attends so that attracting more students means receiving extra funds. This reform resulted in a migration of students from public to voucher schools. Before the reform, 80% of students were enrolled in public schools; this figure dropped to 37% in 2009, further increasing the economic segregation of schools as those with lower status remained in the public schools (Mizala and Torche 2012). This scenario provides the elements of a methodological design that combines the individual and school-level characteristics associated with socio-economic background in the study of political participation.

Civic knowledge

Political knowledge refers to skills and information about the political system, influencing how citizens perceive, store, and utilize new information that can be relevant in making political decisions (Owen, Soule, and Chalif 2011). Such knowledge has been associated with the concept of political sophistication, enabling a more complex understanding of multiple arguments and how they are interrelated (Gomez and Wilson 2001). However, there are different perspectives regarding whether political knowledge has an impact on effective participation. Although authors such as McAllister (1998) have argued against this link, recent empirical evidence actually supports it (Cho and McLeod 2007; Owen, Soule, and Chalif 2011; Wilkenfeld 2009), suggesting that political participation requires certain ‘knowledge of’ and can be enhanced by ‘knowledge about’: when individuals acquire a contextual knowledge they are more comfortable participating (Cho and McLeod 2007, 224).

Even though political knowledge is acquired throughout life, their bases are formed through political socialization at school (Geboers et al. 2013). Civic education aims at providing students with resources to participate in the future (Quintelier 2010), especially through the acquisition of civic knowledge and skills. To this regard, several studies have focused on the relationship between civic knowledge and political participation in young populations (Galston 2001, 2004; Isac et al. 2014; McAllister 1998; Owen, Soule, and Chalif 2011; Quintelier 2010; Torney-Purta et al. 2001), many of them using data from the Civic Education Study (CIVED) 1999 and the International Civic and Citizenship Education study (ICCS) 2009. In general, the higher the civic knowledge’s scores, the more likely the students are to participate politically in the future (i.e., vote in elections) (Isac et al. 2014; Torney-Purta et al. 2001; Wilkenfeld 2009). At individual level, the tendency to participate is mostly related to students’ individual status characteristics, whereas school’s characteristics have shown little influence (Isac et al. 2014).

Open classroom climate

The classroom constitutes an environment in which students spend a great part of their time, becoming a key setting for the development of beliefs, abilities and attitudes toward an active citizenship (Korkmaz and Gümüşeli 2013; McAvoy and Hess 2013; Narvaez 2010). Several researchers have highlighted the crucial role of schools and classroom environment in the acquisition of civic knowledge and skills, which are assumed to be part of the learning process and influence students’ future political participation (Alivernini and Manganello 2011; Campbell 2008; Ichilov 2003, 2007;

Solhaug 2006; Torney-Purta 2010). Students' interactions with their peers and teachers provide opportunities to put into practice abilities related to democratic life, such as dealing with divergent ideas and participating in decision-making processes (Korkmaz and Gümüşeli 2013). Moreover, as Campbell (2008) has argued, rather than the quantity of civics instruction, what matters is its quality, which is why the nature of the discussion about politics is crucial.

The studies developed by Campbell (2007, 2008) are the initial reference for the approach to classroom climate in the present research. Following Campbell's (2008) definition, an open classroom climate is one that promotes a respectful, open, and free exchange of ideas, which has an effect on civic knowledge and a series of political outcomes. Regarding the link between climate and civic knowledge, on the one hand, the evidence supports that an open classroom climate is related to student acquiring a higher level of knowledge about civic issues and the political system (Alivernini and Manganelli 2011; Blankenship 1990; Campbell 2007, 2008; Homana and Barber 2006; Ichilov 2003, 2007; Martens and Gainous 2012; Torney-Purta 2010). On the other hand, because political discussion allows the development of civic skills and engagement habits, an open climate for discussing political and social issues increases the likelihood that students will visualize themselves as informed voters (Campbell 2008). Furthermore, political discussion within the classroom can enhance students' openness toward politics (Blankenship 1990; Claes, Hooghe, and Marien 2012; Hahn and Tocci 1990) and increase their confidence in their political efficacy within the system (Blankenship 1990; Hahn and Tocci 1990; Martens and Gainous 2012). Recent evidence from the ICCS study provided by Hooghe and Dassonneville (2011) suggests similar results.

Conceptual model and hypotheses

Based on the arguments presented above, the conceptual model and corresponding hypotheses are presented in Figure 1, where it is possible to distinguish the two levels of analysis: the school and the individual. At the individual level, the first hypothesis proposes a positive association between socioeconomic background and expected political participation. Second, the model aims to test and compare the influence of civic knowledge and classroom climate on expected participation, both with an expected positive influence. The location of knowledge and climate as endogenous in the model (i.e., are regressed and predictors at the same time) allows the testing of a third and central hypothesis of this research, namely their mediator role of the link between background and participation, that is, their potential to mitigate such a positive association. The fourth hypothesis is that classroom climate is also expected to influence civic knowledge.

At school level, the model again depicts expected participation as a dependent variable (the circle frame which follows the conventions for representing random effects as latent variables in multilevel models). In this second level, the fifth hypothesis suggests a positive association between school economic characteristics (among them, school administration) on average and expected participation. Finally, the sixth hypothesis refers to the positive relationship between classroom climate and participation, but now taking climate as an aggregate variable. The measurement of climate as individual and school variables is related to some technical issues, which are discussed in the next section.

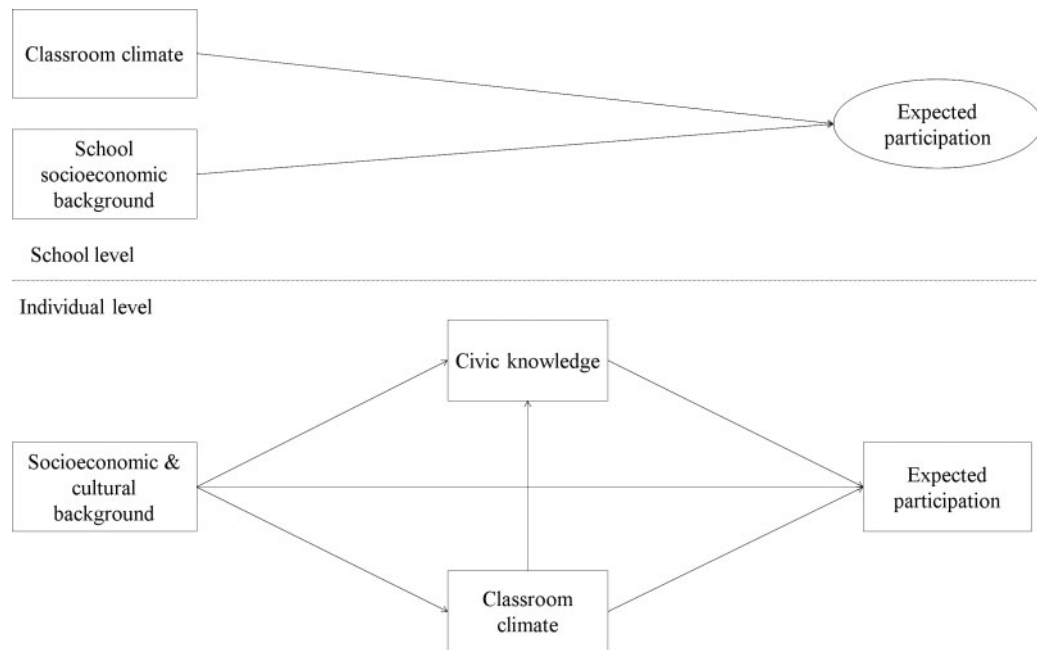


Figure 1. Conceptual model of students' expected political participation.

Data, variables, and methods

Data and variables

The data correspond to the ICCS study, implemented by the International Association for the Evaluation of the Educational Achievement (IEA). The ICCS study was carried out in 2009, with a sample of more than 140,000 eighth-grade students, 62,000 teachers, and 5300 principals, all from 38 countries (Cohen and Chaffee 2012). The present study analyzed Chilean data, comprising a total of 5688 students and 177 schools.

The dependent variable of this study corresponds to the student’s expected electoral participation in the future. It was obtained by the Item Response Theory (IRT) weighted least squares scores of three items regarding electoral participation, as calculated in the original data-set (Brese et al. 2011). Details of the scale are presented in Table 1.

Table 2 shows the independent variables at the individual level. The civic knowledge variable is obtained from a 79-item test, wherein the items were clustered into seven subsets, which at the same time were distributed in seven forms. Each student answered one of these forms, each including three of the subsets. Because none of the students completes the whole test, the individual scores are estimated as plausible values, five for each student. The variability among these values encapsulates the uncertainty that is inherent in the scale estimation process. The results of these tests are delivered as IRT scores, where the final score is a weighted average of the five dimensions on a single scale of civic knowledge, with an international average set at 500 points and a standard deviation of 100.

The open classroom climate corresponds to the students’ perceptions of openness to discussion on political and social issues within the classroom. The scores are obtained by the IRT estimation for the seven items described in Table 2. The measurement of this variable requires some additional specifications in order to disentangle individual effects from group effects, as climate as a concept corresponds to a context variable that, in this case, is measured from individual-level indicators. Recent publications have used it either as an aggregate measure (Hooghe and Dassonneville 2013) or only as an individual perceptual measure complemented by teachers’ responses on a context level (Quintelier and Hooghe 2012). However, the proposal for measuring climate in the present study is in line with Campbell’s (2008) suggestion of a strict estimation of the individual score, yet instead of taking the residuals from the group mean and then adding the group average as a second-level variable in a multilevel framework, the variable here is centered to the

Table 1. Dependent variable: expected electoral participation.

Dimension	Items	ICCS	
		Mean	SD
When you are an adult, what do you think you will do? Response:	(1) Vote in local elections (2) Vote in national elections (3) Get information about candidates before voting in an election	50	10
(1) I will certainly not do this (2) I will probably not do this (3) I will probably do this (4) I will certainly do this			

Table 2. Independent variables (level 1).

Item	Response	Mean/%	SD
Civic Knowledge Scale ^a		483	3.5
IRT plausible values			
Openness of classroom climate	(1) Never		
When discussing political and social issues	(2) Rarely		
during regular lessons, how often do the	(3) Sometimes		
following things happen?	(4) Often		
(1) Students are able to disagree openly with		3.1	0.92
their teachers			
(2) Teachers encourage students to make up		2.9	0.88
their own minds			
(3) Teachers encourage students to express		3.2	0.87
their opinions			
(4) Students bring up current political events		3.4	0.81
for discussion in class			
(5) Students express opinions in class even		2.2	0.92
when their opinions are different from most			
of the other students			
(6) Teachers encourage students to discuss the		3.2	0.89
issues with people having different			
opinions			
(7) Teachers present several sides of the		2.7	0.98
issues when explaining them in class			
<i>Family education^b</i>			
What is the highest level of education	(1) Complete college or	22.45(%)	
completed by your male or female	postgraduate		
guardian?	(0) Others:		
	• Technical complete	16.35(%)	
	• Secondary complete	43.41(%)	
	• 8° Grade	14.88(%)	
	• 6° Grade	1.68(%)	
	• Not finished 6° grade	1.23(%)	
<i>Parents' occupational status</i>	16 Lowest to 90 Highest	44.69	17.13
Highest occupational status of parents	occupational status		
based on ISCO 88 codes			
<i>Mean of parents' political interest</i>	(1) Not interested at all	2.4	0.78
How interested are your parent(s) in	(2) Not very interested		
political and social issues	(3) Quite interested		
	(4) Very interested		
<i>Home literacy (number of books at home)</i>	(1) 0–10	14.37(%)	
Approximately, how many books are at	(2) 11–100	62.74(%)	
your home?	(3) 101–200	13.71(%)	
	(4) More than 200 books	9.18(%)	
Student sex	(1) Girls	52(%)	
	(0) Boys		

^aCivic Knowledge Scale was calculated using the complex design provided by the IEA in the Stata Complex Survey Module.^bUse the higher educational level of both parents, dummy coded.

Table 3. Independent variables (level 2).

			ICCS	
	Item	Response	Mean (%)	SD
School administration	What is the administration of your school?	• Public (reference)	45.4	
		• Voucher	40.9	
		• Private	13.7	
Family education aggregated	% of parents with university education	(0) Schools with less than 22%	50	
		(1) Schools with more than 22%	50	
Mean classroom climate	School average of the openness of classroom climate battery		52.35	3.89

group mean during the multilevel estimation for the individual parameters (Paccagnella 2006), whereas the aggregate measure is used for the school level. Given the sampling scheme, only one class was selected per school; therefore, it is not possible to distinguish between school and classroom climate.

Two sets of variables for students' socioeconomic background can be identified: economic status and cultural capital. Within the economic group, the family educational level is measured as a dummy variable that identifies students with at least one parent with a university education, whereas parents' occupational status reflects the highest status of parents based on occupational ISCO 88 (International Standard Classification of Occupation) codes. Cultural capital background is represented by the average of parents' political interest and the number of books in each household. Finally, students' sex is included as a control variable.

Table 3 shows the independent variables related to school level. There are three types of schools in Chile's educational system, based on the type of school administration (public, voucher, and private). Aggregated family education is a dummy variable that identifies schools in the highest 50th percentile in terms of proportion of parents who completed university education, where the cut-off point (median) was 22%. The average of students' perceptions of an open classroom climate was used as a measure of the classroom climate.

Methods and software

The complex ICCS survey design implied the inclusion of specific weights within and between estimations (Brese et al. 2011). The Stata module for complex survey was used for the descriptive analysis, whereas the model's estimation was performed in a multilevel structural equation framework, using Mplus 7.11 software (Muthén and Muthén 1998), through the Mplus Automation R package (Hallquist and Wiley 2013).

Results

In order to illustrate the relationships among the main variables, the analyses started with some descriptive estimations. Figures 2 and 3 show civic knowledge scores in relation to

economic background variables: parents' educational level and school administration, respectively. As observed, students with highly educated parents scored, on average, 71 points higher on the civic knowledge test; school administration also impacted the test, in accordance with the hypothesis. This last result is related to previous evidence regarding the Chilean school administration system and its influence on academic achievement (Mizala and Torche 2012). It is important to highlight that only about 10% of students in Chile attend private schools; therefore, school achievement is not only highly related to the type of education for which parents are able to pay but it is also a privilege of a minority.

Regarding expected electoral participation in relation to both civic knowledge and classroom climate, Figures 4 and 5 depict the corresponding bivariate associations. Both knowledge ($r = 0.19$; $p < 0.001$) and climate ($r = 0.17$; $p < 0.001$) appear to affect expectations to participate in elections during adult life, in line with the research hypotheses.

From the preliminary descriptive results, there are already some indications that economic background, classroom climate, and civic knowledge influence expected participation. In order to establish how these variables, together, impact participation levels, it is necessary to move on to the model's estimation, considering that students are nested in schools, which can be better approached in a multilevel framework.

The multilevel estimation starts with the analysis of open classroom climate and civic knowledge as dependent variables, which will be used in a second step as predictors of expected electoral participation. The first element to take into account is the intraclass correlation (i.e., the amount of variance that is related to the level 2 units (schools), which in the case of school climate raises up to 12.4%, whereas for civic knowledge reaches 42.5%). Therefore, it is possible to say that belonging to a particular school has more impact on students' civic knowledge than on their perceptions of classroom climate. Such a high value for civic knowledge is not surprising, given that in Chile, student

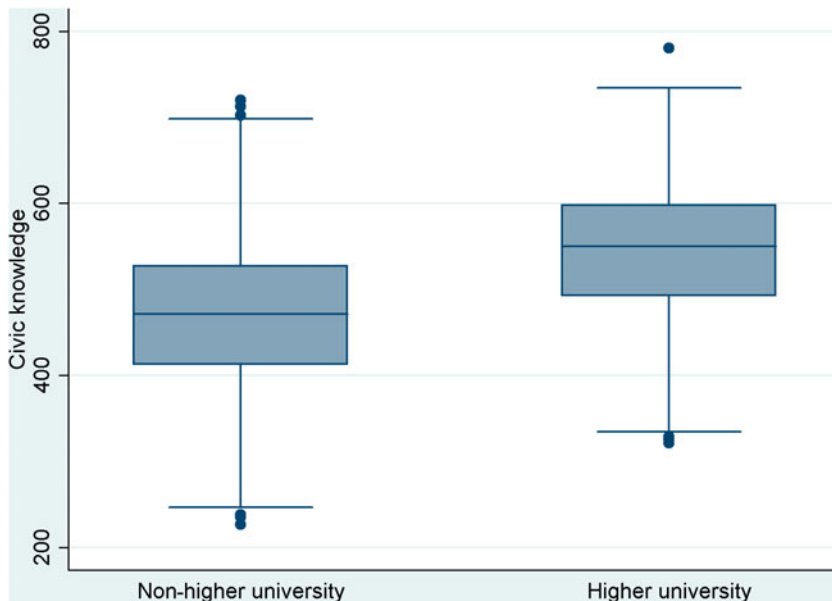


Figure 2. Civic knowledge scale according to parents' educational level.

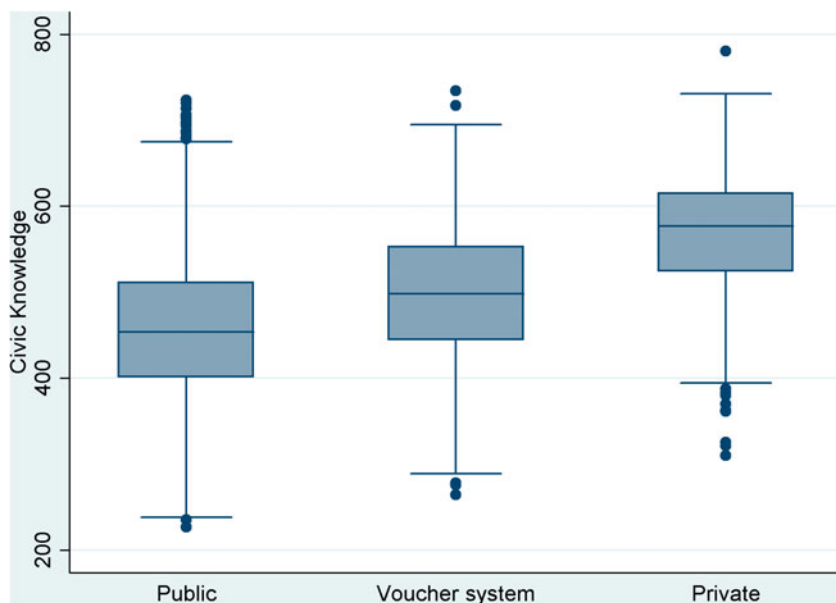


Figure 3. Civic knowledge scale according to school administration.

achievement in general is largely influenced by the school, which is associated with the high degree of socioeconomic segregation of the educational system (Mizala and Torche 2012).

Table 4 shows the results of the estimation of the classroom climate and civic knowledge models. Attending first to classroom climate, Model 1 includes variables related

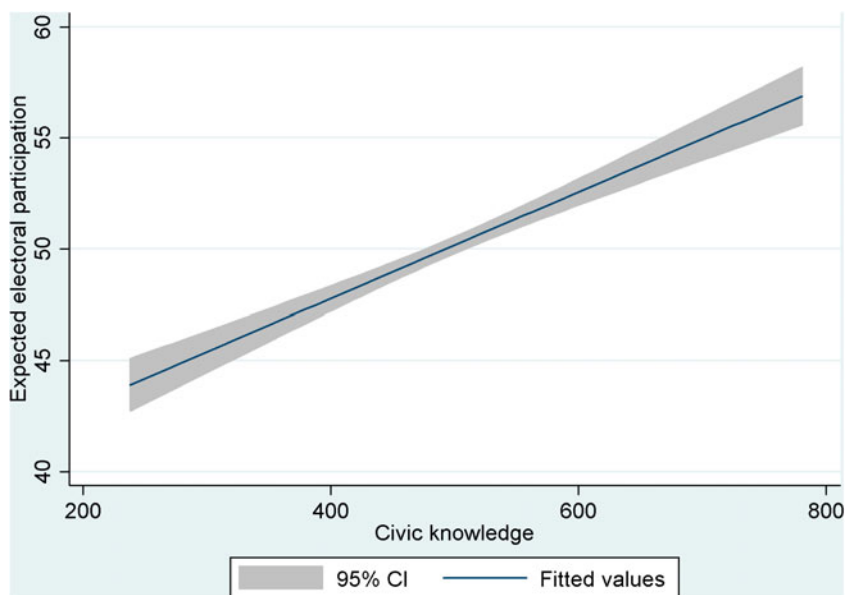


Figure 4. Civic knowledge and expected electoral participation.

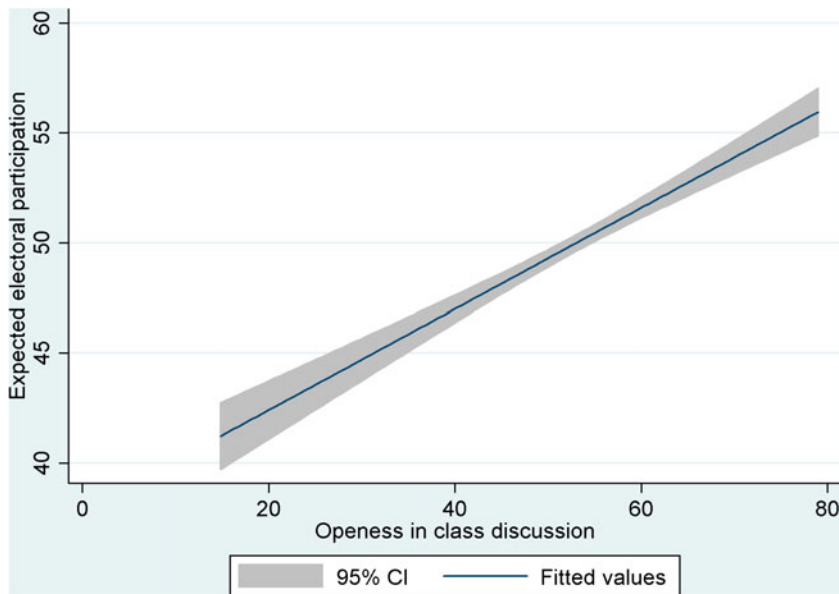


Figure 5. Classroom climate and expected electoral participation.

to social background and gender. Gender appears here as the only significant predictor, which means that on average, girls perceive a better classroom climate than boys do. Model 2 adds cultural capital indicators, wherein parents' political interest and the number of books at home impact an open classroom climate perception. Regarding school level variables (Model 3), in terms of school administration the voucher schools, on average, reflect a better perception of school climate when compared to public schools, whereas the proportion of parents with university education does not appear to have an influence on classroom climate.

The estimation for the civic knowledge scores follows the same rationale as the models for classroom climate perception. The first aim is to test the hypothesis regarding the influence of social background and cultural capital variables (see Model 4). As expected, and in contrast to the previous climate models, most of the social background variables, such as parents' education and occupational status, have a significant effect on students' civic knowledge. In contrast to the results of large-scale achievement assessments (e.g., PISA) in Chile, girls appear better off in civic knowledge scores. With regard to cultural capital variables introduced in Model 5, both parents' political interest and the number of books at home show significant effects. Still, it is worth noting that, so far, the models are able to explain only 9% of the individual level variance.

Model 6 includes open classroom climate as an endogenous predictor (i.e., regressed on the individual and school-level variables, as in Model 3), raising the explained variance to 12% and supporting the hypothesis related to the influence of climate on civic knowledge, in line with Campbell's (2008) previous findings. In fact, when analyzing standardized coefficients, this variable has the highest effect at the individual level ($b = 0.17$, $t = 10.93$ $p < 0.01$), outweighing both social background and cultural capital predictors. Model 7 adds school-level variables, where it is possible to observe that private schools, on average, score 35 points higher in civic knowledge scores compared

Table 4. Multilevel models of classroom climate and civic knowledge.

	Classroom climate			Civic knowledge			
	1	2	3	4	5	6	7
<i>Level 1</i>							
Parents university education	0.10 (0.22)	−0.28 (−0.61)	−0.38 (−0.79)	16.99** (5.36)	14.47** (4.50)	14.95** (4.67)	11.31** (3.57)
Parents occupational status	0.00 (0.29)	−0.01 (−0.54)	−0.01 (−1.15)	0.72** (9.14)	0.67** (8.60)	0.69** (8.67)	0.59** (7.65)
Girl	3.01** (11.50)	2.95** (11.32)	2.92** (11.31)	7.77** (3.83)	7.79** (3.87)	4.58* (2.26)	4.50* (2.25)
Home literacy		0.32* (2.17)	0.29* (1.99)		4.75** (5.03)	4.49** (4.79)	4.16** (4.54)
Parents' political interest		1.04** (5.40)	1.04** (5.40)		3.31** (2.66)	2.17 (1.76)	2.14 (1.73)
Climate						1.12** (10.42)	1.06** (9.91)
<i>Level 2</i>							
School university education			1.52* (2.00)				41.51** (4.90)
Private school			−0.15 (−0.13)				35.32** (3.16)
Voucher school			1.81** (2.67)				8.45 (1.32)
Mean climate							3.87** (5.68)
Intercept	50.63	47.69	46.96	454.73	440.00	385.96	226.84
Variance level 1	87.16	86.42	86.42	4077.95	4052.45	3956.17	3950.22
Variance level 2	11.77	11.23	9.98	1992.58	1845.40	1708.47	766.98
N Level 1	4707.00	4707.00	4707.00	4707.00	4707.00	4707.00	4707.00
N Level 2	176	176	176	176	176	176	176

Note: Maximum likelihood estimation with robust standard errors, non-standardized coefficients, *t*-values in parenthesis.

p* < 0.05, *p* < 0.01.

to public schools. Still, the largest influence on civic knowledge at the school level is represented by the percentage of parents with higher education per school, used as a proxy of the school's socioeconomic composition, with a parameter estimate of 41.5 points. Lastly, in this same model, the open classroom climate is added as school mean in order to estimate its effect at an aggregate level, in an effort to build a proxy of the actual classroom climate beyond individual perceptions. The question to be answered here is whether students in classrooms that are more open to discussion obtain better results on the civic knowledge test, which, according to the parameter estimates for mean school climate presented in Model 7, result in a positive answer. Taking into account the issues raised by Campbell (2008) regarding the measurement of classroom climate and the collinearity between individual and mean variables, the individual level variable is centered around the group mean. This actually changes the interpretation of the individual level parameter, as it now represents the effect of school climate perception regarding the classroom mean. Still, the coefficients with and without group centering are similar in size, and the significance of the effects does not change considerably.

Turning now to the main dependent variable of this study, Table 5 shows the results for the models of expected political participation. In Model 1, it can be seen that having parents with both university education and higher occupational status is related to a higher expectation of political participation. Such a finding is consistent with the resources model of political participation (Brady, Verba, and Schlozman 1995; Solt 2008) and with the arguments that suggest an intergenerational transmission of political inequality (Schlozman et al. 2012). Model 2 adds cultural capital variables, observing that parents' political interest is the variable with the highest influence on political participation at the individual level. The aims of the following models are to test the main hypothesis of this article, which is the influence of both civic knowledge and classroom climate on political participation. The estimation starts with Model 3 by introducing these predictors, revealing that both influence students' expected political participation. The equality of both coefficients was tested by generating a nested model with an equality constraint, but the estimation was not significant and, therefore, it is possible to suggest that both contribute similarly to expected participation. Next, the interaction between civic knowledge and classroom climate was tested in Model 4, in order to evaluate whether the effect of civic knowledge on political participation was moderated by different levels of classroom climate. However, the interaction was not significant.

Level 2 predictors are added in the following electoral participation models. Model 5 tests the effects of school background variables; none were significant. This means that in terms of expected electoral participation, what seems to matter most is the family educational level rather than the school's socioeconomic background. Nevertheless, the inclusion of the classroom climate as a school-level variable in Model 6 shows that what happens at an aggregate level matters: students from schools with a better perceived climate (on average) express a higher probability of electoral participation in adult life. Further analysis included the exploration of cross-level interactions between the two-level predictors and both civic knowledge and climate, but there were no evidence of consistent moderating effects.

The last step of the analysis corresponds to the estimation of mediation in the models of future participation. The question to be answered here is whether some of the effects in the prediction of future participation are mediated by civic knowledge and/or open classroom climate. The results are presented in Table 6. For the analysis, the variables considered were those with initial significant effects, such as parents' education and

Table 5. Multilevel models of expected electoral participation.

	1	2	3	4	5
<i>Level 1</i>					
Parents' university education	2.63** (5.15)	1.84** (3.65)	1.61** (3.28)	1.56** (3.20)	1.36** (2.69)
Parents occupational status	0.03* (2.35)	0.01 (0.94)	0.00 (−0.13)	0.00 (−0.03)	0.00 (−0.22)
Girls	0.47 (1.24)	0.22 (0.60)	−0.37 (−1.00)	−0.35 (−0.95)	−0.37 (−1.02)
Home literacy		0.22 (1.34)	0.07 (0.40)	0.07 (0.44)	0.06 (0.33)
Parents' political interest		3.16** (13.53)	2.94** (12.65)	2.97** (12.82)	2.97** (12.80)
Climate			0.15** (6.87)	0.06 (0.94)	0.15** (6.85)
Civic knowledge			0.01** (5.97)	0.01 (0.83)	0.01** (5.73)
Climate × civic knowledge				0.00 (1.52)	
<i>Level 2</i>					
School university education					−0.08 (−0.09)
Private school					1.11 (1.06)
Voucher school					−0.97 (−1.57)
Mean climate					0.21** (2.96)
Variance level 1	139.99	133.82	130.78	130.84	130.76
Variance level 2	9.26	8.76	7.57	7.63	7.12
N level 1	4707	4707	4707	4707	4707
N Level 2	176	176	176	176	176

Note: Maximum likelihood estimation with robust standard errors, non-standardized coefficients, *t*-values in parenthesis.

* $p < 0.05$, ** $p < 0.01$.

Table 6. Direct and indirect effects of parents' education, political interest, and open classroom climate on electoral participation.

	Parents' education 1	Political interest 2	Open climate 3
Total effect	1.73** (3.34)	3.16** (13.57)	0.16** (7.69)
Total indirect	0.37** (3.40)	0.19** (4.53)	0.01** (4.78)
By climate	-0.05 (-0.81)	0.14** (4.22)	
By knowledge	0.42** (4.58)	0.04 (1.78)	0.01** (4.78)
Direct effect	1.36** (2.69)	2.97** (12.80)	0.15** (6.85)

Note: Maximum likelihood estimation with robust standard errors. non-standardized coefficients, *t*-values in parenthesis.

p* < 0.05, *p* < 0.01.

political interest. The results of Models 1 and 2 indicate partial mediation in the case of both variables, but the mediation actually occurs in different ways: in the case of parents' university education, through civic knowledge; and for parents' political interest, through classroom climate. In addition, the influence of classroom climate on participation also appears partially mediated by civic knowledge (Model 3). This last finding means that, to a certain extent, an open classroom climate contributes to better civic knowledge scores, which in turn has an effect on a higher probability of becoming politically involved in adult life.

Discussion

The empirical findings of the present study support what is widely documented in the adult population: social background variables are related to political participation. Of course, the findings are restricted to students' expectations of electoral participation, which is just a proxy of future participation, but even taking this into account, the findings are in line with the arguments that suggest a status-participation link. Furthermore, it translates this link to school age, bringing up the issue of intergenerational transmission of political inequality. This transmission is not only due to economic resources but also to cultural capital aspects, such as the number of books at home and parents' political interest. These associations open a series of questions regarding the impact that other socialization agencies besides the schools could have in mitigating this effect.

Regarding the role of processes that occur at school, such as the transmission of civic knowledge and a democratic classroom climate, it can be said that what happens at schools matters for future participation. Both the level of civic knowledge and the classroom exerted significant influences on students' expected participation. In addition, the evidence suggests a possible path whereby openness of classroom climate would favor the acquisition of civic knowledge, which in turn influences future participation. Still, directional conclusions drawn from cross-sectional data analysis are limited and require further support based on longitudinal or experimental studies.

Coming to the main research question of this study, it is possible to say that the power of the school to mitigate the status-participation link is significant but limited. Both civic knowledge and classroom climate reduce (i.e., mediate) part of the impact of the socioeconomic and cultural capital variables. Notwithstanding the partial support for the hypothesis, there are two relevant elements to highlight. First, both explanatory concepts

(knowledge and climate) are related to different background variables, whereas civic knowledge partially mediates the effects of socioeconomic variables on participation, climate does so for cultural capital variables. Second, the perception of an open classroom climate is less influenced by economic social background than civic knowledge, similar to Campbell's (2008) findings. Therefore, an open classroom climate becomes a variable that seems to go beyond the effect of the family's economic background on the students' civic achievement and political engagement. This is particularly relevant for the Chilean case, where civic knowledge appears to be strongly affected by school-level variables related to the school administration system. Overall, classroom climate has become a variable that seems to influence a series of educational outcomes (Thapa et al. 2013), pointing out the need for implementing strategies that foster an open environment in the classroom.

There are several limitations to take into account in future studies. First, future political participation is only a proxy of actual participation and must be conceived as a general predisposition to become politically involved. In this sense, future studies might consider current participation in different school activities as an additional proxy of political participation. Second, the operationalization of political participation provided herein is narrowly restricted to electoral participation. The contrast between normative and non-normative ways of participating in, as well as the differential impacts of students' background variables on them is certainly an area that demands further research. Third, in methodological terms, the classroom climate measurement is far from being consensual in the literature, particularly regarding how to implement it as an aggregate variable in multilevel models. The relevance of this predictor to a series of outcomes requires further discussion about the implications of different operationalizations. Fourth, the model did not include higher context level variables (i.e., country) as possible moderators of the effects of family background on participation, which would have opened the discussion about topics as the influence of political culture or economic development. The consideration of a single case ruled out the inclusion of such topics in the analysis, but it was considered a tradeoff by allowing a more in-depth approach to a particular case, which in future studies could be applied to a set of countries. Finally, gender was included only as a control variable, but given the results of the analysis it certainly requires further attention, as girls perceive a better classroom climate than boys do, while at the same time achieving better civic knowledge scores. Nevertheless, this is not related to a higher expectation of participation for girls, which calls for additional studies about the possible differential impacts of political socialization at school by gender.

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