

Voice in the Classroom: How an Open Classroom Climate Fosters Political Engagement Among Adolescents

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Abstract Does civics instruction have an impact on the political engagement of adolescents? If so, how? Analysis of data from CIVED, a major study of civic education conducted in 1999, finds that an open classroom climate has a positive impact on adolescents' civic knowledge and appreciation of political conflict, even upon controlling for numerous individual, classroom, school, and district characteristics. Furthermore, an open classroom environment fosters young people's intention to be an informed voter. Results further show that exposure to an open classroom climate at school can partially compensate for the disadvantages of young people with low socioeconomic status.

Keywords Civic engagement · Civic education · Political socialization

This paper asks whether schools have an impact on the likelihood that young people will develop into active, informed citizens. And, if so, does civic education at school compensate for the disadvantages of young people with low socioeconomic status?

While once a booming area of research in political science (Greenstein 1965; Easton and Dennis 1969; Hess and Torney 1967; Jennings and Niemi 1974), the study of young people had until recently fallen largely by the wayside. There is currently a revival of interest in the topic, but political scientists' inattention to the

This research has been supported by the generous assistance of the Center for Information and Research on Civic Learning and Engagement (CIRCLE) and the National Academy of Education's postdoctoral fellowship program. Additional funding for research assistance has also come from the University of Notre Dame's Undergraduate Research Opportunity Program. Earlier versions were presented at the annual meeting of the CIRCLE advisory board, and Notre Dame's Program in American Democracy workshop. Able research assistance has been provided by Jacqueline Genesio.

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civic development of young people over the last generation has left a blind-spot in our understanding of political engagement, which the new generation of scholarship is only beginning to correct (Campbell 2002; Campbell and Wolbrecht 2006; Conover and Searing 2000; Gimpel et al. 2003; Hooghe and Stolle 2004; Jennings and Stoker 2004; Niemi et al. 2000; Niemi and Junn 1998; Sapiro 2004; Sears and Valentino 1997; Wolbrecht and Campbell 2007; Zukin et al. 2006). For example, there is growing evidence that political participation has a strong habitual component to it (Franklin 2004; Green et al. 2003), and that adolescence is an important period during which participatory habits are formed (Campbell 2006; Plutzer 2002). Yet we know relatively little about the civic development of adolescents. Specifically, we have a limited understanding of how schools do, or do not, foster political engagement among their adolescent students.

The relative paucity of empirical research into civic education is an especially glaring omission given that America's schools have a mandate to prepare citizens who are equipped to engage in the political life of the nation. While often forgotten in the midst of the public attention paid to reading and math scores, our schools also have a civic dimension. Indeed, a number of states make this explicit in their constitutions, justifying public financing for schools as the means to ensure a healthy democratic culture (Carnegie Corporation and CIRCLE 2003). Historically, the very concept of a taxpayer-financed common school had civic education as its *raison d'être*. Notwithstanding the civic rationale of American schools, however, there has been a scarcity of rigorous empirical studies into whether they are successfully fulfilling their civic mandate (Macedo 2000).

This is an especially auspicious time to study the influences, both in the classroom and beyond, contributing to the political engagement of young people. After the literature on political socialization waned, evidence from multiple sources revealed that America's youth were experiencing declining levels of political engagement (Levine and Lopez 2002; Miller and Shanks 1996; Putnam 2000; Wattenberg 2002). As engagement levels among young Americans have dropped, political science has been left with relatively little contemporary scholarship to explain the political involvement (or lack thereof) among young people and, for those with normative inclinations, an even shallower well to draw upon for potential policy interventions that might enhance the political engagement of youth.

Previous Research

Previous research on how educational experiences affect the political engagement of adolescents has proceeded along different tracks. One well-worn track consists of research which has examined the impact of participation in extra-curricular activities, a literature that has consistently shown that belonging to clubs, groups, and associations in adolescence is a "pathway" to other forms of civic and political participation in adulthood (Beck and Jennings 1982; Hanks 1981; McFarland and Thomas 2006; Smith 1999; Verba et al. 1995). More recently, a substantial body of research has also begun to examine whether service learning programs, in which adolescents perform community service as a class or graduation requirement, have an impact on the political engagement of their participants (Billig 2000; Galston 2003;

Niemi et al. 2000; Walker 2002; Youniss and Yates 1997). The literatures on extracurricular activities and service learning both provide good reason to think that experiences in adolescence shape behavior in adulthood. These two bodies of research, however, only skirt the edges of studying the impact of what happens in schools per se. After all, by definition extra-curricular activities happen outside of formal instructional hours and while service learning is typically embedded in a course of instruction, the service itself is done in the community—outside of the school.

Another, smaller body of research into the political engagement of adolescents has focused on what happens in the classroom. Research into classroom effects has been limited, however, because for roughly a generation the consensus, at least among political scientists, was that high school civics courses had little or no effect on students' political knowledge, a conclusion based largely on the research of Langton and Jennings (1968) in the 1960s. Drawing on an array of measures, they concluded that civics courses were an imperceptible signal amidst the noise of the numerous influences on adolescents' development into participatory citizens. And that remained the conventional wisdom within political science until Niemi and Junn (1998) published convincing evidence to the contrary.¹ Based on their analysis of the civics exam included in the 1988 National Assessment of Educational Progress (NAEP), a far more thorough evaluation than the broad but shallow set of civic measures used by Langton and Jennings decades before, Niemi and Junn concluded that taking civics courses does have a significant impact on adolescents' levels of political knowledge. Knowledge, in turn, is a significant predictor of political engagement (Delli Carpini and Keeter 1996).

The work of Niemi and Junn represents an important turning point for the study of civic education, as it makes the case that what happens in the classroom does have an impact on young people's preparation for active citizenship. However, their results really only demonstrate how much more we need to learn about civic education. Their main conclusion is that taking a course in civics (or, more typically, social studies) leads, on average, to an increase on the NAEP civics exam of roughly four percentage points.

Determining that taking civics classes boost scores on a civics exam is an important first step in the analysis of civic education. The next step is to determine what makes a civics class effective; perhaps the impact observed when all civics classes are grouped together masks the differential effectiveness of some classes over others. One likely candidate for effective civic education is the discussion of political issues in the classroom. Dating back to *The Civic Culture* (Almond and Verba 1989 (1963)), there has been evidence, from studies in both the United States and in other nations, suggesting that discussing political issues fosters the adoption of democratic norms and increased political efficacy (Ehman 1980; Hahn 1998; Hess 2002b). For example, preliminary analysis of 28 nations included in the 1999 CIVED dataset indicates that discussion of political issues in the classroom

¹ See Niemi and Junn, however, for a discussion of articles in the empirical literature that, prior to the publication of their book, also suggested that civics instruction has a measurable impact on adolescents' political knowledge (pp. 17–19). Because this research generally has not appeared in typical venues for political science scholarship, political scientists were largely unaware of it and the conventional wisdom remained that civics classes had little or no effect.

enhances civic knowledge (Torney-Purta 2001–2002; Torney-Purta 2002; Torney-Purta and Richardson 2005). These recent data, in turn, echo findings drawn from a previous cross-national study of civic education (Torney et al. 1975). In their analysis focused on the U.S., Niemi and Junn also provide suggestive evidence that classroom discussion leads to greater political knowledge, as adolescents' performance on the NAEP civics exam appears to be linked positively to the discussion of political issues within their classes. However, they also concede that “the mechanisms at work... remain hidden” (122), owing to the blunt measure contained in the NAEP data—a single question about the frequency of such discussions.

From all of these studies, we see evidence that the discussion of social and political issues contributes to adolescents' civic knowledge. We also see that they only scratch the surface, especially for understanding the American context. The cross-national studies employ a rich source of data, but do not focus on American schools specifically; the Niemi and Junn study deals with American schools, but has only a single, thin measure of classroom discussion. Furthermore, by using NAEP data Niemi and Junn are only able to control for a small number of school characteristics which are plausibly related to the political engagement of their students.

Theory and Hypotheses

It is not difficult to see why the discussion of political issues—what is often called an open classroom climate—would facilitate the acquisition of knowledge about civics. In classrooms where students are exposed to the real world of political issues, they are introduced to the lifeblood of participatory democracy, namely discourse and debate. Rather than dry, abstract lessons on the institutional mechanisms of the political system, students are provided with opportunities to wrestle with political and social issues. From such discussions, they glean knowledge about the political process. Some of that knowledge entails the people and issues at play in the politics of the day, but it also includes a deeper understanding of fundamental democratic principles and practices—what I label civic knowledge. The first hypothesis of this analysis is thus that an open classroom climate leads to greater civic knowledge (*Civic Knowledge Hypothesis*).

There is reason to hypothesize that an open classroom climate does more than facilitate the acquisition of knowledge, but also affects young people's disposition toward political engagement. Hibbing and Theiss-Morse (2002), for example, argue that most people are repelled by politics because they do not like conflict. This dislike is owing to a surface apathy toward most political issues which leads them to assume widespread consensus within society over most subjects that rise to the top of the issue agenda. Witnessing conflict is alienating because people perceive that it reflects the undue influence of “special interests,” distorting the underlying consensus that they assume exists within the general public. The solution Hibbing and Theiss-Morse propose is civic education designed to ensure that young people are exposed to the cut-and-thrust of political conflict:

Students will not become good citizens by memorizing lists of what a good citizen does but rather by recognizing that ordinary people have refreshingly

different interests, that these interests must be addressed even when they appear tangential, that each issue has an array of possible solutions, and that finding the most appropriate solution requires time, effort, and conflict. (225–226)

Memorably, in an earlier article they call for courses in “barbarics” rather than “civics” (Hibbing and Theiss-Morse 1996). In other words, Hibbing and Theiss-Morse advocate classrooms with an open climate, where different perspectives on political issues are discussed and debated. In such classrooms, young people learn to appreciate that conflict is an essential element of politics. Engaging in substantive discussion of social issues enables adolescents to see the difficulties intrinsic to democratic governance, and that contestation is the lifeblood of a healthy democracy. The reasoning of Hibbing and Theiss-Morse leads to the hypothesis that an open classroom climate fosters a greater appreciation for the role of conflict in the political process: the *Appreciation of Conflict Hypothesis*.

We can further hypothesize that an open classroom climate fosters a disposition toward being politically engaged. By wrestling with important social and political issues, youth develop a familiarity with the political landscape, including the institutions, processes, positions, and personalities that shape its contours. In other words, young people come to see that politics is not an alien realm, something that is only for “other people.” Instead, they become comfortable with politics, and view it as a natural activity in which to be engaged, that it is for “people like me.” In other words, they develop what Youniss et al. (1997) call a *civic identity*. Adolescence and early adulthood is a period during which many develop a self-identity, which can include the self-conception of envisioning oneself as an active participant in the political process:

[Y]outh incorporate civic involvement into their identity during an opportune moment in its formative stages. Participation promotes the inclusion of a civic character into the construction of identity that, in turn, persists and mediates civic engagement into adulthood. (624)

We should expect the discussion of contested political issues in the classroom to facilitate the development of a civic identity which incorporates being a regular participant in normative political activity. Voting is often motivated by adherence to a social norm, an expression of solidarity with one’s political community and an endorsement that the political process is legitimate (Campbell 2006; Downs 1957; Fiorina 1976; Knack 1992; Knack and Kropf 1998; Riker and Ordeshook 1968; Schlozman et al. 1995). The *Voting Hypothesis* states that exposure to political discussion in the classroom leads young people to think of themselves as future participants in the form of political expression that is subject to the strongest normative expectations, specifically voting.

Compensation Hypothesis

Previous literature has hinted that effective civic education at school might compensate for other civic disadvantages (Langton and Jennings 1968): the *Compensation Hypothesis*. Owing to the high correlation between socioeconomic status and political engagement, adolescents who come from a high status background are already likely to have adopted democratic norms, and to envision

themselves as participants in the political process. Since low-SES adolescents are less likely to be politically engaged (Gimpel et al. 2003), their experiences in the classroom are perhaps more likely to have an effect on their political engagement. Operationally, the compensation hypothesis adds a further expectation to each of the three hypotheses listed above. For each of civic knowledge, acceptance of conflict, and voting, the compensation hypothesis postulates that an open classroom climate has a larger impact on students with a lower SES.

However, while there is plausible case for the compensation hypothesis, it is important to acknowledge a potential counter-hypothesis. There is also reason to think that, instead of a compensation effect, there could be an “acceleration” effect: advantaged students gain more from classroom discussion than their less-advantaged classmates. Perhaps this is because they have a foundation of familiarity with politics already, owing to their parents’ high level of political engagement. Or perhaps they gain more from the discussion because they are more likely to be called upon by teachers to contribute to any discussion within the classroom.

Data

This analysis employs the 1999 IEA Civic Education Study (CIVED). CIVED is a school-based survey administered to a representative sample of 14-year-olds in 28 participating nations, including the U.S. Compared to the NAEP civics exam, CIVED measures more dimensions of civic education. Furthermore, unlike NAEP, it is possible to include school and school-district data in the analysis of CIVED.

For CIVED, schools were selected randomly; one ninth-grade class of a civics-related subject (typically, social studies) was surveyed in each school. The full sample includes 2,811 students in 124 public and private schools. The analysis reported here includes controls for characteristics of the school district, which are not available for some public schools and not applicable to any of the private schools. It thus uses a smaller set of schools (105) and, accordingly, students.²

Classroom Climate

Obviously, the key independent variable is the openness of the classroom climate. CIVED includes a series of items, displayed in Table 1, which suggest that adolescents are frequently exposed to varying political opinions from their classmates, and that many teachers do indeed cultivate a climate of respect for political differences.³ Using principal components factor analysis on the individual-level data within CIVED, these items have been combined into an index which measures the degree to which differing political views are discussed within the classroom.⁴ As shown in Table 1, all six items load cleanly onto a single dimension.

² See Baldi et al. (2001) and Williams et al. (2002) for more details on the administration of CIVED. See <http://www.wam.umd.edu/~jtpurta/> for the instrument itself, and numerous technical reports on the data.

³ Although note that (Hess 2002a) argues that there is little discussion in American classrooms.

⁴ Using data at the school level for the factor analysis produces nearly identical results.

Table 1 Components of the classroom climate index

	Mean (0–3)	Standard deviation	Factor loading (varimax rotation)
Students feel free to disagree openly with their teachers about political and social issues during class	2.0	.91	.63
Students are encouraged to make up their own minds about issues	2.3	.82	.68
Teachers respect our opinions and encourage us to express them during class	2.2	.88	.70
Students feel free to express opinions in class even when their opinions are different from most of the other students	2.1	.85	.67
Teachers encourage us to discuss political or social issues about which people have different opinions	1.8	.87	.59
Teachers present several sides of an issue when explaining it in class	2.1	.85	.67
Eigenvalue			2.60

Never = 0, Rarely = 1, Sometimes = 2, Often = 3

Classroom climate thus constitutes the overall factor score of all six items, standardized to have a mean and standard deviation of 1.0.⁵

As alluded to above, this is not the first study to test the impact of classroom discussion on civic education. However, previous studies share a common weakness in determining whether political discussion in the classroom is having the presumed effect. Past research has relied on respondents to indicate the degree to which social and political issues are discussed in their classes, leaving the strong possibility that it is being politically engaged that leads adolescents to perceive a greater degree of political discussion in their schools, rather than the other way around. The analysis below works around this problem by not relying solely on an individual’s self-report regarding the level of openness within the classroom. Instead, the openness of the classroom climate is estimated by averaging the perceptions of multiple respondents in the same classroom. The use of the classroom mean to measure exposure to political discussion in the classroom also does not account for the fact that within a given classroom, students will differ in their assessment of the degree to which there is discussion of contested issues. It is likely that adolescents who perceive that there is more discussion are also going to be more politically engaged. Therefore, both the classroom average and each individual’s own assessment of the classroom climate are included in the analysis.

The complication with including both measures of classroom climate in a single equation is that they are highly correlated with each other. To separate individuals’ own perception from the aggregate (classroom-level) values, therefore, the two measures have been “purged” of any correlation. For the individual respondent’s assessment, this has been done by regressing the individual’s own classroom environment score on the class mean, and saving the residuals (*Individual Perception*

⁵ Note that for the classroom climate index, a missing value on any one item in the index was imputed using the responses to the other items in the index (using the IMPUTE command in Stata 9.0). This was also done for news media and home discussion (described below). In all cases, imputed and non-imputed variables provide the same substantive results. Details available upon request.

of *Classroom Climate*). Since the residuals reflect the degree to which an individual's own score deviates from the aggregate value, the two are by definition uncorrelated. Likewise, the classroom mean was regressed on the individual's perception of classroom climate, and the resulting residuals were entered into the model as *Classroom Climate*. Note that this procedure produces a different classroom climate score for each respondent, which means that it must be treated as an individual-level variable. However, when the "unpurged" measure of classroom climate is used instead, and entered into the model as a classroom-level variable (i.e. each respondent within a given classroom receives the same score), the results are substantively identical (available upon request).

Admittedly, these corrections are not a cure-all for potential endogeneity, as students within a single classroom may collectively be both highly engaged in politics and more likely to perceive political discussion. Accordingly, the models control for other characteristics of the individual, classroom, school, and district which are likely to foster greater political engagement.

Civic Knowledge, Appreciation of Conflict, and Voting

The civic knowledge hypothesis is tested with a dependent variable comprising the percentage of correct responses to a battery of 49 objective (i.e. factual) items. Rather than "top-of-the-head" factual questions like those typically seen in surveys designed to gauge political knowledge, these items deal with broad concepts and principles within a democratic society (e.g. the purpose of political parties). The advantage of such items is that they permit international comparability and, unlike questions drawn from current events, are not time-bound. Nonetheless the civic knowledge hypothesis could, and in the future should, also be tested with items that also ask about students' fluency with current issues and events, since that type of knowledge is presumably also enhanced by classroom discussion. Regrettably that is not possible with these data, but should be a priority for future research.

The appreciation of conflict hypothesis is evaluated with an index of three questions that ask what is "good or bad for democracy": political parties which take different positions, the presence of organizations which people can join, and the right to express opinions freely.⁶ The dependent variable is the principal components factor score of the three items.⁷

Since the respondents are 14-year-olds, the voting hypothesis obviously can not be tested by having them report on whether they have ever voted. Instead, these adolescents were asked to look forward and envision whether they will vote upon becoming adults. In addition, they are asked whether they will "get information about candidates before voting in an election." These two items are the primary variables in an index of informed voting, a distinct dimension of anticipated engagement as determined by a factor analysis of the numerous CIVED items that ask about adolescents' intended future activity.⁸

⁶ Response options are very bad, somewhat bad, somewhat good, and very good.

⁷ See the Appendix for the details of the factor analysis.

⁸ See the Appendix for more details. Factor analysis reveals three other dimensions of engagement as well, which do not pertain to this analysis.

These statements of adolescents' intentions are not assumed to be an iron-clad indicator of their future involvement, for only with longitudinal data is it possible to determine definitively how adolescents' expectations correspond to their actual behavior in adulthood. However, longitudinal analysis of high school students who were asked a similar battery of questions finds that anticipated activity in adolescence does correlate highly with observed activity in adulthood (Campbell 2006)—suggesting that they have some ability to predict future behavior. Nevertheless, the most conservative interpretation of these items is that they measure adolescents' current civic identity, since they are a window into how young people think of themselves in relation to their political environment.

Compensation versus Acceleration

To adjudicate between the compensation and acceleration hypotheses, classroom climate must be interacted with a measure of socioeconomic status. Determining the SES of adolescents is difficult, as they are not likely to provide an accurate estimate of their family's income. Many adolescents are even unable to report their parents' level of education (in the U.S. component of CIVED, one third of the respondents indicated that they did not know their father's level of education). There, just as voting is measured with an item that asks adolescents to look forward, so is socioeconomic status. Specifically, it is measured with *Expected Education*, a question that asks "how many years of further education do you expect to complete after this year?" Among adults, educational attainment is the measure of SES that has the most consistent impact on political engagement (Nie et al. 1996). Similarly, expected education is a robust predictor of political engagement (no matter how it is operationalized) among adolescents, indicating that it is also a proxy for socioeconomic status. When interacted with classroom climate, expected education permits a test of whether classroom climate has, as hypothesized, a stronger impact on young people with lower SES. A negative relationship for the interaction is evidence for the compensation hypothesis (conversely, a positive relationship would indicate an acceleration effect).

Alternative Sources of Political Information

The classroom is only one avenue by which adolescents can learn about politics. The home is another, and especially important, source of political education. Ideally, the analysis would include measures of parents' political engagement. As CIVED is a survey of adolescents only, it is not possible to include measures from parents directly. Instead, the adolescent respondents were asked to report the frequency of their political discussions with family members—an admittedly imperfect but still reasonable proxy for the degree of political involvement in the home. *Home Discussion* is measured with an additive index of two items. One asks about conversations with adult family members regarding U.S. politics, the second is a parallel question about international affairs.

Still another source of political learning is the news media. Respondents' exposure to information in the media is gauged with a series of questions about the

frequency with which they use newspapers, television, and radio to follow current events (*News Media*).

Other Control Variables

In addition to the variables of theoretical interest, the models account for an array of individual-level characteristics that past research has shown are related to political engagement. These include the number of books in the home (*Books*), a measure of the general intellectual environment in the home with high validity for adolescents. The models also account for gender (*Female*) and race/ethnicity. Among the adult population, women generally fall slightly behind men in measures of political engagement (Burns et al. 2001), although among adolescents the pattern is not as consistent—for some measures females score ahead of males while for others they are behind (Hooghe and Stolle 2004). Either way, gender matters. Race and ethnicity also matter, as racial and ethnic minorities generally score lower than whites on measures of political involvement. Race/ethnicity is thus included in the model (Torney-Purta et al. 2007), coded as *White* (non-Hispanic), *African American* (non-Hispanic), *Hispanic* (Black or White), and *Other Minority*, a residual category that consists primarily but not exclusively of Asian Americans (Whites are the baseline category).

The models also account for characteristics of a student's school and district which have a plausible connection to the quality (or at least perceived quality) of academic instruction.⁹

These include the per-pupil expenditures within the school's district (*Expenditures*). While it is overly simplistic to assume that more spending automatically leads to better schools, it is plausible that when all else is equal schools with more financial resources outperform those with fewer resources. The model further controls for two measures of relative affluence, the percentage of college graduates and the median household income within a school's district (*College Graduates*; *Median Income*). Because it may be that schools in different types of communities vary in the civic education that they provide their students, the model also controls for whether a school is in an urban environment (*Urban*). At the school level, the model controls for the percentage of students who, according to federal guidelines, are eligible for a free or reduced-price lunch, a key indicator of poverty within a school population (*Free Lunch*).

There are further measures calculated by aggregating data within CIVED, as has been done with classroom climate. These include the racial composition of the class (*% African American* and *% Hispanic*) (Campbell 2007), as well as the aggregate level of education students expect to receive (*Aggregate Expected Education*). Finally, the model accounts for the frequency of social studies instruction, with the classroom average of an item that asks students how often they have social studies/civics (*Social Studies*).¹⁰ This last control is to ensure that the extent of political discussion is not simply a function of the frequency of instruction in social studies.

⁹ Data regarding schools and school districts were taken from the *Common Core of Data* (U.S. Department of Education 2002) and merged with the CIVED data.

¹⁰ This item is aggregated to the classroom level because students within a given class did not always agree on the frequency of instruction. Results are substantively identical when an individual-level measure of social studies instruction is included instead of the classroom mean.

Estimator

The estimation employs a hierarchical linear model (Raudenbush and Bryk 2002), since the structure of the CIVED data explicitly violates a standard assumption of ordinary least squares regression. Rather than a simple random sample of American adolescents, CIVED used a school-based sample; students are grouped within schools. Consequently, we cannot assume that all students are independent of one another, since the model includes aggregate measures that, by design, are the same for every student within a given classroom. A hierarchical estimation accounts for the grouped nature of the data by modeling the intercept of the individual-level equation (level 1) as a function of the school-level variables (level 2). In these hierarchical models, the level 1 intercept has been freed to vary randomly rather than remaining fixed.

In order to facilitate comparisons of effect sizes across the variables, all of the continuous and ordinal independent variables have been coded to have a mean and standard deviation of 1.0. Their coefficients thus reflect the impact of a one standard-deviation change in that independent variable. The variables have all been centered on their grand means.

Results

Table 2 reports the results for the three models. For civic knowledge (column 1), we see the central hypothesis confirmed: the more open their classroom climate, the greater students' score on the civic knowledge questions. More precisely, a one standard deviation increase in the openness of the classroom climate leads to an increase of .06 of a standard deviation in civic knowledge or, perhaps more intuitively, a gain of two percentage points.¹¹ This finding's substantive significance is underscored by the fact that these knowledge questions are not tied to the curriculum, and so these results are not the product of "teaching to the test." If there were objective items tied to contemporary politics it is likely that this impact would be more substantial.

As expected, the individual's own perception of the classroom climate also has a positive and significant impact—remember, though, that this variable reflects individual students' assessment over and above what their peers say. It remains unclear whether perceiving a lot of political discussion leads to greater engagement, or whether more engaged adolescents perceive more discussion. But since home discussion (which is statistically significant) and news media consumption (which is not) both gauge a young person's general level of political interest, the fact that the impact of classroom climate survives their inclusion in the model is further evidence that it is not simply serving as a proxy for the individual's proclivity toward political engagement.

Among the other variables, it is worth noting that only one of the district, school, and classroom variables has an impact on civic knowledge, namely the aggregate

¹¹ All statistical relationships discussed here are significant at the .05 level or less, as determined by a one-tailed test. A one-tailed test is appropriate given the directional hypotheses.

Table 2 Civic knowledge, appreciation of conflict, voting

	Civic knowledge	Appreciation of conflict	Voting
Classroom climate	.06 (.04)*	.15 (.04)**	.14 (.03)**
Classroom climate × expected education	.01 (.79)	-.04 (.02)**	-.04 (.02)**
Individual level variables			
Individual perception of classroom climate	.11 (.02)**	.18 (.02)**	.23 (.03)**
Home discussion	.05 (.02)**	.09 (.03)**	.20 (.02)**
News media	.03 (.02)	-.00 (.03)	.18 (.02)**
Expected education	.20 (.02)**	.15 (.02)**	.19 (.03)**
Books	.12 (.02)**	.08 (.03)**	.10 (.02)**
Female	.05 (.04)	.10 (.04)**	.23 (.04)**
African American	-.36 (.06)**	-.06 (.08)	-.08 (.08)
Hispanic	-.20 (.06)**	-.14 (.07)*	-.05 (.06)
Other race/ethnicity	-.17 (.07)**	-.12 (.08)	-.07 (.08)
Classroom, school, district variables			
Expenditures (district)	-.01 (.03)	-.05 (.04)	-.02 (.03)
College graduates (district)	.03 (.07)	-.00 (.06)	.07 (.05)
Median income (district)	-.02 (.07)	.01 (.08)	-.06 (.05)
Free lunch (school)	-.07 (.05)	.08 (.04)*	.05 (.04)
Urban (school)	-0.11 (.08)	-0.11(.06)*	-.09 (.06)
% Black (classroom)	-.01 (.05)	-.08 (.04)**	.002 (.04)
% Hispanic (classroom)	-.04 (.03)	-.12(.04)**	-.02 (.03)
Aggregate expected education (classroom)	.22 (.04)**	.10 (.03)**	.10 (.02)
Social studies	.04 (.03)	.06 (.04)	.005 (.03)
Constant	1.01 (.03)**	-.01 (.03)	-1.00** (.02)
Individual-level variance explained	0.22	0.08	0.32
Number of individuals	2078	2032	2011
Number of schools	105	105	105

Results from hierarchical linear models

* $P < .05$; ** $P < .01$ (one-tailed test)

level of students' expected education within the classroom. The null result for the frequency of social studies instruction is especially noteworthy, as it suggests that the quality of civics instruction matters more than its quantity.

Neither the compensation nor the acceleration hypotheses find support in the civic knowledge model, as the interaction between classroom climate and expected education is nowhere near statistical significance. In other words, the impact of an open classroom climate on civic knowledge is the same for both high and low-SES adolescents.

Turning to appreciation of conflict, again classroom climate has a positive and significant impact, but to a greater extent than for civic knowledge. A one standard deviation increase in the openness of classroom climate correlates with an increase

of 0.15 of a standard deviation in appreciation of conflict—over twice the size of the coefficient in the civic knowledge model. While slightly smaller, it is also close in size to the coefficient for the individual's perception of classroom climate (0.18).

As with civic knowledge, the frequency of social studies instruction has no statistically significant impact on appreciation of conflict. However, many of the contextual measures do—free lunch, urban, % Black, % Hispanic, and aggregate expected education. In other words, students who attend schools in an urban environment, with more students in poverty, with more minorities, and with peers who expect to receive less education are less likely to express support for the role of conflict in a democratic society. Importantly, though, classroom climate maintains its impact, even with the impact of these school-level variables, many of which are themselves correlated with classroom climate.

Again echoing the results for civic knowledge, political discussion in the home is significantly, and positively, related to appreciation of conflict while news media consumption is not. Students who talk about politics at home—itsself a proxy for parental political engagement—express more appreciation for the give-and-take of a pluralistic democracy. Likewise, students of higher SES (measured by expected education) are more likely to say that they see a role for conflict in politics.

However, low SES does not mean a young person's appreciation of conflict is destined to fall dramatically below that of adolescents with high SES. The home environment—SES specifically—interacts with classroom climate to support the compensation hypothesis. The negative coefficient for classroom climate \times expected education means simply that as an adolescent's expected education rises, classroom climate has less of an impact. In other words, classroom climate has the greatest impact on young people of low SES.

For voting, the impact of classroom climate is similar to the models of both civic knowledge and appreciation of conflict—positive and statistically significant. The magnitude of classroom climate's impact on voting is very close in magnitude to acceptance of conflict (0.14 for voting, 0.15 for appreciation of conflict).

The other class, school, and district variables have no impact. As in the other models, home political discussion has a significant (albeit modest) impact (.02), while this is the first equation in which news media has a large and highly significant coefficient (.18). The positive coefficient for attention to news media makes sense, given that the dependent variable includes a measure of whether adolescents see themselves gathering information prior to casting their ballot. It suggests that those who follow the news as adolescents envision themselves doing so as adults.

Notably, as with acceptance of conflict, the compensation hypothesis again finds support in the model of voting. An open classroom climate has more impact on adolescents with lower SES.

To clarify the interpretation of the interaction term, its results are displayed graphically in Fig. 1. The figure displays the results for appreciation of conflict, but note that the figure for voting is very similar. Specifically, Fig. 1 displays the differential impact of classroom discussion on respondents who score two standard deviations below the mean of expected education (someone who expects to drop out of high school) and two standard deviations above (expectation of attending graduate school). All control variables are held constant at their means. The line

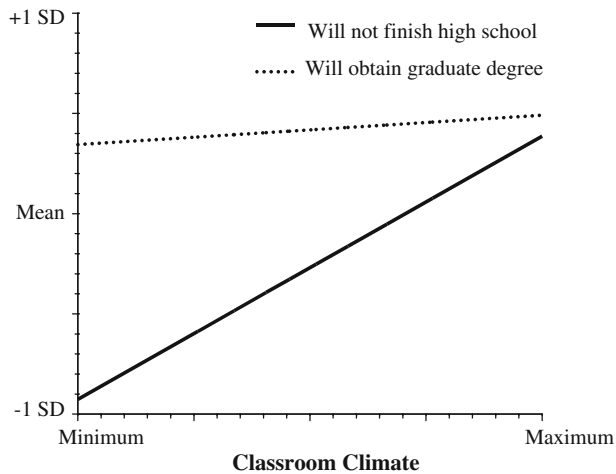


Fig. 1 Classroom climate has a greater impact on lower-SES students' appreciation of conflict

for the students with a high level of expected education is nearly flat, while the line for students who do not expect to go far in school slopes sharply upward, rising over one standard deviation over the full range of classroom climate. *In other words, classroom climate has virtually no impact on students with a high level of expected education.* In contrast, it has a considerable impact on students who do not expect to obtain much education and, therefore, are likely to be of low SES. Indeed, as classroom climate approaches its maximum the lines nearly cross, meaning that both groups of students report almost the same appreciation for political conflict.

Summary and Conclusion

This paper began by posing two questions. Do schools have an impact on whether adolescents are likely to become active, informed participants in the political system? If so, can schools compensate for the civic disadvantages of young people with low socioeconomic status? The answers to both questions, at least provisionally, are yes and yes.

While past research has shown that taking civics courses correlates with greater civic knowledge, the above analysis suggests that it is actually the nature of political discussion within the classroom, not simply the frequency of formal social studies instruction, which has the effect. A classroom environment which fosters a free, open, and respectful exchange of ideas is positively related to young people's level of knowledge about democratic processes.

This analysis supports the argument of Hibbing and Theiss-Morse that exposure to political conflict in the classroom will lead young people to develop a greater appreciation for the role of conflict within a democratic political system.

Furthermore, an open classroom climate correlates with an increased likelihood that adolescents envision themselves as informed voters, and a decreased likelihood that they endorse unconventional (i.e. illegal) forms of political expression.

Furthermore, these results provide evidence, albeit mixed, for the compensation hypothesis. While there is not evidence for compensation when applied to civic knowledge—an open classroom climate has the same impact on all adolescents regardless of their expected level of education—these results do support the compensation hypothesis as it applies to both appreciation of conflict and voting. In both cases, the lower the level of education an adolescent expects to obtain, the greater the impact of an open classroom climate.

These results are hardly the final word on effective civics instruction, as they admittedly leave ambiguous the precise process by which an open classroom climate might influence the civic development of adolescents. For example, it is probable that much of what is observed as the influence of an open classroom climate works through a social learning process, particularly teachers serving as models of democratic and discursive behavior. Similarly, there is likely also a peer effect, whereas apolitical teens are “pulled” into having greater political awareness by their engaged classmates. Or both could be happening—teachers are civic role models, which spur some youth to be more politically engaged, who in turn encourage their friends and peers to be politically engaged. With this evidence favoring the civically salutary consequences of an open classroom climate, future research ought to be directed toward sorting out the causal process by which this occurs with more precision. Causation can be determined more definitely if cross-sectional data like CIVED and NAEP are supplemented with longitudinal research. Even better, non-experimental studies like this one should be complemented by experimental studies of different approaches to enhancing political discussion in the classroom.

I close by noting some overtly normative implications of these findings. Schools are often highlighted as a policy lever to boost voter turnout among the young, but specific proposals are inevitably fraught with controversy. A fundamental difficulty facing any proposal to reform civic education in the schools is disagreement over its objectives (Murphy 2003). The policy implication stemming from the study of an open classroom climate avoids this difficulty, as presumably virtually all Americans can agree that young people should be encouraged to become informed voters. Importantly, the classroom discussion in question does not consist of ideological indoctrination, which would obviously invite controversy, but instead even-handed, respectful discourse about opposing viewpoints. For policy-makers, it is particularly significant that civic education in school appears to have the potential to partially compensate for the persistent class bias in political engagement. While parents ought not to be complacent about the importance of their efforts to engage their children in discussions about politics, it is nonetheless easier to target schools than homes for policy interventions designed to boost the political engagement of low SES youth. These results suggest that fostering an open classroom climate is a promising strategy to do so. With more voice in the classroom, perhaps there could be more equality in political engagement.

Appendix

Results from Factor Analysis

Table A1 Appreciation of conflict

	Factor loading
Right to express opinions	.70
Many organizations	.74
Parties have different positions	.69
Eigenvalue	1.50

Table A2 Voting index

	Factor loading
Will vote	.74
Will be informed	.71
Will join a party	.23
Will write letters	-.02
Will run for office	-.09
Will volunteer	.05
Will collect money	-.004
Will collect signatures	.05
Will participate in rally	.03
Will spray-paint	-.01
Will block traffic	.01
Will occupy buildings	-.01
Eigenvalue	1.98

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