Student participation at school and future civic engagement: Results from ICCS 2009

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Paper prepared for the IEA Research Conference in Singapore, 26-28 June 2013.

Abstract

Civic and citizenship education aims to prepare young people for their roles as citizens in society. Potential learning outcomes include enhanced knowledge and understanding of civic-related issues as well as student attitudes and behaviours. This paper focuses on the importance of civic participation at school as part of this learning process. Civic participation at school has been emphasized increasingly in the literature in studies of the associations between student participation at school and their expected future engagement in society.

The data presented in this paper were collected as part of the International Civic and Citizenship Education Study (ICCS 2009), which surveyed 140,000 Grade 8 students as well as 60,000 teachers and 5,000 school principals in 38 countries. The data include measures of students' background, civic knowledge, attitudes and behaviours as well as context information about schools.

Introduction

Adolescents are generally not able to participate in civic activities in the same ways as adult citizens (e.g., through voting or becoming candidates in elections). However, they may experiment to determine what power they have to influence how their schools are run, and in doing so may develop a sense of being able to influence things. Civic and citizenship education may provide opportunities for students to experience more democratic forms of school governance which in turn have the potential to contribute to higher levels of civic knowledge and engagement as well as positive perceptions of democracy at school among students.

The IEA International Civic and Citizenship Education Study studied the ways in which young people in lower secondary schools are prepared to undertake their roles as citizens in a wide range of countries including Europe, Latin America, and the Asian-Pacific region (Schulz, Ainley, Fraillon, Kerr & Losito, 2010). This paper uses data from ICCS 2009 to investigate how students' involvement and perception of civic participation at their schools is related to their plans for future engagement as citizens in their societies. To study this association it takes other important student and school level factors into account and compares multivariate models across 36 participating countries.

Theoretical Framework

Active engagement by citizens is often regarded as a pillar of democratic regimes whose functioning relies to a great extent on contributions from their citizens to the democratic process. According to Verba, Schlozman & Brady (1995, p. 38) *political participation* can be defined as an "activity that has the intent or effect of influencing government action – either directly by affecting the making of implementation of public policy or indirectly by influencing the selection of people those policies". According to Putnam (1995) *civic engagement* encompasses "people's connections with the life of their communities, not merely politics" (p. 665). Whereas definitions of citizen engagement differ, there is broad consensus regarding the importance of formal education as a strong predictor of adult engagement (see Nie, Junn, & Stehlik-Barry, 1996).

Protest behaviour became a more wide-spread form of participation in Western democracies during the seventies and eighties (Barnes et al., 1979) and led scholars to distinguish more explicitly "conventional" (voting, running for office) from "unconventional (social movement)" activities (grass-root campaigns, protest activities) (Kaase, 1990). Ekman and Amnå (2009) see civic participation (latent political participation) as different from manifest political participation as well as individual forms from collective forms of engagement. In this typology, civic participation consists of involvement (e.g., interest and attentiveness) and civic engagement (defined here as either individual or collective activities outside the political sphere). Political participation can involve formal political participation (e.g., voting or party membership) or activism (legal or illegal protest).

The ICCS assessment framework (Schulz, Fraillon, Ainley, Losito & Kerr, 2008) emphasizes both *behavioural intentions* (i.e. students' expectations of future action) as well as *behaviours* (i.e. current or past civic participation) which are seen as important aspects of students' civic engagement. Given the limitations 14-year-old students face with regard to active participation, the study emphasised behavioural intentions for what they expect to do in the future as particularly important for this age group.

Numerous studies on social capital and citizen participation in society have used membership or involvement in larger organisations or community groups as indicators of civic engagement (see for example, Van Deth, Maraffi, Newton & Whiteley, 1999; Putnam, 2000). Becoming involved in these activities can be seen as an indicator of, and also as a resource for, future engagement. A "social network" is viewed, along with trust and social norms, by Putnam (1993) as one of three components of social capital.

Students at the age group under study in ICCS tend to have limited opportunities for active participation in the wider community. However, some studies (for example, Verba, Schlozman & Brady, 1995) have emphasized the links between adolescent participation and later involvement as adult citizens. Data from the IEA CIVED study in 1999, for example, have provided evidence that participation in political youth organisations is associated with a higher sense of internal political efficacy among lower and upper secondary students (Schulz, 2005).

Many scholars have stressed the importance of students' experience at school in determining the extent to which they have power to influence how schools are run (Bandura, 1997). There is evidence that more democratic forms of school governance have the potential of contributing to higher levels of political engagement (see for example Mosher, Kenny & Garrod, 1994; Pasek, Feldman, Romer & Jamieson, 2008).

Furthermore, students' involvement in civic-related activities at school tends to be associated with higher levels of civic knowledge. In their analyses of the NAEP assessments in the United States, Niemi and Junn (1998) found that participation in role-playing elections or mock trials had a positive effect on civic knowledge. Reported student participation in a school council or student parliament was also a positive predictor of civic knowledge and engagement in the CIVED and ICCS 2009 (Torney-Purta et al., 2001; Amadeo et al., 2003; Schulz et al, 2010; ACARA, 2011).

Both CIVED and ICCS 2009 included items designed to assess students' confidence in the value of school participation. Results from both studies showed that female students expressed more confidence in the value of school participation than did

males (Torney-Purta et al., 2001; Schulz et al., 2010). The 2010 national assessment of civics and citizenship in Australia assessed grade 6 and grade 10 students' valuing of civic action (both at school and in general) and confirmed more positive appreciations of civic action among female students (ACARA, 2011). The results also showed that there was no change in the levels of valuing civic action between young and older students.

Citizen activities such as voting, volunteering for campaign work, becoming members of political parties or other politically active organisations, running for office or protest activities are all different forms of political participation. Among these, voting is clearly the least intensive and demanding of these activities. Verba, Schlozman and Brady (1995) identify three factors as predictors of political participation: (i) resources enabling individuals to participate (time, knowledge), (ii) psychological engagement (interest, efficacy) and (iii) "recruitment networks" which help to bring individuals into politics (like social movements, church groups or parties).

With regard to the first factor, ICCS 2009 data include measures of students' civic knowledge and with regard to the second, most importantly students' citizenship self-efficacy as well as the value they assign to student participation at school as the most relevant from of engagement at this age. Active participation at school as well as engagement in the community are both related to the third factor by providing recruitment network that may motivate further student engagement.

This paper will focus on the link between variables related to student participation (reported engagement as well as valuing student participation), related intermediate variables of importance (civic knowledge and citizenship self-efficacy) and student expectations of participation in the future. The conceptual model for explaining variation students' motivation for future electoral, active political participation and engagement in legal and illegal protest activities assumes that these behavioural intentions are influenced by student home and school context variables including current or past participation as well as three important mediating variables.

- *Civic knowledge* is viewed as an important factor which reflects how much students know about civic issues and constitutes a resource enabling them to engage.
- *Citizenship self-efficacy* reflects the confidence students express in their own abilities to participate in civic life.
- *Valuing student participation at school* is the extent to which students think that civic engagement is important with regard to their current context at school.

For the purpose of studying the relationship with expectations of future civic engagement we used four variables: expected electoral participation, expected active political participation and expected participation in legal and illegal protest. These variables are perceived as being influenced by the three intermediate variables civic knowledge, citizenship self-efficacy and valuing student participation as well as directly by some of the context variables.

In particular, the paper will investigate the relationships between student engagement at school, context variables, civic knowledge, students' citizenship self-efficacy and expected forms of future engagement as adult citizens.

Data

The paper includes results from analyses of the international survey data from ICCS 2009, which was carried out in 38 participating countries between October 2008 and May 2009. In each country approximately 150 schools were sampled depending on characteristics of the education system using PPS (probability proportional to size as measured by the number of students enrolled) sampling procedures. Typically, one intact class was randomly selected within each sampled school. Student samples per country ranged from 3000 to 5000 students in the target grade. The target grade corresponded to the eighth year of schooling provided that the minimum age of students was 13.5 years, in which case the ninth grade was selected.

The participation rates required for each country were 85 percent of the selected schools as well as 85 percent of the selected students within the participating schools or a weighted overall participation rate of 75 percent. These requirements are intended to minimise bias in the achieved samples that might arise from differential non-participation.

The following instruments were used in the ICCS data collection:

- The international student test with 80 items in seven different clusters administered in complete rotated design with seven randomly allocated booklets, each consisting of three 15-minutes clusters.
- The international student questionnaire (40 minutes length) which was administered after the international test booklets.
- The international teacher questionnaire contained questions regarding school context, teaching and learning and took about 30 minutes to be completed.
- The international school questionnaire contained questions about school characteristics, school, and community context and took 20-30 minutes to be completed.

The analyses presented in this paper are based on data from the student test and questionnaire from 36 countries that met sample participation requirements.

Analysis model and variables

Modelling approach

To investigate the relationships between student context variables, civic engagement, civic knowledge, citizenship efficacy, valuing of school participation and expected participation, path models were estimated using the software package MPLUS 6.11 (Muthén & Muthén, 2011). In a first step, exploratory analyses were carried out using a pooled international sample consisting of 36 national sub-samples with 500 students per country (18,000 students). Once a final model had been defined, it was estimated for each national dataset separately.

The criterion variables for these analyses were *expected electoral participation*, *expected active political participation*, e*xpected participation in legal protest* activities, and *expected participation in illegal protest activities*.

To investigate the relationships between home and school context variables, civic-related student learning outcomes and expected participation as adults, we estimated a

path model which assumes that knowledge, citizenship self-efficacy and valuing student participation function as intermediate variables between home and school context and expected electoral or active political participation in the future. Both reported participation at school and in the community form part of the set of contextual antecedent variables in this model. Figure 1 illustrates the conceptual path model.

<Insert Figure 1 here>

Cases with missing values on any of the variables were excluded from the path analyses presented in this paper. On average across countries, about 11 percent of students were excluded due to missing values; in two countries (Dominican Republic and Paraguay) considerably higher percentages above 20 percent were found.

The path analyses were undertaken at the student level. Exploratory analyses confirmed that except for civic knowledge there were only small proportions of variance found between schools. Therefore and also in order to reduce model complexity it was decided to undertake single-level analyses instead of estimated multilevel models. All continuous variables (IRT scales) were z-standardised at the national level while categorical variables (sex, expected years of education) were left in their original metric.

In the exploratory phase all possible paths were included and removed if the coefficients were of negligible size in the overall model as well as not statistically significant ($p>0.05$) in almost all national samples. The final model still includes a few path coefficients of a small size that were significant in a number of countries. The model also includes estimates of the (partial) correlations between the three intermediate variables and the two indicators of expected participation as adults.

Once the final model had been defined, the analyses were carried out for the 36 national samples using jackknife replication (JK2) to obtain correct standard errors for the model coefficients.

Variables in the analysis

The variables in the analysis consist of scales and single item indicators. Scales and the scaling methodology are described in detail in the ICCS 2009 Technical Report (Schulz & Friedman, 2011).

The following contextual variables were viewed as important covariates for indicators of student engagement at school:

- *Students' sex* with female was coded as 1 and male as 0: The ICCS 2009 results showed a considerable gender gap in favour of female students (Schulz et al., 2010, p. 80-81).
- *Students' expected further education* was coded as approximate years according the expected ISCED level of qualification: Multivariate analyses of CIVED and ICCS 2009 data have shown this variable to be a consistent predictor of students' civic knowledge (Torney-Purta et al., 2001; Schulz et al., 2010).
- *Students' socio-economic background* was included as a nationally standardized composite index based on highest parental occupation, highest parental education and the number of books at home: Analyses of ICCS 2009

data suggested this factor as a consistent predictor across participating countries (Schulz et al., 2010, p. 228-230).

- *Reported parental interest in political and social issues* was coded as a dummy indicator with 0 for student who reported both parents as not interested or not very interested, and 1 for those with at least one parent quite interested or very interested: This variables was identified a particular important predictor of expected participation in the analysis of ICCS 2009 data (Schulz et al., 2010, p. 235-242).
- *Frequency of discussing political and social issues with parents* was coded as three-point scale with scores 0 (never or hardly ever), 1 (monthly), and 2 (weekly or daily): Multivariate analyses of home background with ICCS 2009 showed that this variable was related to civic knowledge and interest (Schulz et al., 2010, p. 203-209).
- *Perception of openness with respect to classroom discussions of political and social issues*, which is an IRT scale reflecting the extent to which students consider they are free to express opinions in class and to discuss civic-related issues; it was derived from student responses to six items[1] and had an average reliability (Cronbach's alpha) of 0.76 across countries: This variable was identified as predictor of civic knowledge and engagement in CIVED and ICCS 2009 (Torney-Purta et al., 2001; Schulz et al., 2010).
- *Civic participation at school:* Students were asked to report whether they had done the school-based civic activities ("within the last 12 months," "more than a year ago," or "never") and the six items[2] were used to obtain an IRT scale reflecting student participation at school with an average reliability (Cronbach's alpha) of 0.66 across participating countries.
- *Civic participation in the community*: Students were asked to report whether they had done the school-based civic activities ("within the last 12 months," "more than a year ago," or "never") and the seven items[3] were used to obtain an IRT scale with an average reliability (Cronbach's alpha) of 0.74 across participating countries.

The following variables were used as intermediate variables in the model:

- *Students' civic knowledge*. The variable is an IRT scale (z-standardized for this analysis) derived from the ICCS cognitive test consisting of 79 multiple-choice and six constructed response items with a reliability of 0.84 (see details in Schulz & Fraillon, 2011).

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[1] The items were: teachers encourage student to make up their own minds; teachers encourage students to express their opinions; students bring up current political events for discussion in class; students express opinions in class even when their opinions are different from most of the other students; teachers encourage students to discuss the issues with people having different opinions; teachers present several sides of the issues when explaining them in class.

[2] The items were: voluntary participation in school-based music or drama activities outside of regular lessons; active participation in a debate; voting for class representative or school parliament; taking part in decision-making about how the school is run; taking part in discussions at a student assembly; becoming a candidate for class representative or school parliament.

[3] The items were: political youth organisations; environmental organisations; human rights organisations; voluntary groups in the community; charitable organisations; cultural organisations based on ethnicity; groups campaigning for an issue.

- *Students' citizenship self-efficacy*: Students were asked to state how well students thought they could do different tasks related to civic engagement regarding the value of student engagement at school and seven items[4] were used to derive an IRT scale with an average reliability (Cronbach's alpha) of 0.82 across ICCS countries. Generally, half or more of students across participating countries reported would do the different tasks very well or fairly well (Schulz et al., 2010, p. 120-121).
- *Students' valuing of student participation at school*: Students were asked to state their agreement or disagreement with four items regarding the value of student engagement at school[5] which were used to derive an IRT scale with an average reliability (Cronbach's alpha) of 0.72 across ICCS countries. Generally, large majorities of students tended to agree or strongly agree with the statements across participating countries (Schulz et al., 2010, p. 135-136).

The following four variables reflecting students' expectations regarding future participation[6] were used as dependent variables:

- *Students' expected electoral participation*: This IRT scale was based on three items[7] and had an average reliability of 0.82 across participating countries.
- *Students' expected active political participation*: This IRT scale was based on four items[8] and had an average reliability of 0.81.
- *Students' expected participation in legal protest activities*: This IRT scale was based on six items[9] and had an average reliability (Cronbach's alpha) of 0.79 across participating countries.
- *Students' expected participation in illegal protest activities*: This IRT scale was based on three items[10] and had an average reliability (Cronbach's alpha) of 0.83 across participating countries.

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[4] The items were: discuss a newspaper article about a conflict between countries; argue your point of view about a controversial political or social issue; stand as a candidate in a school election; organise a group of students in order to achieve changes at school; follow a television debate about a controversial issue; write a letter to a newspaper giving your view on a current issue; speak in front of your class about a social or political issue.

[5] The items were: Lots of positive changes can happen in schools when students work together; Organizing groups of students to express their opinions could help solve problems in schools; Students can have more influence on what happens in schools if they act together rather than alone; Student participation in how schools are run can make schools better; All schools should have a school parliament.

[6] The response categories for the questions on students' expected participation were "I will certainly do this", "I will probably do this", "I will probably not do this" and "I will certainly not do this".

[7] The items were: voting in local elections; voting in national elections; get information about candidates before voting in an election.

[8] The items were: help a candidate or party during an election campaign; join a political party; join a trade union; stand as a candidate in a local election.

[9] The items were: writing a letter to a newspaper; wearing a badge or t-shirt expressing your opinion; contacting an elected representative; taking part in a peaceful march or rally; collecting signatures for a petition; choosing not to buy certain products.

[10] The items were: spray-painting protest slogans on walls; blocking traffic; occupying public buildings.

Results

Figure 1 provides an outline of the conceptual path model. Given the complexity of the model, a simplified version is shown including the paths between intermediate and dependent variables but not those from background variables. Path coefficients are recorded in the subsequent tables.

<Insert Figure 1 here>

Table 1 summarises the average (standardised) path coefficients and correlations in tabular form. The corresponding country level results are shown in the Appendix Tables 3, 4, 5, 6, 7, 8 and 9.

<Insert Table 5 here>

Being female had a weak positive effect on civic knowledge and a weak negative effect on expected active political participation. It was also negatively associated with expectations of participating in illegal protest forms. Socio-economic background of students had a relatively strong positive effect on civic knowledge but it did not affect any of the other dependent variables.

Parental interest had weak, and on average significant, positive effects on citizenship self-efficacy and valuing student participation at school (0.10 and 0.06 respectively). Having parents interested in political and social issues had direct positive and on average significant effects on expected electoral participation (0.16), active political participation (0.11) and participation in legal protest (0.10).

Coming from a home where parents talk with their children about political and social issues had modest positive effects on civic knowledge (0.08) and citizenship self-efficacy (0.11) but the relationship was rather weak (albeit on average significant) for valuing student participation (0.04).

Expected further education reflects students' intended engagement with education and is an important potential predictor of civic knowledge, parental expectations, and individual aspirations. It has a relatively strong effect on civic knowledge (0.23) and only weak but mostly statistically significant effects on citizenship self-efficacy (0.05) and valuing student participation at school (0.07).

The variable openness in classroom discussion reflects the extent to which students considered that they were free to express opinions in class and to discuss civic-related issues. It showed consistent positive effects on civic knowledge (0.13), citizenship self-efficacy (0.10) and valuing of student participation (0.18).

Reported student participation in civic activities at school had positive effects on civic knowledge (0.12), citizenship self-efficacy (0.20) and valuing school participation (0.15). Reported student participation in the community, however, had a negative effect on civic knowledge in this model (-0.15) and a positive effect on citizenship self-efficacy (0.10). Having experience with participation in the community was positively and on average significantly associated with expected active political participation in the future (0.07) and expectations to engage in legal protest activities.

Civic knowledge had a relatively strong positive effect on expected electoral participation (0.24) and a weak positive effect on expected legal protest (0.09). Furthermore, it was negatively associated with the expectations of engaging actively

in politics as an adult (-0.13) and expected illegal protest activities (-.19). Students' confidence in their ability to engage was consistently a positive predictor for both expected electoral (0.25), active political participation (0.34) and expected engagement in legal protest activities (0.40). It also had consistent positive but weaker effect on expectations to participate in illegal protest forms (0.14).

Valuing student participation at school had weak, but mostly significant, positive effects on expected electoral participation (0.13) and legal protest (0.08). Expected active political participation had weak positive effects in only a few countries (0.02) and mostly negative associations with expected illegal protest activities (-0.05).

The model included the correlations between intermediate variables and the two indicators of expected participation after controlling for other factors included in the model. Civic knowledge was not correlated with citizenship self-efficacy but had a positive association with valuing student participation (0.14). Self-efficacy and valuing student participation were positively correlated at 0.18.

There were mostly positive correlations between the four forms of expected participation. Expected electoral participation had positive correlations with active political participation (0.34) and expected legal protest (0.20) but was not consistently correlated with expected illegal protest (-0.03). Active political participation had positive correlations with both legal (0.28) and illegal protest (0.17) while both forms of protest had also a positive inter-correlation of 0.33.

<Insert Table 6 here>

Table 6 describes the model fit and the explained variance for each of the dependent variables for each national sample and on average across countries. The model fit was satisfactory across countries with an average RMSEA of 0.04 and an average RMR of 0.02. On average, the model explained 28 percent of the variance in civic knowledge (ranging from 20% to 35%), 17 percent in citizenship self-efficacy (ranging from 6% to 29%), 10 percent in valuing student participation at school (ranging from 4% to 17%), 24 percent in expected electoral participation (ranging from 14% to 37%) and 19 percent in expected active political participation (ranging from 8% to 28%). The model explained 26 percent of the variance in expected legal protest (ranging from 10% to 36%) and only 9 percent in illegal protest (4% to 29%). It should be noted that the percentages of explained variance varied quite considerably across participating countries.

Conclusion and discussion

The results from these analyses provide evidence about the importance of civic knowledge and citizenship self-efficacy in explaining the future engagement of students. Whereas both variables have positive effects on expected electoral expectations and legal protest, more knowledgeable students are less likely to expect to become actively involved in conventional political activities or illegal forms of protest. The model also supports a conceptual model of civic and citizenship education that envisages the development of civic knowledge and student citizenship self-efficacy as separate "learning outcomes", each of which is positively influenced by the provision of an open classroom climate and opportunities for students to participate in civic-related activities at school. A rather counterintuitive finding is that whilst reported student participation had a positive effect on civic knowledge,

reported participation in the community was associated with lower levels of civic knowledge. However, it should be noted that the ICCS 2009 indicator of community participation included both explicitly civic-related (e.g. political youth organisations) and activities not directly civic-related (e.g. charities).

The results of the analyses also show that student participation at school was associated with higher levels of civic knowledge, citizenship self-efficacy and valuing student engagement. Valuing student participation had a positive relationship with expectations to engage in elections but was not associated with expectations to become actively involved in conventional political activities. Whereas students who valued this form of participation were more likely to become engaged in elections or legal protest, indices related to school participation did not lead to expectations of become more actively involved in active (conventional) political participation or illegal forms of protest.

It needs to acknowledged that the effects of civic and citizenship education on active citizenship can only be truly assessed through longitudinal studies that follow individuals from school through to adult life. Therefore we recommend caution when interpreting the results from the path analyses. Given the cross-sectional nature of the ICCS 2009 survey, assumptions about causal relationships were made with for the sake of statistical modelling but readers should be aware that some of the associations modelled as uni-directional paths could also be interpreted as reciprocal. For example, reported participation at school may to a certain extent be current activities that are due to student beliefs about the value of doing so.

It is also important to keep in mind that ICCS students were asked about their expectations about intended behaviour in future adult life like elections at a relatively early stage of adolescence which may change prior to reaching adulthood. However, it also reasonable to argue that data from cross-sectional surveys such as those presented in this paper may be used to model influences on students' intentions to participate. The theory of planned behaviour (Ajzen, 2001), and a body of empirical research derived from that theory, supports the proposition that intentions act as powerful mediating influences on actions, and that attitudes, experiences and backgrounds operate on actions through their influences on intentions.

Some of the findings require further investigation. In particular the negative relationships between community participation and civic knowledge and the negative effect of cognitive measures on expectations of active political participation should be analysed further.

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Figure and Tables

Figure 1 **Conceptual path model**

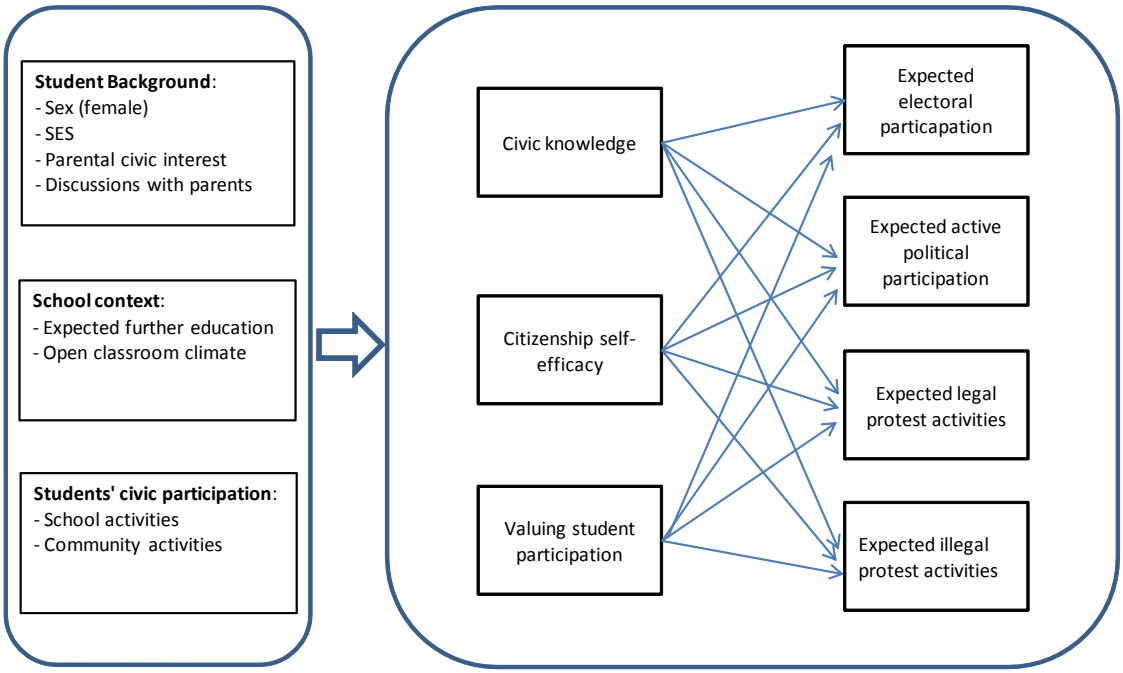

Table 5: Summary table of average model coefficients

Standardised path coefficients

Predictor variables	Civic knowledge	Citizenship efficacy	Valuing school participation	Expected electoral participation	Expected active political participation	Expected legal protest activities	Expected illegal protest activities
Students' sex (female)	**0.07**			0.00	**-0.08**	-0.01	**-0.13**
Expected years of further education	**0.23**	**0.05**	**0.07**				
Socio-economic background	**0.24**						
Highest parental interest		**0.10**	**0.06**	**0.16**	**0.11**	**0.10**	
Frequency of talking with parents about civic issues	**0.08**	**0.11**	0.04				
Perceived openness in classroom discussions	**0.13**	**0.10**	**0.18**				
Participation at school	**0.12**	**0.20**	**0.15**				
Participation in community	**-0.15**	**0.10**			**0.07**	**0.10**	
Civic knowledge				**0.24**	**-0.13**	**0.09**	**-0.19**
Citizenship efficacy				**0.25**	**0.34**	**0.40**	**0.14**
Valuing student participation				**0.13**	0.02	**0.08**	**-0.05**
Correlations between criterion variables							
Citizenship efficacy	-0.01						
Valuing student participation	**0.14**	**0.18**					
Expected active political participation				**0.34**			
Expected legal protest activities				**0.20**	**0.28**		
Expected illegal protest activities				-0.03	**0.17**	**0.33**	
Average explained variance (in %)	28	17	10	24	19	26	9

Coefficients that were on average significant across countries (p>0.05) in **bold**.

Table 6 Model fit indices and explained variance of dependent variables

	Model fit		*% explained variance*						
Country	**RMSEA**	**RMR**	**Civic knowledge**	**Citizenship efficacy**	**Valuing school participation**	**Expected electoral participation**	**Expected active participation**	**Expected legal protest activities**	**Expected illegal protest activities**
Austria	0.04	0.02	23	21	10	31	21	24	9
Belgium (Flemish) †	0.04	0.02	20	14	6	23	16	23	7
Bulgaria	0.03	0.02	35	16	11	20	19	22	7
Chile	0.03	0.02	30	17	14	16	21	27	6
Chinese Taipei	0.03	0.02	33	9	8	27	18	20	12
Colombia	0.03	0.02	24	13	6	21	26	30	9
Cyprus	0.04	0.02	29	18	16	26	23	33	8
Czech Republic †	0.04	0.02	29	18	11	33	17	26	4
Denmark †	0.05	0.02	29	29	8	32	16	25	5
Dominican Republic	0.04	0.02	21	6	4	20	26	32	15
England ‡	0.04	0.02	35	26	17	37	22	36	8
Estonia	0.04	0.02	29	18	11	23	14	16	10
Finland	0.05	0.02	21	25	9	31	21	31	5
Greece	0.05	0.03	28	18	10	18	13	25	4
Guatemala[1]	0.04	0.02	25	16	7	15	21	21	7
Indonesia	0.04	0.02	20	7	8	14	16	23	18
Ireland	0.04	0.02	29	24	13	29	21	36	8
Italy	0.04	0.02	30	23	9	25	20	30	4
Korea, Republic of[1]	0.04	0.02	25	10	9	27	8	10	5
Latvia	0.03	0.02	21	18	14	20	16	27	10
Liechtenstein	0.00	0.02	24	13	7	21	17	22	10
Lithuania	0.04	0.02	31	14	9	29	20	23	12
Luxembourg	0.04	0.02	30	15	8	18	17	24	9
Malta	0.04	0.02	30	22	10	28	28	33	13
Mexico	0.03	0.02	21	9	10	21	22	27	13
New Zealand †	0.04	0.02	30	26	16	34	22	33	7
Norway †	0.05	0.03	31	20	10	31	15	26	10
Paraguay[1]	0.04	0.02	30	12	7	19	19	26	7
Poland	0.04	0.02	35	22	14	26	18	22	8
Russian Federation	0.03	0.02	26	16	16	18	24	27	6
Slovak Republic[2]	0.05	0.02	30	15	13	29	22	30	6
Slovenia	0.03	0.02	30	19	13	24	17	20	11
Spain	0.04	0.02	29	16	10	21	18	30	9
Sweden	0.04	0.02	29	25	16	30	17	31	8
Switzerland †	0.05	0.02	21	19	6	24	16	24	8
Thailand †	0.05	0.02	31	6	11	21	17	15	29
ICCS average	0.04	0.02	28	17	10	24	19	26	9

† Met guidelines for sampling paticipation rates only after replacement schools were included.

‡ Nearly satisfied guidelines for sample participation only after replacement schools were included.

[1] Country surveyed the same cohort of students but at the beginning of the next school year.

[2] National Desired Population does not cover all of International Desired Population.

Appendix tables

Table 7 Country-level path coefficients for civic knowledge

	Standardised path coefficients						
Country	**Gender (female)**	**Socio-economic background**	**Discussions with parents**	**Expected years of further education**	**Openness in classroom discussions**	**Participation at school**	**Participation in the community**
Austria	**0.05**	**0.25**	**0.14**	**0.22**	**0.11**	0.04	**-0.10**
Belgium (Flemish) †	0.01	**0.28**	**0.11**	**0.17**	0.04	**0.13**	**-0.06**
Bulgaria	**0.08**	**0.32**	**0.04**	**0.20**	**0.23**	**0.14**	**-0.20**
Chile	0.03	**0.32**	**0.11**	**0.18**	**0.16**	**0.14**	**-0.19**
Chinese Taipei	**0.06**	**0.23**	**0.08**	**0.34**	**0.07**	**0.15**	**-0.13**
Colombia	0.02	**0.19**	0.02	**0.11**	**0.22**	**0.23**	**-0.29**
Cyprus	**0.09**	**0.18**	**0.07**	**0.23**	**0.15**	**0.26**	**-0.16**
Czech Republic †	**0.04**	**0.19**	**0.09**	**0.30**	**0.08**	**0.18**	**-0.14**
Denmark †	0.03	**0.26**	**0.18**	**0.20**	**0.10**	**0.13**	**-0.08**
Dominican Republic	**0.17**	**0.12**	0.02	**0.15**	**0.25**	**0.10**	**-0.21**
England ‡	**0.06**	**0.31**	**0.10**	**0.16**	**0.21**	**0.19**	**-0.17**
Estonia	**0.08**	**0.20**	**0.12**	**0.31**	**0.06**	**0.08**	**-0.17**
Finland	**0.14**	**0.21**	**0.15**	**0.19**	**0.05**	**0.09**	**-0.10**
Greece	**0.09**	**0.19**	0.02	**0.25**	**0.22**	**0.13**	**-0.14**
Guatemala[1]	0.00	**0.31**	-0.01	**0.09**	**0.20**	**0.06**	**-0.29**
Indonesia	**0.04**	**0.14**	**0.06**	**0.18**	**0.19**	**0.11**	**-0.24**
Ireland	0.03	**0.27**	**0.13**	**0.25**	**0.16**	0.02	**-0.12**
Italy	**0.06**	**0.24**	**0.09**	**0.30**	**0.15**	0.03	**-0.13**
Korea, Republic of[1]	**0.09**	**0.19**	**0.12**	**0.27**	-0.02	**0.18**	**-0.11**
Latvia	**0.10**	**0.19**	**0.11**	**0.21**	**0.12**	**0.12**	**-0.16**
Liechtenstein	0.10	**0.37**	0.08	**0.19**	0.00	-0.01	-0.05
Lithuania	0.02	**0.34**	**0.08**	**0.28**	**0.09**	**0.04**	**-0.04**
Luxembourg	**0.10**	**0.19**	**0.05**	**0.38**	0.02	**0.10**	**-0.12**
Malta	**0.14**	**0.22**	**0.09**	**0.32**	**0.11**	**0.12**	**-0.15**
Mexico	**0.10**	**0.21**	**0.05**	**0.22**	**0.13**	**0.09**	**-0.20**
New Zealand †	**0.06**	**0.24**	0.04	**0.24**	**0.17**	**0.17**	**-0.18**
Norway †	**0.08**	**0.28**	**0.07**	**0.22**	**0.14**	**0.18**	**-0.14**
Paraguay[1]	**0.12**	**0.28**	**0.08**	**0.22**	**0.13**	**0.15**	**-0.20**
Poland	**0.10**	**0.23**	**0.09**	**0.29**	**0.08**	**0.23**	**-0.19**
Russian Federation	0.02	**0.22**	**0.07**	**0.24**	**0.24**	**0.05**	**-0.14**
Slovak Republic[2]	0.02	**0.17**	**0.08**	**0.40**	**0.11**	0.02	-0.04
Slovenia	**0.10**	**0.16**	**0.13**	**0.29**	**0.13**	**0.18**	**-0.17**
Spain	**0.05**	**0.23**	**0.14**	**0.29**	**0.08**	**0.10**	**-0.14**
Sweden	**0.05**	**0.29**	**0.10**	**0.16**	**0.14**	**0.17**	**-0.12**
Switzerland †	0.03	**0.32**	**0.09**	**0.18**	**0.09**	0.04	-0.01
Thailand †	**0.16**	**0.18**	**0.03**	**0.25**	**0.25**	0.02	**-0.18**
ICCS average	**0.07**	**0.24**	**0.08**	**0.23**	**0.13**	**0.12**	**-0.15**

Significant coefficients (p>0.05) in **bold**.

† Met guidelines for sampling paticipation rates only after replacement schools were included.

‡ Nearly satisfied guidelines for sample participation only after replacement schools were included.

[1] Country surveyed the same cohort of students but at the beginning of the next school year.

[2] National Desired Population does not cover all of International Desired Population.

Table 8 Country-level path coefficients for citizenship self-efficacy

	Standardised path coefficients					
Country	**Expected years of education**	**Parental interest**	**Discussions with parents**	**Openness in classroom discussions**	**Participation at school**	**Participation in the community**
Austria	**0.08**	**0.13**	**0.13**	**0.10**	**0.24**	**0.09**
Belgium (Flemish) †	0.03	**0.10**	**0.13**	**0.12**	**0.17**	**0.10**
Bulgaria	0.02	**0.12**	**0.07**	**0.09**	**0.19**	**0.18**
Chile	**0.05**	**0.09**	**0.10**	**0.15**	**0.18**	**0.14**
Chinese Taipei	-0.02	**0.09**	**0.10**	**0.10**	**0.11**	**0.11**
Colombia	0.02	**0.10**	**0.08**	**0.06**	**0.16**	**0.16**
Cyprus	0.01	**0.12**	**0.06**	**0.10**	**0.26**	**0.12**
Czech Republic †	0.03	**0.08**	**0.15**	**0.11**	**0.21**	**0.11**
Denmark †	**0.12**	**0.11**	**0.18**	**0.11**	**0.30**	**0.03**
Dominican Republic	0.01	**0.06**	0.03	0.04	**0.12**	**0.14**
England ‡	**0.07**	**0.13**	**0.11**	**0.13**	**0.29**	**0.08**
Estonia	**0.09**	**0.10**	**0.10**	**0.09**	**0.23**	**0.11**
Finland	**0.10**	**0.12**	**0.16**	**0.10**	**0.29**	**0.04**
Greece	**0.11**	**0.06**	**0.13**	**0.14**	**0.21**	**0.09**
Guatemala[1]	0.03	**0.10**	**0.10**	**0.06**	**0.18**	**0.19**
Indonesia	**-0.09**	**0.07**	0.01	0.03	**0.07**	**0.19**
Ireland	**0.08**	**0.13**	**0.18**	**0.12**	**0.23**	**0.08**
Italy	**0.16**	**0.09**	**0.16**	**0.15**	**0.19**	**0.09**
Korea, Republic of[1]	**0.13**	**0.07**	**0.09**	**0.12**	**0.13**	-0.02
Latvia	**0.06**	**0.10**	**0.12**	**0.06**	**0.23**	**0.12**
Liechtenstein	**0.13**	0.10	0.03	0.12	0.13	0.11
Lithuania	0.01	**0.09**	**0.13**	**0.13**	**0.18**	**0.09**
Luxembourg	**0.05**	**0.09**	**0.09**	**0.11**	**0.18**	**0.13**
Malta	0.03	**0.15**	**0.15**	**0.08**	**0.26**	**0.12**
Mexico	-0.01	**0.11**	**0.06**	**0.09**	**0.11**	**0.12**
New Zealand †	**0.09**	**0.11**	**0.14**	**0.12**	**0.28**	**0.10**
Norway †	**0.07**	**0.12**	**0.18**	**0.08**	**0.23**	**0.06**
Paraguay[1]	-0.04	**0.12**	**0.12**	**0.11**	**0.15**	**0.10**
Poland	**0.07**	**0.13**	**0.14**	**0.09**	**0.23**	**0.12**
Russian Federation	0.02	**0.11**	**0.10**	**0.08**	**0.18**	**0.13**
Slovak Republic[2]	0.00	**0.12**	**0.10**	**0.10**	**0.22**	**0.10**
Slovenia	**0.04**	**0.08**	**0.14**	**0.12**	**0.24**	**0.10**
Spain	**0.07**	**0.10**	**0.11**	**0.10**	**0.19**	**0.12**
Sweden	**0.08**	**0.11**	**0.14**	**0.13**	**0.29**	**0.05**
Switzerland †	**0.07**	**0.09**	**0.13**	**0.12**	**0.25**	**0.11**
Thailand †	**-0.10**	**0.09**	**0.04**	**0.08**	**0.07**	**0.12**
ICCS average	**0.05**	**0.10**	**0.11**	**0.10**	**0.20**	**0.10**

* Data not available.

Significant coefficients (p>0.05) in **bold**.

† Met guidelines for sampling paticipation rates only after replacement schools were included.

‡ Nearly satisfied guidelines for sample participation only after replacement schools were included.

[1] Country surveyed the same cohort of students but at the beginning of the next school year.

[2] National Desired Population does not cover all of International Desired Population.

Table 9 Country-level path coefficients for valuing of student participation

Country	Standardised path coefficients: Expected years of education	Parental interest	Discussions with parents	Openness in classroom discussions	Participation at school
Austria	**0.09**	0.04	**0.10**	**0.18**	**0.11**
Belgium (Flemish) †	**0.04**	**0.05**	**0.04**	**0.08**	**0.17**
Bulgaria	**0.08**	**0.05**	-0.01	**0.14**	**0.24**
Chile	**0.08**	**0.06**	0.03	**0.27**	**0.14**
Chinese Taipei	**0.09**	**0.06**	**0.04**	**0.15**	**0.13**
Colombia	-0.01	**0.06**	**0.04**	**0.17**	**0.09**
Cyprus	**0.15**	**0.06**	0.00	**0.17**	**0.23**
Czech Republic †	**0.05**	**0.04**	**0.07**	**0.14**	**0.21**
Denmark †	0.01	**0.08**	0.00	**0.15**	**0.18**
Dominican Republic	**0.06**	-0.02	**-0.05**	**0.17**	**0.07**
England ‡	0.03	**0.09**	**0.06**	**0.24**	**0.19**
Estonia	**0.10**	**0.08**	0.01	**0.16**	**0.17**
Finland	**0.05**	**0.06**	0.03	**0.15**	**0.18**
Greece	**0.10**	0.02	**0.06**	**0.20**	**0.10**
Guatemala[1]	0.02	0.04	-0.01	**0.23**	**0.09**
Indonesia	**0.08**	**0.06**	0.02	**0.21**	**0.06**
Ireland	**0.09**	**0.05**	**0.06**	**0.20**	**0.17**
Italy	**0.12**	0.04	**0.06**	**0.17**	**0.11**
Korea, Republic of[1]	**0.07**	**0.05**	**0.09**	**0.13**	**0.14**
Latvia	0.00	0.02	**0.05**	**0.23**	**0.21**
Liechtenstein	0.05	0.06	-0.03	**0.14**	**0.16**
Lithuania	**0.05**	**0.12**	0.01	**0.16**	**0.16**
Luxembourg	**0.12**	**0.06**	0.03	**0.07**	**0.15**
Malta	**0.15**	**0.05**	**0.06**	**0.13**	**0.14**
Mexico	**0.09**	**0.05**	0.01	**0.22**	**0.11**
New Zealand †	**0.07**	**0.11**	0.02	**0.26**	**0.15**
Norway †	**0.05**	**0.08**	0.00	**0.19**	**0.15**
Paraguay[1]	**0.08**	0.00	**0.07**	**0.18**	**0.08**
Poland	**0.11**	**0.09**	0.04	**0.18**	**0.17**
Russian Federation	0.00	**0.10**	**0.04**	**0.21**	**0.21**
Slovak Republic[2]	**0.06**	**0.08**	**0.06**	**0.21**	**0.15**
Slovenia	**0.05**	**0.08**	**0.06**	**0.21**	**0.18**
Spain	**0.08**	0.03	**0.09**	**0.17**	**0.13**
Sweden	**0.07**	**0.10**	**0.07**	**0.22**	**0.18**
Switzerland †	**0.05**	**0.06**	**0.07**	**0.06**	**0.16**
Thailand †	**0.08**	**0.08**	0.01	**0.24**	**0.10**
ICCS average	**0.07**	**0.06**	0.04	**0.18**	**0.15**

Significant coefficients (p>0.05) in **bold**.

† Met guidelines for sampling paticipation rates only after replacement schools were included.

‡ Nearly satisfied guidelines for sample participation only after replacement schools were included.

[1] Country surveyed the same cohort of students but at the beginning of the next school year.

[2] National Desired Population does not cover all of International Desired Population.

Table 10 **Country-level path coefficients for expected participation in legal and illegal protest**

	Standardised path coefficients									
	Expected legal protest activities						Expected illegal protest activities			
Country	Gender (female)	Parental interest	Participation in the community	Civic knowledge	Citizenship self-efficacy	Valuing student participation	Gender (female)	Civic knowledge	Citizenship self-efficacy	Valuing student participation
Austria	-0.02	**0.07**	**0.06**	**0.13**	**0.34**	**0.14**	**-0.21**	**-0.20**	**0.09**	**0.02**
Belgium (Flemish) †	**0.05**	**0.05**	**0.15**	**0.10**	**0.37**	**0.04**	**-0.19**	**-0.14**	**0.11**	**-0.04**
Bulgaria	**-0.07**	**0.07**	**0.08**	**0.09**	**0.36**	**0.11**	**-0.14**	**-0.16**	**0.16**	**0.03**
Chile	-0.01	**0.04**	**0.08**	**0.11**	**0.41**	**0.13**	**-0.08**	**-0.19**	**0.16**	**-0.02**
Chinese Taipei	**-0.09**	**0.06**	**0.07**	**0.12**	**0.36**	**0.10**	**-0.14**	**-0.24**	**0.15**	**-0.07**
Colombia	**-0.05**	**0.04**	**0.11**	**0.06**	**0.45**	**0.13**	**-0.06**	**-0.26**	**0.11**	**-0.08**
Cyprus	-0.03	**0.10**	**0.10**	**0.05**	**0.45**	**0.10**	**-0.15**	**-0.16**	**0.20**	**-0.03**
Czech Republic †	0.00	**0.06**	**0.10**	**0.18**	**0.38**	**0.07**	**-0.14**	**-0.08**	**0.13**	**-0.05**
Denmark †	**0.13**	**0.08**	**0.11**	**0.12**	**0.34**	**0.05**	**-0.17**	**-0.15**	**0.07**	**-0.03**
Dominican Republic	**-0.05**	**0.04**	**0.10**	**-0.05**	**0.48**	**0.13**	**-0.06**	**-0.28**	**0.24**	**-0.04**
England ‡	**0.11**	**0.08**	**0.10**	**0.10**	**0.44**	**0.09**	**-0.09**	**-0.23**	**0.17**	**-0.11**
Estonia	**-0.07**	0.04	**0.09**	**0.13**	**0.30**	**0.07**	**-0.20**	**-0.19**	**0.11**	**-0.05**
Finland	**0.11**	**0.06**	**0.03**	**0.17**	**0.41**	**0.09**	**-0.11**	**-0.16**	**0.12**	**-0.04**
Greece	-0.01	**0.07**	**0.08**	**0.05**	**0.42**	**0.08**	**-0.07**	**-0.15**	**0.12**	**0.10**
Guatemala[1]	**-0.08**	**0.05**	**0.13**	**0.07**	**0.37**	**0.09**	**-0.12**	**-0.17**	**0.11**	**-0.10**
Indonesia	**-0.05**	**0.05**	**0.07**	**-0.04**	**0.43**	**0.03**	**-0.04**	**-0.21**	**0.28**	**-0.10**
Ireland	**0.09**	**0.07**	**0.12**	**0.11**	**0.45**	**0.11**	**-0.18**	**-0.17**	**0.10**	**-0.10**
Italy	0.02	**0.05**	**0.15**	**0.07**	**0.43**	**0.09**	**-0.09**	**-0.15**	**0.14**	**-0.01**
Korea, Republic of[1]	-0.01	**0.06**	**0.10**	**-0.03**	**0.25**	**0.07**	**0.03**	**-0.22**	**0.08**	**-0.03**
Latvia	-0.01	0.02	**0.07**	**0.09**	**0.42**	**0.12**	**-0.22**	**-0.13**	**0.17**	**-0.10**
Liechtenstein	-0.08	0.10	0.07	**0.15**	**0.38**	**0.07**	**-0.09**	**-0.29**	-0.02	**0.02**
Lithuania	**-0.05**	**0.06**	**0.07**	**0.15**	**0.39**	**0.05**	**-0.13**	**-0.25**	**0.20**	**-0.07**
Luxembourg	0.01	**0.06**	**0.08**	**0.15**	**0.35**	**0.12**	**-0.19**	**-0.19**	**0.13**	**0.04**
Malta	-0.03	**0.08**	**0.10**	0.03	**0.50**	0.05	**-0.17**	**-0.22**	**0.19**	**-0.12**
Mexico	**-0.05**	**0.02**	**0.09**	**0.05**	**0.45**	**0.11**	**-0.11**	**-0.25**	**0.19**	**-0.06**
New Zealand †	**0.12**	0.03	**0.10**	**0.13**	**0.43**	**0.10**	**-0.07**	**-0.20**	**0.16**	**-0.12**
Norway †	0.02	**0.08**	**0.12**	**0.12**	**0.39**	**0.06**	**-0.18**	**-0.23**	**0.13**	**-0.06**
Paraguay[1]	**-0.06**	0.04	**0.10**	0.04	**0.45**	**0.08**	**-0.08**	**-0.17**	**0.19**	**0.00**
Poland	**-0.06**	**0.05**	**0.14**	**0.12**	**0.35**	**0.05**	**-0.20**	**-0.10**	**0.16**	**-0.11**
Russian Federation	-0.01	**0.06**	**0.08**	**0.04**	**0.46**	**0.04**	**-0.10**	**-0.10**	**0.20**	**-0.10**
Slovak Republic[2]	-0.02	0.03	**0.05**	**0.19**	**0.46**	**0.06**	**-0.10**	**-0.15**	**0.15**	**-0.09**
Slovenia	-0.03	**0.09**	**0.10**	**0.06**	**0.33**	**0.10**	**-0.21**	**-0.20**	**0.12**	**-0.09**
Spain	0.01	**0.07**	**0.11**	0.03	**0.46**	**0.07**	**-0.17**	**-0.17**	**0.18**	**-0.05**
Sweden	**0.07**	**0.06**	**0.09**	**0.13**	**0.40**	**0.10**	**-0.15**	**-0.20**	**0.10**	**-0.10**
Switzerland †	0.01	**0.07**	**0.14**	**0.18**	**0.31**	**0.11**	**-0.22**	**-0.14**	**0.07**	**-0.04**
Thailand †	**-0.14**	**0.03**	**0.11**	**-0.10**	**0.27**	**0.02**	**-0.16**	**-0.40**	**0.16**	**-0.09**
ICCS average	-0.01	**0.06**	**0.10**	**0.09**	**0.40**	**0.08**	**-0.13**	**-0.19**	**0.14**	**-0.05**

Significant coefficients (p>0.05) in **bold**.

† Met guidelines for sampling paticipation rates only after replacement schools were included.

‡ Nearly satisfied guidelines for sample participation only after replacement schools were included.

[1] Country surveyed the same cohort of students but at the beginning of the next school year.

[2] National Desired Population does not cover all of International Desired Population.

Table 11 Correlations between dependent variables

Correlations between dependent variables

Country	Electoral participation *with*			Active political participation *with*		Legal protest activities *with*
	Active political participation	Legal protest activities	Illegal protest activities	Legal protest activities	Illegal protest activities	Illegal protest activities
Austria	**0.27**	**0.13**	**-0.08**	**0.21**	**0.18**	**0.27**
Belgium (Flemish) †	**0.29**	**0.21**	**-0.06**	**0.25**	**0.18**	**0.29**
Bulgaria	**0.42**	**0.20**	-0.02	**0.26**	**0.18**	**0.40**
Chile	**0.45**	**0.18**	0.00	**0.27**	**0.22**	**0.40**
Chinese Taipei	**0.28**	**0.19**	**-0.06**	**0.30**	**0.21**	**0.36**
Colombia	**0.31**	**0.24**	**-0.05**	**0.25**	**0.16**	**0.23**
Cyprus	**0.46**	**0.26**	0.03	**0.31**	**0.18**	**0.36**
Czech Republic †	**0.45**	**0.18**	-0.03	**0.19**	**0.07**	**0.35**
Denmark †	**0.33**	**0.21**	**-0.11**	**0.29**	**0.19**	**0.26**
Dominican Republic	**0.44**	**0.28**	**0.05**	**0.34**	**0.29**	**0.35**
England ‡	**0.38**	**0.24**	-0.01	**0.30**	**0.12**	**0.29**
Estonia	**0.31**	**0.17**	-0.03	**0.22**	**0.13**	**0.31**
Finland	**0.27**	**0.11**	**-0.10**	**0.22**	**0.13**	**0.42**
Greece	**0.26**	**0.18**	**-0.07**	**0.26**	**0.12**	**0.32**
Guatemala[1]	**0.26**	**0.19**	0.01	**0.30**	**0.22**	**0.34**
Indonesia	**0.30**	**0.23**	**0.06**	**0.38**	**0.33**	**0.44**
Ireland	**0.37**	**0.24**	**-0.06**	**0.24**	**0.05**	**0.21**
Italy	**0.22**	**0.17**	**-0.10**	**0.30**	**0.18**	**0.25**
Korea, Republic of[1]	**0.29**	**0.26**	**0.07**	**0.41**	**0.32**	**0.47**
Latvia	**0.27**	**0.23**	-0.03	**0.28**	**0.05**	**0.31**
Liechtenstein	**0.35**	0.04	**-0.15**	**0.18**	**0.13**	**0.30**
Lithuania	**0.43**	**0.20**	-0.03	**0.22**	**0.14**	**0.36**
Luxembourg	**0.24**	**0.22**	**-0.12**	**0.18**	**0.11**	**0.24**
Malta	**0.35**	**0.22**	-0.02	**0.30**	**0.19**	**0.33**
Mexico	**0.34**	**0.22**	0.03	**0.27**	**0.23**	**0.39**
New Zealand †	**0.30**	**0.24**	**-0.06**	**0.32**	**0.21**	**0.28**
Norway †	**0.35**	**0.28**	-0.02	**0.36**	**0.19**	**0.30**
Paraguay[1]	**0.40**	**0.22**	**0.08**	**0.27**	**0.24**	**0.40**
Poland	**0.35**	**0.20**	0.01	**0.34**	**0.22**	**0.43**
Russian Federation	**0.33**	**0.21**	**-0.04**	**0.32**	**0.20**	**0.40**
Slovak Republic[2]	**0.35**	**0.15**	**-0.05**	**0.20**	**0.12**	**0.29**
Slovenia	**0.31**	**0.16**	-0.02	**0.25**	**0.15**	**0.37**
Spain	**0.36**	**0.21**	**-0.04**	**0.26**	**0.14**	**0.26**
Sweden	**0.35**	**0.20**	-0.03	**0.31**	**0.17**	**0.33**
Switzerland †	**0.40**	**0.24**	**-0.11**	**0.29**	**0.06**	**0.25**
Thailand †	**0.31**	**0.16**	-0.01	**0.33**	**0.30**	**0.48**
ICCS average	**0.34**	**0.20**	-0.03	**0.28**	**0.17**	**0.33**

Significant coefficients (p>0.05) in **bold**.

† Met guidelines for sampling paticipation rates only after replacement schools were included.

‡ Nearly satisfied guidelines for sample participation only after replacement schools were included.

[1] Country surveyed the same cohort of students but at the beginning of the next school year.

[2] National Desired Population does not cover all of International Desired Population.