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Education for Citizenship in Times of Global Challenge

IEA International Civic and Citizenship Education Study 2022 International Report

Wolfram Schulz
John Ainley
Julian Fraillon
Bruno Losito
Gabriella Agrusti
Valeria Damiani
Tim Friedman

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IEA International Civic and Citizenship Education Study 2022 International Report

Jointly prepared by:

Australian Council for Educational Research (ACER – Melbourne, Australia)
Libera Università Maria Santissima Assunta (LUMSA Università – Rome, Italy)
International Association for the Evaluation of Educational Achievement
(IEA – Amsterdam, The Netherlands, and Hamburg, Germany)

Central contact: iccs@acer.org

Wolfram Schulz
Australian Council for Educational Research
Hamburg, Hamburg, Germany

Julian Fraillon
IEA
Eltham North, VIC, Australia

Gabriella Agrusti
LUMSA University
Rome, Italy

Tim Friedman
Australian Council for Educational Research
Camberwell, Australia

John Ainley
Australian Council for Educational Research
Camberwell, VIC, Australia

Bruno Losito
Roma Tre University
Rome, Italy

Valeria Damiani
LUMSA University
Rome, Italy

IEA Secretariat
Keizersgracht 311
1016 EE Amsterdam
The Netherlands
Tel.: +31 (0)20 625 3625
Fax: +31 20 420 7136
secretariat@iea.nl

Researching education, improving learning

The International Association for the Evaluation of Educational Achievement (IEA), with headquarters in Amsterdam, is an independent, international cooperative of national research institutions and governmental research agencies. It conducts large-scale comparative studies of educational achievement and other aspects of education, with the aim of gaining in-depth understanding of the effects of policies and practices within and across systems of education.

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Foreword

Assessing students in scientifically sound, large-scale assessments plays an imperative role in understanding the various education systems around the world in order to promote educational progress and support countries in building foundational knowledge and increasing their researching capacity. For over 60 years, IEA (the International Association for the Evaluation of Educational Achievement) has conducted such research studies, with the aim of providing high-quality data on a variety of crucial subjects that can be used for fostering improvements in countries' educational landscapes.

Beyond the realm of traditional subjects like mathematics, science, and literacy lies the fundamental domain of civic and citizenship education. The imperative work done for ICCS (the International Civic and Citizenship Education Study) and its antecedents underscores the organization's recognition of the significance of holistic education. This commitment is not an academic pursuit alone but also a profound acknowledgment of the role education plays in shaping responsible global citizens.

In an era of unprecedented globalization, the relevance of global citizenship education has been further underscored by the United Nations' Sustainable Development Goals and particularly education target 4.7, emphasizing the importance of nurturing a global perspective. At its core, this approach hinges on cultivating citizenship competencies that prepare individuals to navigate a world characterized by diversity, human rights, social justice, and active political participation. The world also faces great challenges in the wake of an international pandemic, various conflicts, and rapidly changing technologies.

In this context, the release of the results from ICCS's third cycle resonates deeply. ICCS 2022 marks the continuation of IEA's legacy, delving into the preparedness of young individuals to embrace their roles as active citizens of the world. This study recognizes the pivotal role of foundational skills while underscoring that a broader perspective is indispensable for thriving in a world that values cultural openness, moral grounding, and civic engagement.

ICCS 2022, conducted across 24 education systems, unveils a wealth of data and insights about lower- secondary school students' understanding of civics and citizenship. By analyzing students' attitudes, perceptions, and activities related to civic institutions and behaviors, the study offers a panoramic view of civic education's impact. Moreover, ICCS 2022 forges connections with previous cycles, enabling valuable comparisons and illuminating trends over time.

The study's scope encompasses both common and distinct aspects of civics and citizenship, creating a nuanced tapestry of findings. Additionally, regional questionnaires tailored for Europe delve into specific aspects relevant to their contexts, and this cycle offered some modules tailored for Latin America as per the previous cycle. Further insights will also be available due to the computer-based assessment option being undertaken in 18 participating systems, which allowed for computer-enhanced items to be utilized and process data like timing information to be collected. The resulting comprehensive data set—along with technical reports, international databases, and the various further reports to come—invites the global research community to explore and analyze the dimensions of civic and citizenship education.

ICCS embodies two key objectives: monitoring shifts in civic knowledge, attitudes, and engagement over time, and addressing emerging civic challenges. This endeavor equips countries with the evidence needed to evaluate educational policies and gauge progress toward national, regional, and international objectives. ICCS 2022's findings celebrate the growth in civic knowledge and appreciation for diversity among students of the twenty-first century. Yet, they also shed light on the existing variations, often more pronounced within countries than between them, and the growing challenges faced in equipping students with the knowledge foundation they need to be active, well-informed members of their own country systems as well as citizens of this diverse, globalized world.

As the journey continues, IEA is steadfast in its commitment to advancing civic and citizenship education. This cycle of ICCS acknowledges the fluid nature of this field, adapting to evolving national and international contexts, especially with innovations to student questionnaire items about views of political systems and threats to democracies as well as more explicit recognition of global citizenship, such as concerns about widespread threats to the world's future. This commitment

extends to addressing life skills, socio- emotional dimensions, and a holistic citizenship education, resonating with the United Nations' Sustainable Development Goals.

None of this would be possible without the unwavering dedication of an extensive network of researchers, experts, and partners. IEA's collaboration with the international study center, ACER (the Australian Council for Educational Research) with Wolfram Schulz and his team, and further support from Lumsa Università in Rome (Italy) with Bruno Losito, Gabriella Agrusti, and their colleagues, provided great work in the development and implementation of this study amidst the unexpected challenges of the COVID-19 pandemic and various other trials. Thank you to all the staff at each of these organizations as well as across both locations at IEA for your commitment and perseverance on this important project. I gratefully acknowledge the steadfast support of the PAC (Project Advisory Committee) and sampling referee—Barbara Malak-Minkiewicz, Cristián Cox, Erik Amnå, Judith Torney-Purta, Wiel Veugelers, and Marc Joncas. I also extend sincere gratitude to the NRCs (national research coordinators) and the education systems involved. The diverse and committed members who supported this study underscore the collaborative spirit behind this monumental effort.

As we reflect on the intricate web of contributions that have woven ICCS 2022 into reality, we extend our gratitude to all stakeholders. The students, teachers, principals, and education systems from around the world that participated in the study are the bedrock upon which this endeavor stands. Their willingness, insights, and efforts are the foundation upon which future educational advancements will be built.

In closing, ICCS stands as a testament to IEA's unswerving dedication to enriching global education. As we embrace the findings of ICCS 2022, we eagerly anticipate the wealth of research, analyses, and reflections that will stem from this important study. The journey continues, propelled by the commitment to fostering inclusive, informed, and engaged citizens who will shape the world of tomorrow.

Amsterdam, The Netherlands Dirk Hastedt

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Introduction to the International Civic and Citizenship Education Study 2022

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1.1 Introduction

There is a long-standing tradition in research on education that has emphasized the crucial role of schools in preparing young people to undertake their roles as citizens in society (see Dewey, 1916). While not always established as a specific subject area, civic and citizenship education tends to be included across national curricula as a learning area that seeks to support young people's knowledge and understanding of society's principles and institutions, their critical appraisal of citizens' roles and responsibilities, and their learning on how to influence policies and practices through democratic processes (Ainley et al., 2013; Cox, 2010; European Commission/EACEA [European Education and Culture Executive Agency]/Eurydice, 2017).

There is ample evidence of the diversity in how civic and citizenship education is implemented across different education systems, with often overlapping approaches that range from the teaching of specific civic-related subjects through to its integration into other related subjects (such as history or social science studies), to its definition as a cross-curricular learning area (Council of Europe, 2018; Malak-Minkiewicz & Torney-Purta, 2021). Nevertheless, there is a broad consensus about the importance of preparing young people for citizenship as part of school education (European Commission/EACEA/Eurydice, 2017). Traditionally, the acquisition of knowledge about civic institutions, decision-making processes, and citizenship rights and responsibilities have been at the core of civic learning (Geboers et al., 2013). Recently, the notion of providing young people at school with opportunities to engage and experience ways of engaging in society has become more prominent in curricular approaches across many countries (Barber et al., 2015). Some of these approaches are related to the concept of creating a "whole school" environment that promotes participation and non-formal civic learning through experience among students at school.

While there has been a dominant focus on the nation state as the point of reference for civic learning, globalization, digitalization, and increased levels of migration have led to interest in the notion of global citizenship as a concept of being members of a globalized community (Oxley & Morris, 2013). This includes the idea of multiple identities such as being national, regional, and/or global citizens (European Commission/EACEA/Eurydice, 2017; UNESCO [United Nations Educational, Scientific and Cultural Organization], 2015). Further, the concept of education for sustainable development (ESD) has emerged in response to increasing concerns about global threats to the environment and the sustainability of the socio-demographic and economic development of mankind. ESD is sometimes defined as conceptually overlapping with and sometimes as separate from the concept of global citizenship education (GCED) (Chung & Park, 2016; Kopnina & Meijers, 2014).

In recognition of the importance of this learning area, the International Association for the Evaluation of Educational Achievement (IEA) has been conducting cross-national surveys dedicated to the research of civic and citizenship education for over 50 years. Relatively recently IEA established the International Civic and Citizenship Education Study (ICCS) with the first data collection occurring in 2009 (Schulz et al., 2010), followed by a second implementation in 2016 (Schulz et al., 2018). Each cycle of ICCS collects data on students' civic knowledge, attitudes, and engagement, and encompasses continuing aspects of interest to measure changes over time as well as emerging topics that respond to new developments of relevance for this learning area.

The third cycle of ICCS (2022) set out to address aspects related to global citizenship, sustainable development, migration, changes to traditional political systems, and the use of digital technologies for civic engagement, while also continuing to monitor changes over time using common measures across cycles. For the first time, ICCS 2022 offered the option of an

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online delivery, which was chosen by about three quarters of participating countries and included specifically designed test items that used the possibilities of a digital assessment to enhance measurement of students' civic knowledge and understanding.

During the ICCS 2022 cycle there were global developments that had considerable impact on the implementation of the survey. The outbreak of the COVID-19 pandemic made conducting a field trial particularly challenging and led to considerable delays caused by school closures or changes to the way students were taught (for example, through different scheduling of classes). With the difficulties national study centers faced in implementing the data collections, the originally planned schedule was changed so that the main survey commenced in the Northern Hemisphere in early 2022, while the Southern Hemisphere data collection was conducted in late 2022. Further, national centers encountered considerable difficulties in convincing schools and teachers to participate in the survey, having a huge impact on the challenge of meeting IEA sample participation goals and requirements.

While the COVID-19 pandemic made it much more challenging to implement the ICCS 2022 survey, it inevitably also impacted students' civic-related learning, given that in many countries learning was disrupted or changed by measures implemented to contain the pandemic at schools (see Meinck et al., 2022; OECD [Organisation for Economic Co-operation and Development], 2021; Schleicher, 2020). In close collaboration with the national centers, the international research team for ICCS 2022 reacted to this development by including some newly developed items in the main survey student questionnaire designed to measure students' views of restrictions in national emergencies as well as their trust in scientists.

Another factor that warrants consideration when interpreting the outcomes of this survey concerns the Russian invasion of Ukraine that started on 24 February 2022. This occurred prior to most participating countries commencing their main survey data collection. The event is expected to have led to a heightened sense of insecurity, being the first military conflict in Europe in more than two decades. In addition, there was a large influx of refugees from Ukraine in many European countries.

The ICCS 2022 international research team, together with national centers in 24 participating countries and benchmarking entities,[1] developed instruments to measure students' home background, school contexts, civic knowledge, attitudes, and engagement, and collect contextual data from teachers, schools, and national experts. Further, regional instruments for European and Latin American countries collected additional information about aspects of student attitudes and engagement that were deemed as particularly relevant in these geographic regions. The results of the ICCS field trial were used to inform the selection of instrument content for the ICCS main survey.

Between February and September 2022, the main survey gathered data from 82,000 students and 40,000 teachers at about 3400 schools. Incorporated into the ICCS main survey was a *mode effect study* which allowed for data collected using the paper-based instruments to be compared with data collected on computer from equivalent groups of students. This was completed by about 15,000 students from 11 countries that had opted for computer-based delivery and participated in ICCS 2016. The data collected in the *mode effect study* were used to evaluate the impact of delivery mode on students' responses and to determine the need for, and magnitude of, any corresponding adjustments to students' results depending on whether students completed the instruments on paper or on computer. This was done to support the fair reporting of ICCS results across countries, regardless of the delivery mode used within each country. Detailed descriptions of the scaling, equating, and reporting procedures for test items and student civic knowledge achievement will appear in the ICCS 2022 technical report (Schulz et al., forthcoming).

1.2 Background and Purpose of the Study

IEA has an impressive track record of studying civic and citizenship education from a cross-national perspective. In 1971, as part of its six-subject study, IEA conducted the first study of civic education, with data from 10 countries (Torney et al., 1975; Walker, 1976). Almost three decades later, in 1999, the IEA Civic Education Study (CIVED) was implemented with data from 28 countries (Torney-Purta et al., 2001). This was preceded by a qualitatively oriented case study offering insights into the diversity of approaches to this learning area in 24 countries (Torney-Purta et al., 1999), followed by an additional survey of upper-secondary students in 16 countries implemented in 2000 (Amadeo et al., 2002).

A decade after the implementation of CIVED 1999, IEA established ICCS with a first data collection in 38 countries in 2009 (Schulz et al., 2010). ICCS 2009 included many conceptual links to its predecessor, while broadening its framework to include a wider range of content. ICCS 2009 also placed greater emphasis on participatory aspects of citizenship and

[1]The German states *(Länder)* North Rhine-Westphalia and Schleswig-Holstein participated in ICCS 2022 as benchmarking entities.

expanded the measurement of reasoning and applying in the acquisition of civic knowledge and understanding (Schulz et al., 2008). While CIVED 1999 used a single test form and selected classroom teachers from up to three civic-related subjects that were defined by national centers, the test design for ICCS 2009 included a balanced rotated design that allowed for the inclusion of a broader range of cognitive aspects, as well as the collection of contextual data based on a random sample of all teachers teaching at the target grade. The latter change was applied in recognition of the importance of considering the whole school environment. However, the teacher survey also includes an optional questionnaire section that is completed only by teachers of civic-related subjects and allows for the collection of data focused on civic teaching.[2] Given these modifications, there were only limited possibilities of reviewing changes over time between CIVED and ICCS 2009 (see Schulz, 2021).

ICCS 2016 included a wide range of common item material (both in the test and questionnaires) that allowed measuring changes over time for a broad range of aspects related to contextual aspects as well as students' civic knowledge, attitudes, and engagement. However, ICCS 2016 also included new material developed to broaden the scope of the study and gather data on new areas of content related to environmental sustainability, social interaction at school, and the use of social media for civic engagement. In addition, economic awareness and the role of morality in civic and citizenship education were included as aspects for more explicit acknowledgement in the framework and instruments (see Schulz et al., 2016).

For ICCS 2022, one major change was the decision to offer countries the option of a computer-based delivery for the student survey, with the perspective of transitioning to this assessment mode for all future ICCS data collections. Eighteen participants opted for this new mode while six countries decided to continue delivering ICCS student test and questionnaire material on paper. An important aspect of computer-based delivery was the development of three clusters with test item material that made use of the possibilities for measurement that are only available in a digital mode.

While ICCS 2022 instruments included many measures from ICCS 2009 and 2016 to collect data about changes over time, the survey also set out to address new aspects or considerably broaden the measurement of aspects included in previous cycles. To this end, during the first stage of developing the assessment framework for this cycle, following extensive discussions and deliberations with experts and national study centers, we identified five focus areas for ICCS 2022. Each focus area was developed in response to recent developments that were viewed as relevant to the area of civic and citizenship education.

The following focus areas were identified to broaden the scope of ICCS for this cycle:

- *Sustainability*: ESD, while frequently treated in conjunction with GCED, has received increased attention as an educational area of interest in view of many pre-existing and newly emerging demographic, environmental (including the potential impact of climate change), economic, and social challenges (see, for example, Bourn et al., 2017; Bromley et al., 2016; Wals & Benavot, 2017). In spite of a notable lack of consensus about its conceptual definition (see, for example, Kopnina & Meijers, 2014), national curricula increasingly include aspects related to this area of teaching (Benavot, 2014). While the ICCS 2016 framework already included *environmental sustainability in civic and citizenship education* as one of three areas identified for inclusion to broaden the scope of the second ICCS cycle, ICCS 2022 incorporated the broader notion of sustainability. This encompasses content associated with environmental, social, and economic sustainability, and increased the emphasis on ESD and the amount of ESD-related content compared to previous cycles of ICCS.
- *Engagement through digital technologies*: Over the last two decades, there has been an enormous increase amongst young people in their interactions via digital communication and social media. Using digital technologies for engagement has offered new possibilities for mobilization, organization, and interaction of wider audiences and, in particular, of young people (Brennan, 2018), including the formation of digital communities (Cho, 2020). There is evidence that using social media and digital communication has profoundly impacted and enhanced civic engagement as well as information flows, both in positive and negative ways (Kahne et al., 2012; Kahne & Bowyer, 2019; Middaugh et al., 2016; Rainie et al., 2012). While ICCS 2016 concentrated on digital social media as a means for engagement, ICCS 2022 identified the broader notion of civic engagement through digital technologies as a focus area.
- *Diversity*: As result of recent economic, demographic, and technological changes, there are now increasing levels of migration with growing diversity in many countries (OECD, 2012; Sandoval-Hernández et al., 2018; United Nations, Department of Economic and Social Affairs, Population Division, 2017). This trend has affected schools and other educational institutions by posing obstacles (see Malak-Minkiewicz & Torney-Purta, 2021, for examples of the effects on civic and citizenship education in some countries), but also providing opportunities for building multicultural and

[2]Teachers who report teaching a (nationally defined) subject related to civic and citizenship education are administered additional specific questions about this learning area.

inclusive schools (Banks, 2020; Banks & McGee Banks, 2009; Griffith et al., 2016). While previous cycles of ICCS already addressed some issues related to migration, ICCS 2022 set out to assess a broader range of aspects related to diversity including information about how schools and civic and citizenship education accommodate increasing diversity.

- *Young people's views of the political system*: Recent years have witnessed growing concerns about a global "democratic recession" (Diamond, 2015, 2021) that are connected to a surge in authoritarian government practices and extreme political movements. These developments appear to have resulted in instability in established democratic systems (Boogards, 2017; Mair, 2002), often in conjunction with growing alienation among young voters (Estellés & Castellví, 2020; Sant, 2019). The recent COVID-19 pandemic has also highlighted challenges to forms of democratic governments in view of restrictions of personal freedom and divisions in society about these responses (Marzocchi, 2020). While previous cycles have included many aspects concerned with young people's political views (such as trust in civic institutions), ICCS 2022 developed further measures to assess beliefs among lower-secondary students related to this focus area.

One further area was also identified as deserving more explicit recognition given that it is an overarching area related to aspects already present in ICCS and to the focus areas listed above:

- *Global citizenship*: GCED has received considerable attention in recent debates about global education targets given the growing cross-national interconnectedness and the globalization of political, social, economic, and environmental issues (Veugelers, 2011). While definitions of GCED vary (Oxley & Morris, 2013; Parker & Fraillon, 2016; Pashby et al., 2020), many aspects of the conceptual content associated with GCED have been included in IEA studies relating to civic and citizenship education for over 40 years (see Schulz et al., 2008, 2016; Torney et al., 1975; Torney-Purta et al., 2001). For ICCS 2022, GCED-related content was more explicitly recognized within its assessment framework and there was an increased emphasis in its assessment material.

1.3 Participating Countries, Study Design, and Implementation

Twenty-two countries and two benchmarking entities (the German states of North Rhine-Westphalia and Schleswig-Holstein) participated in ICCS 2022[3] (Fig. 1.1). Most participants were from Europe (21). Two Latin American countries (Brazil and Colombia) and one Asian country (Chinese Taipei) were part of ICCS 2022.

As is the case with other IEA studies, participation in ICCS 2022 was open to all IEA member countries and affiliates. In this study cycle, different factors (largely consequences of the COVID-19 pandemic) had negative effects on country participation. Initial interest in participation was from a broader range of countries than ultimately implemented the survey, and some countries withdrew their intention to participate at later stages of its developments. In past cycles, there were higher levels of participation in the Latin American and East Asian regions.

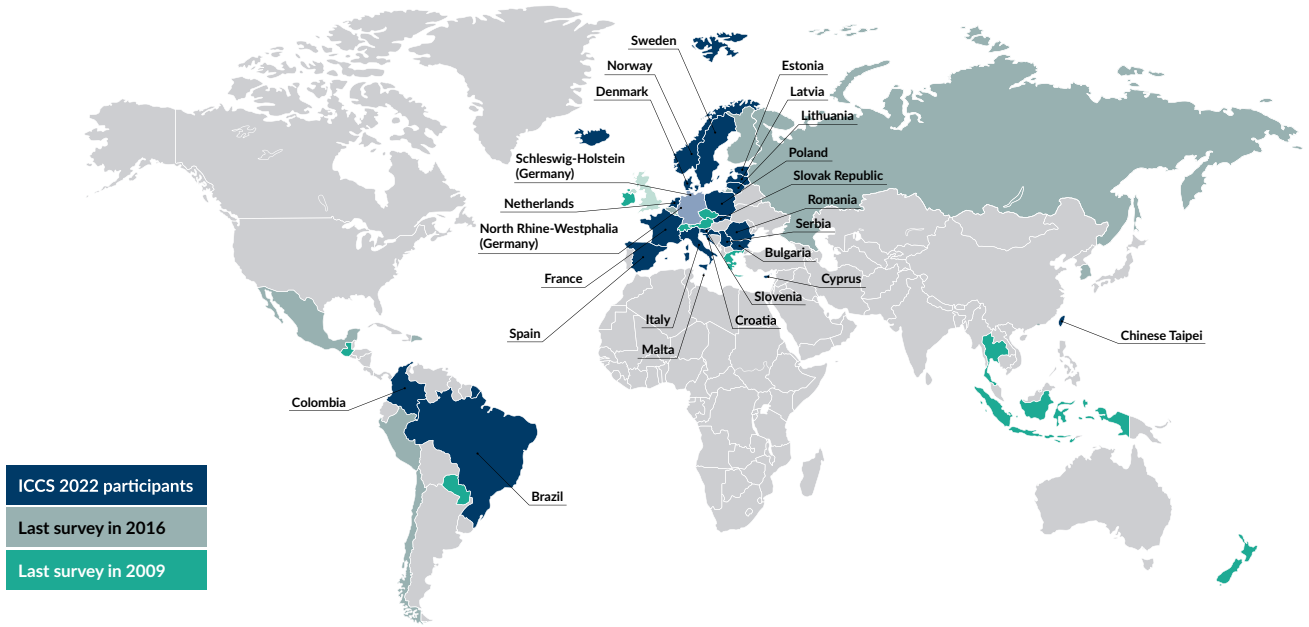
The student and teacher population definitions and sampling methods for ICCS 2022 were the same as those used in ICCS 2009 and 2016. The ICCS student population is defined as all students in Grade 8 (students approximately 14 years of age), provided that the average age of students in this grade was 13.5 years or above at the time of the assessment. If the average age of students in Grade 8 was below 13.5 years, Grade 9 became the target population[4]

The population for the ICCS teacher survey was defined as all teachers teaching regular school subjects to students enrolled in the country's target grade at each sampled school. The teacher population included only those teachers who were teaching the target grade during the testing period and who had been employed at school since the beginning of the school year.

The samples were designed as stratified two-stage cluster samples. During the first stage of sampling, PPS procedures (probability proportional to size as measured by the number of students enrolled in a school) were used to sample schools within the participating countries. The second stage consisted in applying random selection procedures to select intact classrooms (for the student survey) and individual teachers at the target grade (for the teacher survey). The numbers required

[3]In this report, unless otherwise specified, the term "countries" is used refer to both entire countries as well as subnational entities within countries that participated in the study (such as the German benchmarking participants North Rhine- Westphalia and Schleswig-Holstein).

[4]Malta assessed Grade 9 students because the average age of Grade 8 students in that country is below 13.5 years. In order to assess a similar age group as in other Nordic countries, Norway deviated from the internationally defined target population for ICCS 2016 and 2022, and assessed Grade 9 instead of Grade 8. Consequently, all Norwegian results in this report, and the previous, are presented with an annotation. Norway's inclusion of Grade 9 as an additional population in ICCS 2009 made it possible to compare the 2009 and 2016/2022 results for Norway for the chosen target population.



Participating countries

Bulgaria	Croatia	France	Malta	Poland	Slovak Republic
Brazil	Cyprus	Italy	Netherlands	Romania	Slovenia
Chinese Taipei	Denmark	Latvia	North Rhine-Westphalia*	Schleswig-Holstein*	Spain
Colombia	Estonia	Lithuania	Norway	Serbia	Sweden

**German benchmarking participants*

Note: Countries where only sub-entities participated are shown in a lighter shade of the corresponding color.

Fig. 1.1 Map of participating countries in ICCS 2022 and previous cycles

in the samples to achieve the necessary precision were estimated based on national characteristics. However, as a guide, the sampling team asked each country to plan for a minimum sample size of 150 schools.[5]

In addition, 11 countries that opted for a computer-based assessment and had participated in ICCS 2016, administered the student instrument on paper to an additional sample of 1500 students as part of the bridging study to investigate and adjust for mode effects (see further details in Schulz et al., forthcoming). The bridging samples were either based on additional classrooms in sampled schools or separate and representative school samples.

The following instruments were administered as part of the ICCS 2022 survey:

- *The international student test* consisted of items measuring students' civic knowledge and ability to analyze and reason on topics related to civic and citizenship education. The instrument was either administered on paper or using the computer-based delivery platform. While computer-based tests included 14 item clusters (including three clusters with computer-enhanced item material), paper-based tests administered in countries that chose the paper mode included 11 item clusters (with items that were common across modes). Eight of the common item clusters were used to assess students that participated in the bridging study.
- *The international student questionnaire* consisted of items measuring student background variables, school contexts, and student perceptions and beliefs. The instrument was either administered on paper or using the computer-based delivery platform.
- *Regional student instruments* consisted of questionnaire-type items. These instruments were only administered in countries participating in these (optional) European and Latin American data collections. The instruments were either administered on paper or using the computer-based delivery platform.
- *The teacher questionnaire* gathered information about teacher background variables and teachers' perceptions of factors related to the context of civic and citizenship education in their respective schools. It was administered to selected teachers teaching any subject in the target grade, while an additional (optional) section was targeted at teachers

[5]In Malta, where there are fewer than 150 schools, the survey was conducted in all schools, either for the core survey using computer-based assessment, or for the bridging study using paper-based delivery.

teaching civic-related subjects (as defined by national centers). As in previous ICCS cycles, participating national centers also had the option of offering an online administration of this questionnaire.
- *The school questionnaire* captured school characteristics and school-level variables related to civic and citizenship participation as provided by principals (or designates) at sampled schools. As with the teacher questionnaire, the school questionnaire was either completed on paper or online by respondents in countries participating in the option of an online delivery.
- *The national contexts survey* was completed online by national center experts. It was designed to gather data about the structure of the education systems, the status of civic and citizenship education in the national curricula, and recent developments. The data obtained from this survey will supplement published information sources about countries and their education systems to assist with the interpretation of the results from the student, school, and teacher questionnaires, and in describing national contexts for civic and citizenship education.

Fourteen of the countries that participated in ICCS 2022 had also participated in ICCS 2016, while four countries (Cyprus, Poland, the Slovak Republic, and Spain) had participated in ICCS 2009 but not in ICCS 2016. Of the student test items used in ICCS 2022, almost half were secure items from ICCS 2016. The inclusion of these items meant that student achievement in ICCS 2022, 2016, and 2009 could be reported on the same scale and compared across cycles. The ICCS 2022 questionnaire instruments (for students, teachers, schools, and national centers) also included selected sets of questions from the corresponding ICCS 2016 instruments, thus allowing for comparisons across the cycles in these selected areas.[6]

This current report presents comparisons over time only for those countries where data collection met the technical standards associated with sampling, instrument preparation, field operations, scoring, and data management in the relevant cycles for comparison. This stipulation means that reporting of changes over time does not cover all relevant ICCS 2022, 2016 and 2009 participants for all questions and instruments. The number of countries included in comparisons of data collected by the various questions and instruments consequently vary.

The ICCS 2022 main survey data collection started in late February 2022 in the Northern Hemisphere and ended with the data collection in Brazil (as the only participating country with a Southern Hemisphere calendar for all schools) in September 2022. While most countries met IEA sample participation requirements for the student survey, two countries (Brazil and Denmark) and the benchmarking participant Schleswig-Holstein (Germany) failed to meet these requirements. For the teacher survey, there were a much lower number of 13 countries that met IEA sample participation requirements, while nine countries and both benchmarking participants had participation rates below the established thresholds.[7] It is important to recognize that the recruitment of sampled schools by national centers was extremely difficult in many countries following the recent disruptions of schooling as a consequence of the COVID-19 pandemic. Furthermore, in some instances there were also reports about possible data loss due to technical issues with the online delivery of the teacher survey.

In keeping with established IEA standards, results from ICCS 2022 are presented in this report in a way that distinguishes between national data from surveys meeting IEA sample participation requirements and those that did not. By reporting data from surveys not meeting participation requirements in a different section of the reporting tables, readers are advised to interpret the corresponding findings with due caution regarding the possible impact of sample participation bias. Further, comparisons across different cycles of ICCS are only presented for national data where sample participation requirements are met for all data points.

1.4 Research Questions

For ICCS 2022, we developed key research questions that are related to students' civic knowledge, their dispositions to engage in and their attitudes related to civic and citizenship issues, as well as contexts in this learning area. Each of the following general research questions (RQs) relate to a subset of specific research questions that was addressed in ICCS 2022. The research questions are also reflected in the structure of content-related chapters that represent the main body of this international report.

[6]Details of the equating procedures enabling comparison of these results across cycles will be provided in the ICCS 2022 technical report (Schulz et al., forthcoming).

[7]In the German benchmarking participant Schleswig-Holstein, teacher participation was extremely low so that their data could not be included in this report.

RQ 1 *How is civic and citizenship education implemented in participating countries?* This research question is concerned with the national contexts for civic and citizenship education and includes the following specific research questions:

(a) *What are the aims and principles of civic and citizenship education in each participating country?* Analyses of ICCS 2022 data focus on information from the national contexts survey and published sources about the background and intentions behind civic and citizenship curricula in participating countries.
(b) *Which curricular approaches do participating countries choose to provide in civic and citizenship education?* Analyses of ICCS 2022 data focus on different types of civic and citizenship education implemented in participating countries and are based on national contexts survey data, published sources, and teacher survey and school survey data.
(c) *What changes and/or developments in this learning area can be observed since the 2009 and 2016 cycles?* Analyses of ICCS 2022 data include data from countries participating in previous ICCS surveys and focus on reforms and changes in the national contexts for civic and citizenship education.
(d) *How do education systems, schools, and educators perceive the role of civic and citizenship education across participating countries?* Analyses address how teachers and school principals perceive, and how national curricula and policies state, the role that schools and teachers should play in preparing young people for citizenship.

RQ 2 *What is the extent and variation of students' civic knowledge within and across participating countries?* Analyses to address this research question primarily focus on student test data and encompass the following specific research questions:

(a) *Are variations in civic knowledge associated with student characteristics and background variables?* Analyses of ICCS 2022 data investigate the influence of student gender, socioeconomic indicators, and other background variables on civic knowledge.
(b) *What contextual factors explain variation in students' civic knowledge?* Analyses of ICCS 2022 data provide some information about the relationship between contextual variables at different levels with variation in students' civic knowledge.
(c) *What changes in civic knowledge have occurred since the previous survey cycles?* Analyses of ICCS 2022 data are limited to those countries participating in the corresponding ICCS surveys and provided comparable measures of civic knowledge over time.

RQ 3 *What is the extent of students' engagement in different spheres of society and which factors within or across countries are related to it?* This research question is related to indicators of student engagement and encompasses the following specific research questions:

(a) *What beliefs do students hold regarding their own capacity to engage and the value of civic participation?* Analyses of ICCS 2022 data focus on student perceptions of civic engagement.
(b) *What is the extent and variation of students' civic participation in and out of school?* Analyses of ICCS 2022 data focus on student reports on their past and current involvement in civic-related activities, as well as their communication about civic-related issues (including engagement with new electronic media).
(c) *Which expectations do students have regarding civic and political participation in the future?* Analyses of ICCS 2022 data address students' behavioral intentions regarding different forms of civic or political participation.
(d) *What changes in the extent and forms of student engagement can be observed since the previous ICCS cycles?* Analyses of ICCS 2022 data include data from those countries participating in the corresponding ICCS surveys and engagement indicators included in both studies.

RQ 4 *What beliefs do students in participating countries hold regarding important civic issues in modern society and what are the factors influencing their variation?* This research question is related to various student affective measures and encompasses the following specific research questions:

(a) *What are students' beliefs regarding the importance of different principles underlying a democratic society?* Analyses of ICCS 2022 data focus on students' value beliefs regarding democracy and citizenship, as well as issues related to concerns about global citizenship and sustainable development on a worldwide scale.
(b) *What attitudes do students hold toward civic institutions and society?* Analyses of ICCS 2022 data address the way students perceive society in general, its rules and institutions.
(c) *What are students' perceptions of social cohesion and diversity in the societies they live in?* Analyses of ICCS 2022 data are related to students' acceptance of equal rights and opportunities for all social groups, acceptance of diversity, and peaceful coexistence.
(d) *What changes in student beliefs can be observed since previous ICCS cycles?* Analyses in the report include only data from those countries participating in the corresponding ICCS surveys and affective measures included in both studies.

RQ 5 *How is schooling in participating countries organized with regard to civic and citizenship education and what is its association with students' learning outcomes?* This research question is related to the ways schools (within their community context) provide spaces for civic and citizenship education, and encompasses the following specific research questions:

(a) *To what extent do schools in participating countries have participatory processes in place that facilitate civic engagement?* Analyses are based on student, teacher, and school survey indicators regarding the school climate for participation at school and civic engagement.

(b) *To what extent do schools and communities interact to foster students' civic engagement and learning?* Analyses of ICCS 2022 data include student, teacher, and school survey data related to the schools' interactions with the wider community (from local communities to interaction via web-based media) as well as opportunities for students' active civic involvement.

(c) *To what extent do schools offer programs or activities related to civic learning and experiences (including activities related to global awareness, environmental sustainability, peaceful coexistence, engagement at local, national, and global levels, and responsible use of social media)?* Analyses of ICCS 2022 data include student, teacher, and school survey data.

Not all of these aspects are included in the analysis results presented in this international report. However, subsequent secondary research will provide more comprehensive responses to each of these and other potential research questions.

1.5 The ICCS 2022 Assessment Framework

The assessment framework for ICCS 2022 (Schulz et al., 2023) provided the conceptual foundation for the international instrumentation underpinning the data collection presented in this report. It identified and defined those aspects of cognitive and affective-behavioral content that were considered important learning outcomes of civic and citizenship education, as well as contextual factors that are setting the context for students' civic learning. It should be noted that the way students develop civic knowledge and understanding, as well as affective-behavioral dispositions towards civic and citizenship issues, potentially depends on many factors, including those beyond the learning environment at schools (see Amnå et al., 2009; Neundorf et al., 2016; Pancer, 2015; Pancer & Pratt, 1999; Wray-Lake, 2019).

The ICCS 2022 assessment framework includes the *civic knowledge framework* that describes aspects of students' civic knowledge in terms of the content and the cognitive processes associated with it that are measured in the student test items (Table 1.1). It distinguishes the following *content domains* that describe areas related to civic and citizenship education about which individuals may have developed knowledge and understanding:

I. *Civic institutions and systems* (three subdomains): (i) State institutions, (ii) economic systems, and (iii) civic society.
II. *Civic principles* (five subdomains): (i) Equity, (ii) freedom, (iii) rule of law, (iv) sustainability, and (v) solidarity.
III. *Civic participation* (three subdomains): (i) Decision-making, (ii) influencing, and (iii) community participation.
IV. *Civic roles and identities* (three subdomains): (i) Citizens, (ii) civic self-image, and (iii) civic connectedness.

The civic knowledge framework further distinguishes between different processes involved in understanding complex sets of factors influencing civic actions and planning for and evaluating strategic solutions and outcomes. It differentiates between the two following *cognitive domains*:

I. *Knowing* refers to the learned civic and citizenship information that students use when engaging in the more complex cognitive tasks that help them make sense of their civic worlds.
II. *Reasoning and applying* refers to the ways in which students use civic and citizenship information to reach conclusions that are broader than the contents of any single concept and to make use of these in real-world contexts.

The *civic attitudes and engagement framework* outlines affective-behavioral constructs that are measured with student questionnaire items included in international and regional instruments. These are regarded as important learning outcomes and have a similar standing in the process of development, analysis, and reporting as cognitive measures of students' civic knowledge. Student attitudes, perceptions, and behaviors relevant to civic and citizenship issues are organized according to the following two affective-behavioral areas (Table 1.2):

I. *Attitudes* (for example, judgments in relation to ideas, people, objects, events, or situations) related to the following three subareas: (i) Civic principles, (ii) civic issues and institutions, and (iii) civic roles and identities.

Table 1.1 Coverage of cognitive and content domains in ICCS 2022 test

Content domain	Cognitive domain				Total
	Civic institutions and systems	Civic principles	Civic participation	Civic roles and identities	
Knowing	9	22	5	6	42
Reasoning and applying	21	29	PBA: 22 CBA: 37	7	PBA: 79 CBA: 94
Total	30	51	PBA: 27 CBA: 42	13	PBA:121 CBA: 136

Notes:
CBA = computer-based assessment; PBA = paper-based assessment.
Where appropriate, we distinguish between CBA and PBA as the CBA included three clusters of items specifically designed to measure content related to the content domain civic participation using features only available in a digital environment. Where not displayed separately, item numbers are equal for CBA and PBA.

Table 1.2 Coverage of affective-behavioral areas and subareas in the ICCS 2022 student questionnaires

Affective-behavioral areas and subareas	Student questionnaire		
	International	European	Latin American
Attitudes			
Attitudes toward civic principles	24	24	30
Attitudes toward civic issues and institutions	49	41	7
Attitudes toward civic roles and identities	13	18	8
Engagement			
Experiences with engagement	17	-	-
Dispositions toward engagement	8	-	-
Expected future engagement	26	-	-

Notes:
Optional items are not included.
- Domain is not included in regional questionnaire.

II. *Engagement* (for example, interest in, and expectations of, civic engagement through civic action and future political participation) related to the following three subareas: (i) Experiences with engagement, (ii) dispositions toward engagement, and (iii) expected future engagement.

When reporting cognitive or affective-behavioral civic learning outcomes, it is important to consider the context in which these have developed. Young people acquire or develop their civic knowledge and understanding, dispositions toward engagement, and attitudes toward important topics in society through a number of activities and experiences that take place in the home, school, classroom, and wider community. This conceptual view is influenced by and consistent with theories of ecological systems (Bronfenbrenner, 2004; Ettekal & Mahoney, 2017; Neal & Neal, 2013) and situated cognition (Anderson et al., 2000; Barsalou, 2016), and it emphasizes the relevance of considering contextual information in addition to the measurement of students' cognitive and affective-behavioral learning outcomes.

As in previous ICCS frameworks, the *contextual framework* for ICCS 2022 (Fig. 1.2) distinguishes the following four levels at which factors influencing civic learning outcomes may be located:

- *The context of the wider community* is multi-layered and comprises the broader context within which schools and home environments operate (ranging from local to global levels) with relevant factors found at local, regional, and national levels, considering also the importance of the supra-national level (for example, for member countries of the European Union).

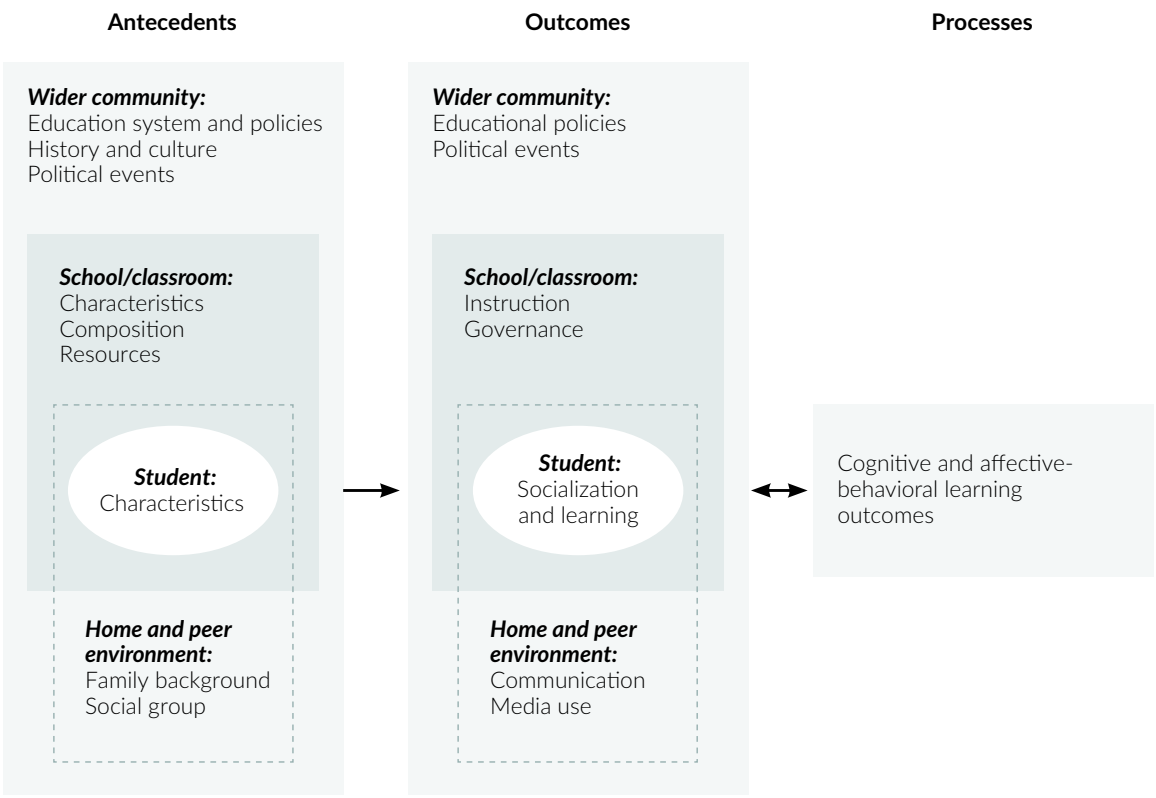


Fig. 1.2 Contexts for the development of learning outcomes related to civic and citizenship education in ICCS 2022

- *The context of schools and classrooms* comprises factors related to teaching and learning, the school culture, and the general school environment.[8]
- *The context of home and peer environments* comprises factors related to the home background and the immediate social out-of-school environment of the student (for example, peer-group activities).
- *The context of the individual* refers to the individual characteristics of the student (for example, their gender or educational aspirations).

Further, the ICCS 2022 contextual framework distinguishes the following types of variables:

- *Antecedents* are defined as pre-existing variables that shape how student learning and acquisition of civic-related understandings and perceptions takes place. However, factors are level-specific and may be influenced by antecedents or processes at a higher level (for example, civic-related training of teachers may be affected by historical factors and/or policies implemented at the national level).
- *Processes* are defined as those variables that are related to civic-related learning and they are constrained or enabled by antecedents. They are also possibly influenced by variables relating to the higher levels of the multilevel structure.

It should be noted that there could also be reciprocal associations between processes and outcomes variables; for example, civic learning processes would be expected to be positively influenced by having higher levels of civic knowledge among students in a classroom. While the contextual framework for ICCS posits unidirectional relationships between antecedents and process-related variables, from a long-term perspective one might also expect effects from outcomes on antecedents (for example, through the provision of increased educational resources to schools with lower learning progress).

Different instruments administered to students, teachers, schools, and national experts as part of ICCS 2022 provided data on different types of variables located at varying levels (Table 1.3). The national contexts survey and data from published

[8]Due to the sampling design for ICCS, school level and classroom level cannot be disentangled. Generally, only one classroom was selected within each sampled school.

Table 1.3 Mapping of variables to contextual framework (examples)

Level of ...	Antecedents	Processes	Outcomes
Wider community	*NCS and other sources:* Democratic history Structure of education	*NCS and other sources:* Intended curriculum Political developments	*StT, StQ:* Civic knowledge, attitudes, and engagement
School/classroom	*ScQ and TQ:* School characteristics Resources	*StQ, ScQ and TQ:* Implemented curriculum Policies and practices	
Student	*StQ:* Gender Age	*StQ:* Civic learning Practiced engagement	
Home and peer environment	*StQ:* Parental socioeconomic status Language used at home Country of birth	*StQ:* Family communication Communication with peers Media information	

Note:
NCS = national contexts survey; ScQ = school questionnaire; StT = student test; StQ = student questionnaire; TQ = teacher questionnaire.

sources provide information at the level of the wider community, however, teacher and school data may also contribute to the description of national contexts. While the teacher and school questionnaires are the primary sources for collecting data about the school and classroom contexts, the student questionnaire may also provide relevant information (for example, regarding the school climate). The latter instrument, apart from measuring civic attitudes and engagement, is the main information source about student background, home, and peer contexts.

1.6 Report Outline

This publication contains the first report on findings from ICCS 2022, six years after the last cycle of this study and 13 years after its first implementation. It will be complemented by a regional European report, a technical report, and an ICCS international database accompanied by a user guide. The six content-related chapters following this introductory chapter are broadly related to different ICCS 2022 research questions, while the last chapter concludes the report with a more general discussion of outcomes and implications.

Chapter 2 mainly addresses RQ 1 (*How is civic and citizenship education implemented in participating countries?*) and explores how different education systems define aims and principles for civic and citizenship education, which curricular approaches they use, what changes have occurred since the previous cycles of ICCS, and how the role of this learning area is perceived by education systems, schools, and educators. The chapter includes data from the national contexts survey and teacher and school questionnaires.

Chapter 3 mainly addresses RQ 2 (*What is the extent and variation of students' civic knowledge within and across participating countries?*). It looks at variations of civic knowledge across and within countries, relationships with background variables, and changes since the previous cycle in 2016. Prior to a presentation of results, it explains how civic knowledge was measured, providing examples of test items, and presents the levels established in previous cycles. It also presents the results at the country level and changes in civic knowledge since 2016, and compares civic knowledge across population subgroups.

Chapter 4 focuses on RQ 3 (*What is the extent of students' engagement in different spheres of society and which factors within or across countries are related to it?*). It includes a discussion of the conceptual background to, and prior research on, civic engagement followed by a presentation of results on selected topics from the ICCS 2022 student questionnaire.

Chapter 5 focuses on RQ 4 (*What beliefs do students in participating countries hold regarding important civic issues in modern society and what are the factors influencing their variation?*). It includes a section on conceptual background and

prior research followed by the presentation of ICCS 2022 results for selected topics that is based primarily on analyses of student questionnaire data.

Chapter 6 mainly addresses RQ 5 (*How is schooling in participating countries organized regarding civic and citizenship education and what is its association with students' learning outcomes?*). It includes a section on conceptual background and prior research followed by the presentation of ICCS 2022 results on selected topics that are based on data from the school, teacher, and student questionnaires.

Chapter 7 is related to various research questions and contains results from multivariate analyses. Following a section on the conceptual background, it presents results from multilevel analyses of civic knowledge as well as single-level multiple regression analysis of students' expected electoral participation and active political participation.

Chapter 8 includes a summary of main findings that links them to prior research and puts them into a conceptual context. It further discusses implications for policy and practice and provides an outlook into future research into civic and citizenship education.

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National Contexts for Civic and Citizenship Education

2

Chapter Highlights

The ICCS 2022 countries vary in their educational, political, and economic characteristics.

- The populations of participating countries range from very small to very large. (Table 2.1)
- All participating countries rank as high or very high on the Human Development Index but gross domestic product per capita varies considerably. (Table 2.1)
- The legal age of voting was almost always 18 and voting tended to be compulsory (with some exceptions) across participating countries. (Table 2.2)
- Voter turnouts at the most recent legislative election varied across countries, and no country had true gender equity in parliament representation. (Table 2.2)

There was great variation in how countries ranked on the Liberal Democracy Index and the Corruption Perceptions Index. (Table 2.2)

- The populations of all countries were highly literate, but there was a lot of variation regarding public expenditure on education and the proportion of the population using the internet. (Table 2.3)
- There are differences in the governance and autonomy of schools across participating countries.
- In most education systems, the governance of school education rested either at the national level, or there was a balance between the national and state/province level. (Table 2.4)

There were differences between countries as to the level of autonomy individual schools have with different types of decision-making processes. (Table 2.5)

- In the majority of countries, schools had a large degree of autonomy in planning different aspects of civic and citizenship education. (Table 2.6)
- There are similarities and differences in how education systems deliver civic and citizenship education at the target grade.
- In most countries, civic and citizenship education is integrated in subjects related to human/social sciences and/or into all subjects at school, while in others it is taught as a separate subject. (Table 2.7)
- Results from the perspective of school principals highlighted the coexistence of different approaches to civic and citizenship education at the school level. (Table 2.8)

The approach for civic and citizenship education at the target grade varies across a range of topics.

- The learning objectives are similar across most countries, with more commonality for some topics than for others. (Table 2.9)

(continued)

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- In the majority of countries, principals considered the promotion of students' critical and independent thinking, promotion of students' knowledge of citizens' rights and responsibilities, and promotion of students' respect for and safeguard of the environment as the three most important aims for civic and citizenship education. (Table 2.10)
- Similar results were obtained from the perspective of teachers, who selected the promotion of students' independent and critical thinking, promotion of students' respect for and safeguard of the environment, and the development of students' skills and competencies in conflict resolution as the three most important aims for civic and citizenship education. (Table 2.11)
- In education systems, students in the target grade are expected to be formally assessed and receive formal reports in civic and citizenship education, while expectations that schools inform parents of the aims and approaches of civic and citizenship education in the classroom are less common. (Table 2.12)
- Across education systems, civic and citizenship education is most often reported as mandatory for pre-service education and offered as part of in-service education for teachers of human/social sciences. (Table 2.13)
- Participation in training courses during pre-service and/or in-service training is most frequently reported for *responsible internet use and conflict resolution*, while *voting and elections* is, on average, less frequently mentioned. (Table 2.14)
- Majorities of teachers across countries felt "well" or "quite well" prepared to teach most of the civic and citizenship education topics and skills. (Table 2.15)

2.1 Introduction

As stated in the International Civic and Citizenship Education Study (ICCS) 2022 assessment framework (Schulz et al., 2023), it is important for any study of civic-related learning outcomes and civic engagement to consider the contexts in which civic and citizenship education occurs. Among the four levels of overlapping contexts identified in the ICCS 2022 framework, this chapter focuses on factors related to the *context of the wider community*, which comprises the wider context within which schools, homes, and peer environments are situated (see Chap. 1).

In this chapter, we explore the national contexts of civic and citizenship education in the 24 countries and benchmarking entities that participated in ICCS 2022. This chapter addresses Research Question 1: *How is civic and citizenship education implemented in the participating countries?* This question is accompanied by a subset of four questions:

(a) *What are the aims and principles of civic and citizenship education in each participating country?*
(b) *Which curricular approaches do participating countries choose to provide civic and citizenship education? For example, is the learning area taught as a separate subject or is it integrated in other subjects and/or school activities?*
(c) *What changes and/or developments in this learning area can be observed since the 2009 and 2016 cycles?*
(d) *How do education systems, schools, and educators perceive the role of civic and citizenship education across participating countries?*

We start by providing an overview of the sources of data used in the tables for this chapter, with a particular focus on the national contexts survey and how it was developed. We will then discuss the education systems and national contexts of the participating countries. The chapter will examine different civic and citizenship curricula and approaches that are being used in these countries. Finally, we will conclude by discussing the contexts in which teachers are being prepared to teach civic and citizenship education.

2.2 Data Sources on National Contexts

There are several data sources that we have used to address the research question, including ICCS 2022 teacher and school questionnaire data. We have also collected data from each participating educational system and incorporated data from external sources to enrich our understanding of the topic.

The ICCS national contexts survey has evolved across many cycles and efforts to gather information about national contexts had also been part of an earlier International Association for the Evaluation of Educational Achievement (IEA) study about this learning area. During the first phase of the IEA Civic Education Study (CIVED), conducted in 1999, the research team asked country representatives to prepare a national case study depicting the contexts for civic education in

their respective countries (Torney-Purta et al., 1999). This information informed the development of the data-collection instruments used in the second phase of the study (Torney-Purta et al., 2001).

ICCS 2009 also incorporated an online national contexts survey to gather contextual data from the study's national research centers and from people in each country identified as having expertise in civic and citizenship education (Schulz et al., 2011b). The survey included questions concerning key antecedents and processes relevant to civic and citizenship education. It therefore sought information from each country about the following: (a) the education system in general; (b) education policy and civic and citizenship education; (c) approaches to civic and citizenship education; (d) civic and citizenship education within the context of school curriculum approaches and, more specifically, in the school curriculum at the ICCS target grade; (e) teacher preparation and civic and citizenship education; (f) assessment policies and quality assurance in this learning area; and (g) current debates and reforms.

The data that the national contexts survey collected were reported extensively in the ICCS 2009 international report, encyclopedia, and three regional reports (Ainley et al., 2013; Fraillon et al., 2012; Kerr et al., 2010; Schulz et al., 2010, 2011a). Country representatives also provided detailed descriptions as a basis for developing chapters on the national contexts for civic and citizenship education in the 2009 encyclopedia (Ainley et al., 2013).

The ICCS 2016 national contexts survey underwent significant modification from the 2009 cycle, through the inclusion of questions to capture information on changes over time between cycles. Outcomes from this survey were included in the ICCS 2016 reporting (Losito et al., 2018; Schulz et al., 2018a, b).

The ICCS 2016 national contexts survey was further refined as part of the ICCS 2022 instrument development. While a large proportion of the content remained the same across the 2016 and 2022 cycles, new material for 2022 included more content related to the new focus areas, alignments with content changes to the other questionnaires, and questions related to the COVID-19 pandemic and the Ukraine crisis following the Russian invasion in early 2022.

The final survey contained 37 questions organized into the following content areas: *education system* (background, structure of the education system, COVID-19 disruptions); *civic and citizenship education in the curriculum* (education policies related to civic and citizenship education, civic and citizenship education at school, civic and citizenship education at the target grade, current reforms and debates); *teachers and teacher education* (teacher education in general, teacher education for civic and citizenship education, in-service teacher education for civic and citizenship education); *assessments and quality assurance*; and *the 2022 Ukraine crisis*.

The tables in this chapter rely on data from the national contexts survey as well as several other published sources. The information drawn from the latter pertain to country-level variables, such as population size and the results of legislative elections—information that helps illustrate the structure of the education systems and demographic or political characteristics of the participating countries. Furthermore, data collected by the ICCS 2022 teacher and school questionnaires provide principals' and teachers' perspectives on how their respective education systems approach civic and citizenship education.

2.3 Education Systems and National Contexts

When comparing selected demographic and economic characteristics of the countries surveyed in ICCS 2022 (Table 2.1), results show that countries vary considerably in terms of population size. Of the 24 countries and benchmarking participants, Malta is by far the smallest, with a population of approximately 519,000. Approximately half of the countries have population sizes ranging from one to 10 million people. The populations of the remaining countries are even larger, with Brazil having the largest population by far (more than 214 million people).

We also compared countries' respective Human Development Index (HDI) scores (Table 2.1). The HDI draws on components such as average life expectancy, years of schooling completed, and income in each country to calculate these scores (UNDP [United Nations Development Programme], 2022). All countries receive an international rank based on this metric. In 2022, several of the ICCS 2022 countries ranked particularly high on the HDI, with Norway second on the global HDI ranking, Denmark sixth, and Sweden seventh. Germany, the country where ICCS 2022's benchmarking participants are both located, is ranked ninth on the HDI. Twenty-one of the 24 participating systems were located in countries with HDI values considered "very high." The remaining three countries all had "high" HDI values.

To provide an economic profile of the participating countries in ICCS 2016, each country's gross domestic product (GDP) per capita, expressed in 2011 US dollars using purchasing power parity rates, is reported (Table 2.1). The GDP per capita of countries at the higher end of the range (Denmark, Norway, and Sweden) was considerably higher than the GDP per capita of countries at the lower end of the range (Brazil, Colombia, and Serbia). The range highlights the large differences in the relative strength of the economies of the ICCS 2022 countries.

Table 2.1 Selected demographic and economic characteristics of ICCS 2022 countries

Country	Population size (in thousands)	Human Development Index			GDP per capita (in US $)
		Value	Rank	Category	
Brazil	214,326	0.754	87	High	7,697
Bulgaria	6,878	0.795	68	High	12,222
Chinese Taipei	23,580[1]	0.926[1]	19	Very high	33,190[1]
Colombia	51,517	0.752	88	High	6,183
Croatia	38,790	0.858	40	Very high	17,748
Cyprus	1,244	0.896	29	Very high	31,552
Denmark	5,857	0.948	6	Very high	68,008
Estonia	1,331	0.890	31	Very high	27,944
France	67,750	0.903	28	Very high	43,659
Italy	59,110	0.895	30	Very high	35,770
Latvia	1,884	0.863	39	Very high	21,080
Lithuania	2,801	0.875	35	Very high	23,737
Malta	519	0.918	23	Very high	34,218
Netherlands	17,533	0.941	10	Very high	57,708
Norway	5,408	0.961	2	Very high	90,655
Poland	37,747	0.876	34	Very high	18,000
Romania	19,120	0.821	53	Very high	14,927
Serbia	6,834	0.802	63	Very high	9,230
Slovak Republic	5,447	0.848	45	Very high	21,783
Slovenia	2,108	0.918	23	Very high	29,291
Spain	47,416	0.905	27	Very high	30,104
Sweden	10,416	0.947	7	Very high	61,143
German benchmarking participants					
North Rhine-Westphalia	17,931.26	0.942[2]	9[2]	Very high[2]	51,204[2]
Schleswig-Holstein	2,897.15				

Notes:
Data on Human Development Index (HDI) were obtained from the Human Development Report (UNDP, 2022) unless otherwise stated.
Data on population size and GDP per capita were sourced from World Bank Indicators (World Bank, 2022) unless otherwise stated.
[1] Population size sourced from CIA (2022), HDI sourced from DGBAS (2022), GDP per capita sourced from IMF (2023).
[2] Data refers to the whole of Germany.
GDP = gross domestic product.

We also compared characteristics of the political systems across ICCS countries (Table 2.2). These include: (a) legal age for voting; (b) the extent to which voting is compulsory; (c) the year of the legislative election closest to when the study was conducted; (d) voter turnout during that election; and (e) the makeup of the ensuing parliament in terms of the percentage of seats held by women. A score and country ranking on the Liberal Democracy Index (Papada et al., 2023), classification of the type of regime, and country score on the Corruptions Perceptions Index (Transparency International, 2023) are also recorded.

Nearly all of the ICCS 2022 countries currently have 18 years as the minimum legal age for voting (22 out of 24 countries). Only Brazil (16 years) and Chinese Taipei (20 years) have slightly different minimum legal voting ages. There is also little variation in whether voting is compulsory or not. People are not compelled to vote in 23 of the participating countries or benchmarking participants. The one ICCS 2022 country where voting is a legal requirement is Brazil.

The countries varied markedly with respect to voter turnout during their most recent legislative elections. Higher turnouts were observed in Malta, Sweden, Denmark, and Brazil, while less than half of eligible voters chose to vote in the most recent elections preceding the study in Bulgaria, Croatia, France, Lithuania, and Romania. Although no country participating in ICCS 2022 had equal representation of women in parliament, women represented more than 40% of parliament members in Chinese Taipei, Denmark, Norway, Slovenia, and Sweden. Four participating countries had less than 20% representation.

There was a fair degree of variation in how countries scored (and ranked) on the Liberal Democracy Index, a measure that rates countries on a scale from 0 to 1 based on their commitment to electoral integrity and respect for civil liberties, such as freedom of the press and judicial independence (Papada et al., 2023). Higher scores were seen in Denmark, Sweden, Norway, and Estonia, whereas lower scores were observed in Serbia, Poland, Romania and Colombia. Each country was classified into a categorical regime type based on the Regimes of the World Index (Papada et al., 2023). Countries were designated as one of four types based on their perceived democracy and civil liberty levels: Closed Autocracies, Electoral Autocracies, Electoral Democracies, or Liberal Democracies. Countries classified as Liberal Democracies have the highest perceived democratization and lowest perceived autocratization. Fourteen of the 24 countries met the criteria for Liberal Democracies which are characterized as, "requirements of electoral democracy are met; judicial and legislative constraints on the executive along with the protection of civil liberties and equality before the law." Nine countries were classified as Electoral Democracies which are characterized as, "multiparty elections for the executive are free and fair; satisfactory degrees of suffrage, freedom of expression, freedom of association." Serbia was the lone country classified as an Electoral Autocracy which is characterized as, "multiparty elections for the executive exist; insufficient levels of fundamental requisites such as freedom of expression and association, and free and fair elections." No country participating in ICCS 2022 was identified as a Closed Autocracy.

We also reviewed the scores for each country according to the Corruption Perceptions Index, which is compiled by Transparency International and provides each country with a score out of 100 about the perceived level of public sector corruption (Transparency International, 2023). A score of 0 indicates the country is perceived as highly corrupt, whereas a score of 100 indicates that the public management and governance are perceived as very transparent. The ICCS 2022 countries varied in their scores on this index. Denmark, Sweden, Norway, the Netherlands, and Germany (where the two benchmarking participants are located), all had scores of 80 and above on this index, which indicated lower levels of perceived corruption. In comparison, Brazil, Serbia, Colombia, Bulgaria, Romania, and Croatia, all had scores of below 50, indicating higher levels of perceived corruption.

The selected education characteristics of ICCS 2022 countries include: (a) the proportion of adults who are literate; (b) the relative spending of the government on education; and (c) the proportion of the population who use the internet (Table 2.3). Literacy rates in the countries participating in ICCS 2022 were high. The data show near universal adult literacy in European countries, with slightly lower rates in Brazil, Colombia, and Malta.

Public expenditure on education ranged from 3.6% of GDP in Serbia to 7.2 in Sweden. The proportion of the population who use the internet was high in the majority of countries, with lower rates observed in Bulgaria and Colombia (75% and 73%, respectively). In Denmark and Norway, almost all of the population used the internet (99%).

The ICCS 2022 national contexts survey included a question asking respondents to indicate the governance structure for school education in their countries (whether governance is directed at the national level, whether it is at the state/provincial level, or whether it is some combination of the two) (Table 2.4). In approximately half the countries, responsibility for school education primarily rested with a national ministry or department of education. In Brazil, Chinese Taipei, Denmark, Estonia, Lithuania, Norway, Poland, and Sweden, there is an approximately even balance of responsibility between national and state/provincial authorities. In Spain and for the two German benchmarking participants, responsibility primarily lies at the state or provincial level.

Table 2.2 Selected political characteristics of ICCS 2022 countries

Country	Legal age of voting	Compulsory voting (Y/N)	Percentages of voter turnout at last legislative election prior to study (year of election)	Percentages of seats held by women in parliament	Liberal Democracy Index			Corruption Perceptions Index
					Score	Rank	Regime type	
Brazil	16	Y	79.10 (2022)[1]	14.81	0.53	58	ED	38
Bulgaria	18	N	39.30 (2022)	24.17	0.61	48	ED	42
Chinese Taipei	20	N	74.90 (2020)[2]	41.60[2]	0.73	30	LD	68
Colombia	18	N	54.98 (2022)	29.00	0.55	54	ED	39
Croatia	18	N	46.90 (2020)	23.18	0.65	42	ED+	47
Cyprus	18	N	65.72 (2021)	14.29	0.64	45	LD-	53
Denmark	18	N	84.16 (2022)	43.58	0.89	1	LD	88
Estonia	18	N	63.67 (2019)	29.70	0.85	5	LD	74
France	18	N	47.51 (2022)	37.26	0.80	13	LD-	71
Italy	18	N	63.69 (2022)	34.50	0.77	19	LD-	56
Latvia	18	N	59.43 (2022)	30.00	0.74	25	LD	59
Lithuania	18	N	47.81 (2020)	26.95	0.73	26	ED+	61
Malta	18	N	85.63 (2022)	5.06	0.64	44	ED+	54
Netherlands	18	N	78.71 (2021)	39.33	0.80	14	LD	82
Norway	18	N	77.17 (2021)	44.97	0.86	3	LD-	85
Poland	18	N	61.74 (2019)	28.70	0.43	78	ED	56
Romania	18	N	31.95 (2020)	18.38	0.55	55	ED	45
Serbia	18	N	58.60 (2022)	38.80	0.27	104	EA	38
Slovak Republic	18	N	65.81 (2020)	21.33	0.78	18	LD-	52
Slovenia	18	N	70.97 (2022)	40.00	0.71	32	ED+	57
Spain	18	N	65.38 (2019)	39.42	0.79	16	LD	61
Sweden	18	N	84.21 (2022)	46.13	0.87	2	LD	85
German benchmarking participants								
North Rhine-Westphalia[3]	18	N	76.58 (2017)	30.75	0.81	12	LD	80
Schleswig-Holstein[3]								

Notes:
Data for this table collected from IPU Parline database (2023) unless otherwise stated.
Data for Corruption Perception Index sourced from Transparency International (2023).
Data for democracy index and regime type sourced from V-Dem Institute (Papada et al., 2023).
[1] Brazil has optional voting from age 16–18 and those over 70.
[2] Electoral data sourced from International Foundation for Electoral Systems (2023), percentages. of female representation sourced from International IDEA (2023).
[3] Data refers to the whole of Germany.

Regime type:
LD - Liberal Democracy
ED - Electoral Democracy
EA - Electoral Autocracy
CA - Closed Autocracy
– taking uncertainty into account, the country could belong to the lower category
+ the country could also belong to the higher category

Table 2.3 Selected educational characteristics of ICCS 2022 countries

Country	Adult literacy rate (%)	Public expenditure on education (% of GDP)	Individuals using the internet (% of population)
Brazil	94	6.0	81
Bulgaria	98	4.0	75
Chinese Taipei	99	5.0[1]	91[1]
Colombia	96	4.9	73
Croatia	99	5.5	81
Cyprus	99	6.1	91
Denmark	99	6.4	99
Estonia	100	6.6	91
France	99	5.5	86
Italy	99	4.3	75
Latvia	100	6.0	91
Lithuania	100	4.0	87
Malta	95	5.9	87
Netherlands	99	5.3	92
Norway	100	5.9	99
Poland	100	5.2	85
Romania	99	3.7	84
Serbia	99	3.6	81
Slovak Republic	100	4.6	89
Slovenia	100	5.8	89
Spain	99	4.6	94
Sweden	99	7.2	88
German benchmarking participants			
North Rhine-Westphalia[2]	99	4.7	91
Schleswig-Holstein[2]			

Notes:
Data for this table obtained from World Bank (2022) unless otherwise stated.
[1] Data sourced from DGBAS (2023).
[2] Data refers to the whole of Germany.
GDP = gross domestic product.

The national contexts survey asked the study's national research centers to provide information about how much autonomy the lower-secondary schools in their countries have with regard to making decisions about five school processes: (a) school governance; (b) allocating resources; (c) teacher recruitment; (d) curricula planning; (e) pedagogy or approaches to teaching; (f) provision of opportunities for staff to participate in in-service education in civic and citizenship education; (g) student assessment in civic and citizenship education; and (g) student assignment to classes or courses. Respondents were asked to select from three options reflecting decreasing levels of autonomy—"higher," "some," or "lower."

The results show that there was a high degree of variation across countries for each of the processes (Table 2.5). In the majority of countries, schools had some autonomy with elements of school governance (including whole school financial management, setting strategic goals, and implementation of curriculum).

In Brazil and France, schools had little or no autonomy for this aspect. Overall, there were slightly lower levels of autonomy for allocating resources within the school budget. In four countries schools were reported as having full autonomy for this aspect, in 14 countries as having some autonomy, and in six countries as having little or no autonomy. There were more education systems that provided schools with some or full autonomy for selecting and appointing teachers. Full autonomy was reported in 10 education systems and some autonomy in eight, while three had little or no autonomy.

In 15 countries, schools were reported to have some degree of autonomy for curriculum planning, while in five countries they had full autonomy and in four countries little or no autonomy. National contexts survey data suggest that schools in all education systems have at least some autonomy for pedagogy or approaches to teaching; in 14 countries, schools were reported as having full autonomy on this issue. Provision and opportunities for staff to participate in in-service education in civic and citizenship education was at the full discretion of schools in a majority of countries, while for only three systems,

Table 2.4 Governance of school education in ICCS 2022 countries

Country	Governance structure
Brazil	National/state or province balance
Bulgaria	National level
Chinese Taipei	National/state or province balance
Colombia	National level
Croatia	National level
Cyprus	National level
Denmark	National/state or province balance
Estonia	National/state or province balance
France	National level
Italy	National level
Latvia	National level
Lithuania	National/state or province balance
Malta	National level
Netherlands	National level
Norway	National/state or province balance
Poland	National/state or province balance
Romania	National level
Serbia	National level
Slovak Republic	National level
Slovenia	National level
Spain	State/Provincial level
Sweden	National/state or province balance
German benchmarking participants	
North Rhine-Westphalia	State/Provincial level
Schleswig-Holstein	State/Provincial level

Notes:
National level: Responsibility for school education rests primarily with a national ministry or department of education.
State/provincial level: Responsibility for school education rests primarily with state/provincial authorities.
National/state or province balance: There is an approximately even balance of responsibility for school education between national and state/provincial authorities (for example, national authorities are responsible for national curricula while state/provincial authorities have responsibilities for school organization and/or teacher training and selection).

national contexts survey data indicate that schools do not have any autonomy. In 21 of the 24 countries, schools were reported as having at least some autonomy with regard to student assessment in the area, in 13 education systems schools were reported to have full autonomy. In almost all countries, national contexts survey data indicate that schools have at least some autonomy for students' assignment to classes and/or courses, while in only three education systems schools have no autonomy of decision-making on this matter.

2.4 Level of Autonomy in Planning Civic and Citizenship Education at School Level

ICCS 2022 examined the degree of autonomy that lower secondary schools had when it comes to developing and arranging curriculum, teaching, and learning activity components of civic and citizenship education. Previous studies have provided evidence that school autonomy, in conjunction with accountability measures at the national level, may have the potential of encouraging successful teaching and learning (OECD [Organisation for Economic Co-operation and Development], 2020). National regulations and standards concerning the results that students should achieve does not necessarily imply that schools deliver similar programs and approaches to teaching (European Commission/EACEA [European Education and Culture Executive Agency]/Eurydice, 2017), and the time allocated to citizenship education, teacher qualifications, and the support principals provide to civic and citizenship education within schools may vary considerably (Malak-Minkiewicz & Torney-Purta, 2021). As reported in the previous section, national contexts survey data indicate that in only a few education systems do schools have full autonomy for deciding on the planning and delivery of civic and citizenship curricula.

Table 2.5 Level of autonomy of individual schools in decision-making processes

Country	School governance (e.g., whole school financial management, setting strategic goals, implementation of curriculum)	Allocating resources within the school budget	Teacher recruitment	Civic and citizenship curriculum planning and delivery	Pedagogy or approaches to teaching civic and citizenship education	Provision of opportunities for staff to participate in in-service education in civic and citizenship education	Student assessment in civic and citizenship education	Students' assignment to classes and/or courses
Brazil	○	○	○	○	◒	◒	◒	◒
Bulgaria	◒	◒	●	◒	●	●	◒	◒
Chinese Taipei	◒	◒	◒	◒	●	●	●	●
Colombia	●	◒	◒	●	◒	◒	◒	●
Croatia	◒	●	●	◒	◒	●	◒	●
Cyprus	◒	○	○	◒	◒	◒	◒	○
Denmark	◒	◒	●	◒	●	◒	◒	◒
Estonia	●	●	●	◒	●	●	◒	●
France	○	○	○	○	◒	◒	◒	◒
Italy	●	◒	○	●	●	●	●	◒
Latvia	◒	○	●	◒	◒	●	●	●
Lithuania	◒	◒	●	●	●	●	●	◒
Malta	◒	◒	○	◒	◒	◒	○	◒
Netherlands	●	●	●	●	●	●	●	●
Norway	◒	◒	◒	◒	●	◒	●	○
Poland	◒	◒	◒	◒	●	●	●	◒
Romania	◒	○	○	○	◒	○	○	○
Serbia	●	●	●	●	●	●	●	◒
Slovak Republic	◒	◒	●	◒	●	○	●	●
Slovenia	●	○	●	○	●	●	●	●
Spain	◒	◒	◒	◒	●	◒	●	●
Sweden	◒	◒	◒	◒	◒	●	○	◒
German benchmarking participants								
North Rhine-Westphalia	◒	◒	◒	◒	◒	●	●	◒
Schleswig-Holstein	◒	◒	◒	◒	◒	●	●	◒

● = Higher degree of autonomy
◒ = Some degree of autonomy
○ = Lower degree of autonomy

The ICCS 2022 school questionnaire encompassed a set of items asking principals about the level of autonomy their schools had over planning the following specific aspects of their civic and citizenship education: (a) choice of textbooks and teaching materials; (b) establishing student assessment procedures and tools; (c) curriculum planning; (d) determining the content of in-service professional development programs for teachers; (e) organizing extra-curricular activities; (f) establishing cooperation agreements with organizations and institutions (e.g., universities and research institutions, local authorities, associations, foundations); and (g) participating in projects in partnership with other schools at national and international levels.

In line with previous cycle results, we observed that, on average across countries, schools were reported as having the greatest autonomy in organizing extra-curricular activities, whereas the least autonomy was reported for curriculum planning (Table 2.6). Ninety-four percent of students were enrolled at schools where principals reported having full or quite a lot of autonomy regarding the organization of extracurricular activities. Nine countries had percentages that were significantly higher than the ICCS 2022 average.

The results showed that a vast majority of the ICCS 2022 students (international average: 88%) were at schools with full or quite a lot of autonomy over choosing textbooks and teaching materials. The lowest percentages recorded for this aspect were in Cyprus and Malta (27% and 42% respectively). We recorded a similar international average (89%) for students at schools with full or quite a lot of autonomy for participating in projects in partnership with other schools at national and international levels.

The principals' responses indicated greater variation across countries with regard to school autonomy over determining the content of in-service professional development programs for teachers. In ICCS 2022 the average of students studying at schools with full or quite a lot of autonomy in this aspect was 83%; we observed percentages more than 10 percentage points below the ICCS average in Norway (35%), France (42%), Malta (57%), Romania (64%) and Cyprus (71%).

Even if civic and citizenship education curricula was the least of the aspects selected by principals as having full or quite a lot of autonomy, we observed still a relatively high level of autonomy in this area (international average of 79%). Only five countries recorded percentages that were more than 10 percentage points below the ICCS 2022 average for curriculum planning. Those countries were Cyprus (26%), Malta (37%), Slovenia (49%), France (54%), and Latvia (68%).

2.5 Profiles of Civic and Citizenship Curricula and Approaches

When completing the national contexts survey, national research centers provided information on how, based on official documentation, the schools in their respective countries were meant to teach civic and citizenship education at the target grade (Table 2.7). In 13 education systems, civic and citizenship education was expected to be taught as a separate subject to students at the target grade. In all countries, except for Italy and Serbia, civic and citizenship education was imparted by teachers of subjects related to human/social sciences (for example, history, geography, law, or economics). For 20 of the 24 education systems participating in ICCS 2022, national centers also reported that civic and citizenship education was expected to be integrated into all subjects in the school. The centers in nine countries reported that civic and citizenship education was meant to be treated as an extracurricular activity.

Approaches to implement civic and citizenship education at school may vary substantially across countries (European Commission/EACEA/Eurydice, 2017), and all three ICCS cycles surveyed the various approaches at the school level. The ICCS 2022 school questionnaire included the same question as the national contexts survey asking principals to report how civic and citizenship education was implemented at the sampled schools. Principals indicated which of these approaches applied to the teaching of civic and citizenship education at their schools.

When looking at the results, we recorded the highest percentages of students at schools where principals reported that civic and citizenship education is taught by teachers of human/social sciences (ICCS 2022 average: 74%), with a percentage of 90% or more in nine countries (Table 2.8). As for students at schools where principals reported that civic and citizenship education is taught as a separate subject, we recorded percentages significantly above the ICCS 2022 average (43%) in the following countries: the Slovak Republic and Poland (both at 100%), Slovenia (99%), Serbia (93%), Romania and Chinese Taipei (both at 82%), and Estonia (55%). However, confirming results from previous ICCS surveys, the coexistence of different approaches is evident in most of the countries.

Table 2.6 Percentages of students at schools where principals reported school autonomy in planning different aspects of civic and citizenship education

Country	Percentages of students at schools where principals report having full or quite a lot of autonomy for:						
	Choice of textbooks and teaching materials	Establishing student assessment procedures and tools	Curriculum planning	Determining the content of in-service professional development programs for teachers	Organizing extra-curricular activities	Establishing cooperation agreements with organizations and institutions (e.g., universities and research institutions, local authorities, associations, foundations)	Participating in projects in partnership with other schools at national and international levels
Bulgaria	97 (1.6) △	98 (1.1) ▲	87 (3.1) △	93 (2.2) ▲	100 (0.0) △	97 (1.3) △	90 (2.0)
Chinese Taipei	100 (0.0) ▲	98 (1.2) ▲	97 (1.8) ▲	95 (2.1) ▲	96 (1.4)	88 (2.7)	79 (3.2) ▽
Colombia	86 (3.1)	96 (1.8) △	97 (1.3) ▲	84 (3.4)	93 (2.0)	83 (3.8)	76 (4.3) ▼
Croatia[1]	93 (2.2) △	93 (2.3) △	94 (1.9) ▲	91 (2.4) △	96 (1.7)	96 (1.7) △	95 (2.1) △
Cyprus	27 (0.2) ▼	42 (0.3) ▼	26 (0.2) ▼	71 (0.3) ▼	82 (0.2) ▼	67 (0.2) ▼	79 (0.2) ▽
Estonia	97 (2.1) △	90 (3.3)	76 (5.7)	91 (3.2) △	100 (0.0) △	94 (2.4) △	98 (1.5) △
France	96 (1.9) △	92 (2.6)	54 (4.8) ▼	42 (5.0) ▼	87 (3.3) ▽	75 (4.2) ▼	80 (4.1) ▽
Italy	99 (0.7) ▲	99 (0.9) ▲	97 (1.3) ▲	97 (1.3) ▲	97 (1.3) △	93 (2.5) △	92 (2.5)
Latvia[1]	92 (2.3)	89 (2.7)	68 (4.1) ▼	85 (3.0)	99 (0.7) △	92 (2.1) △	91 (2.1)
Lithuania	91 (2.6)	90 (2.7)	80 (3.9)	94 (1.9) ▲	97 (1.5)	96 (1.3) △	96 (1.7) △
Malta	42 (2.9) ▼	43 (7.2) ▼	37 (7.0) ▼	57 (13.5) ▼	89 (7.4)	74 (11.1) ▼	85 (8.7)
Netherlands†	96 (2.1) △	98 (1.5) ▲	100 (0.0) ▲	99 (0.6) ▲	97 (1.9)	87 (3.8)	86 (4.4)
Norway (9)[1]	88 (3.0)	93 (2.5) △	93 (2.5) ▲	35 (4.8) ▼	88 (3.1)	73 (3.9) ▼	77 (4.2) ▼
Poland	97 (1.4) △	97 (1.3) △	90 (2.4) ▲	98 (0.9) ▲	80 (3.2) ▼	86 (2.4)	88 (2.4)
Romania	92 (2.2)	91 (3.8)	92 (2.7) ▲	64 (8.4) ▼	99 (1.0) △	98 (1.1) ▲	98 (1.1) △
Serbia	95 (1.9) △	94 (1.9) △	82 (3.7)	95 (2.0) ▲	97 (1.6)	93 (2.4) △	93 (2.3)
Slovak Republic	86 (3.0)	95 (1.6) △	80 (3.4)	93 (2.2) △	99 (0.8) △	97 (1.6) △	92 (2.5)
Slovenia	98 (1.1) △	95 (1.7) △	49 (3.6) ▼	91 (2.5) △	97 (1.4) △	94 (1.9) △	97 (1.4) △
Spain	97 (1.5) △	96 (1.7) △	79 (3.6)	86 (2.9)	98 (1.4) △	94 (2.0) △	93 (2.2) △
Sweden[1]	98 (1.6) △	64 (4.5) ▼	100 (0.0) ▲	93 (2.5) △	85 (3.6) ▽	70 (4.3) ▼	86 (3.5)
ICCS 2022 average	88 (0.5)	88 (0.6)	79 (0.8)	83 (1.0)	94 (0.6)	87 (0.8)	89 (0.7)
Countries not meeting sample participation requirements							
Brazil	84 (3.2)	90 (2.9)	85 (3.2)	57 (4.6)	84 (3.2)	57 (4.2)	53 (4.5)
Denmark	93 (2.4)	71 (4.4)	87 (3.4)	83 (3.9)	78 (4.2)	95 (2.3)	88 (2.8)
German benchmarking participant meeting sample participation requirements							
North Rhine-Westphalia	95 (2.0) △	78 (3.9) ▼	65 (3.9) ▼	97 (1.7) ▲	97 (1.6) △	96 (1.6) △	95 (1.6) △
German benchmarking participant not meeting sample participation requirements							
Schleswig-Holstein	98 (1.7)	83 (3.7)	54 (6.4)	95 (2.6)	100 (0.0)	100 (0.0)	98 (1.8)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

Table 2.7 Intended approaches to civic and citizenship education in the curriculum for target grade students in participating countries as reported by the ICCS 2022 national contexts survey

Country	Approaches to civic and citizenship education at the target grade			
	Taught as a separate subject	Integrated into subjects related to human/social sciences (e.g., history, geography, law, or economics)	Integrated into all subjects taught at school	An extra-curricular activity
Brazil		●	●	●
Bulgaria		●	●	
Chinese Taipei	●	●	●	●
Colombia		●	●	
Croatia	●	●	●	●
Cyprus		●	●	
Denmark	●	●	●	
Estonia	●	●	●	●
France	●	●	●	
Italy	●		●	
Latvia	●	●	●	●
Lithuania		●	●	●
Malta		●		
Netherlands		●	●	
Norway		●	●	
Poland	●	●		
Romania	●	●		●
Serbia	●			
Slovak Republic	●	●	●	
Slovenia	●	●	●	
Spain		●	●	
Sweden		●	●	
German benchmarking participants				
North Rhine-Westphalia	●	●	●	●
Schleswig-Holstein	●	●	●	●

Table 2.8 Percentages of students at schools where principals reported on school approaches to teaching civic and citizenship education

Country	Percentages of students at schools where principals report that civic and citizenship education is:											
	Taught as a separate subject			Integrated into subjects related to human/social sciences (e.g., history, geography, law, economics)			Integrated into all subjects taught at school			An extra-curricular activity		
Bulgaria	19	(3.7)	▼	92	(2.4)	▲	47	(4.6)	▽	25	(4.3)	
Chinese Taipei	82	(3.2)	▲	70	(4.2)		59	(4.6)		45	(4.3)	▲
Colombia	17	(3.9)	▼	96	(1.5)	▲	64	(4.6)		14	(3.3)	▽
Croatia[1]	5	(1.8)	▼	92	(2.6)	▲	78	(3.8)	▲	16	(2.4)	
Cyprus	2	(0.1)	▼	90	(0.1)	▲	38	(0.3)	▼	15	(0.2)	▽
Estonia	55	(5.5)	▲	69	(6.0)		52	(6.1)		33	(6.0)	▲
France	49	(4.2)		95	(2.2)	▲	36	(4.3)	▼	2	(1.5)	▼
Italy	12	(2.7)	▼	32	(3.7)	▼	97	(1.5)	▲	7	(4.9)	▼
Latvia[1]	16	(3.5)	▼	99	(0.7)	▲	75	(3.7)	▲	81	(3.6)	▲
Lithuania	17	(3.6)	▼	59	(4.2)	▼	79	(3.6)	▲	60	(4.7)	▲
Malta	42	(11.3)		93	(5.5)	▲	37	(10.4)		13	(5.0)	
Netherlands†	11	(3.1)	▼	79	(5.4)		65	(5.2)		39	(5.3)	▲
Norway (9)[1]	8	(2.6)	▼	94	(2.3)	▲	86	(2.9)	▲	10	(2.9)	▼
Poland	100	(0.0)	▲	77	(3.1)		46	(3.6)	▼	18	(2.2)	
Romania	82	(5.5)	▲	56	(8.1)	▼	43	(8.0)		17	(4.6)	
Serbia	93	(1.8)	▲	16	(3.1)	▼	14	(2.9)	▼	10	(3.1)	▼
Slovak Republic	100	(0.4)	▲	54	(4.4)	▼	44	(4.1)	▼	5	(1.9)	▼
Slovenia	99	(0.7)	▲	53	(4.0)	▼	41	(3.6)	▼	4	(1.6)	▼
Spain	38	(4.3)		79	(3.4)		64	(4.2)		5	(1.9)	▼
Sweden[1]	18	(4.2)	▼	96	(1.7)	▲	57	(4.9)		4	(1.3)	▼
ICCS 2022 average	43	(0.9)		74	(0.9)		56	(1.1)		21	(0.8)	
Countries not meeting sample participation requirements												
Brazil	9	(2.8)		91	(2.7)		77	(4.3)		20	(3.9)	
Denmark	40	(5.2)		89	(3.1)		57	(5.3)		1	(1.0)	
German benchmarking participant meeting sample participation requirements												
North Rhine-Westphalia	29	(3.9)	▼	80	(4.1)		54	(5.1)		61	(4.2)	▲
German benchmarking participant not meeting sample participation requirements												
Schleswig-Holstein	32	(5.6)		68	(6.0)		68	(6.0)		70	(4.6)	

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

2.6 Approaches to Civic and Citizenship Education at the Target Grade in Individual Schools

The national contexts survey asked national centers to indicate whether the curriculum for the ICCS 2022 target grade specified certain learning objectives in their civic and citizenship education provision. The results reveal a great deal of consensus in the specification of learning objectives across countries (Table 2.9). "Understanding key values and attitudes," "communicating through discussion and debate," and "understanding decision-making and active participation" were the objectives most often mentioned, reported for 22 of the 24 education systems. The majority of other objectives were reported as objectives between 14 and 21 education systems. "Developing a sense of regional identity" and "developing a sense of global identity" were less frequently reported, in less than half of the participating systems.

Similar to past cycles, ICCS 2022 asked teachers and principals to indicate the importance of several civic and citizenship education aims. Recent research has highlighted their relevance for classroom instruction (Reichert et al., 2021; Reichert & Torney-Purta, 2019). Both the school questionnaire and the teacher questionnaire included the same question about the aims of civic and citizenship education. The question asked respondents to choose the top three aims for civic and citizenship education from the following list: (a) promoting knowledge of social, political and civic institutions; (b) promoting respect for and safeguard of the environment; (c) promoting students' knowledge of the connections between local and global issues; (d) developing students' skills and competencies in conflict resolution; (e) promoting knowledge of citizens' rights and responsibilities; (f) promoting students' participation in the local community; (g) promoting students' critical and independent thinking; (h) promoting students' sense of belonging to the global community; (i) supporting the development of effective strategies to reduce racism; (j) preparing students for future political engagement; (k) promoting the capacity to defend one's own point of view; (l) promoting students' participation in school life; and (m) promoting students' engagement for a fairer and more peaceful world.

The above-mentioned aims can be organized into three overarching conceptual areas:

- knowledge and skills (development of): items a, c, d, e, and g
- sense of responsibility (development of): items b, h, i, and k
- active participation (development of): items f, j, l, and m

When considering the national percentages of students studying at schools where principals reported each of these aims as among the three most important ones, the results show considerable variation both across countries and in the aim most frequently mentioned (Table 2.10). The aims indicated as the most important were those related to the area of civic and political knowledge and skills. We recorded the highest international average (58%) for promoting students' critical and independent thinking, followed by promoting students' knowledge of citizens' rights and responsibilities (46%). The promotion of respect for and safeguard of the environment (international ICCS 2022 average 36%) shows percentages ranging from 19% in Norway to 58% in Lithuania, whereas the average for promoting knowledge of social, political, and civic institutions was lower (26%).

When reviewing the results from the teacher survey regarding the most important aims (Table 2.11), on average, the three aims of civic and citizenship education selected as the most important are promoting students' independent and critical thinking (55%), promoting respect for and safeguard of the environment (46%), and developing students' skills and competencies in conflict resolution (42%). Across countries, promoting knowledge of citizens' rights and responsibilities was chosen by 36% of the teachers, while 20% of teachers, across countries, indicated the promotion of students' knowledge of social, political, and civic institutions.

In both the school and teacher surveys[1] in ICCS 2022, promoting students' critical and independent thinking was reported as one of the most important objectives of civic and citizenship education. However, while the second-highest percentage from the school survey was recorded for promoting knowledge of citizens' rights and responsibilities (46% of students), promoting respect for and safeguard of the environment was the second-most mentioned important aim by teachers (46%). According to both school and teacher surveys, the lowest average percentages (less than 5%) for ICCS 2022 countries were recorded for aims included in the active participation area, such as preparing students for future political engagement and supporting the development of effective strategies to reduce racism.

[1]We advise readers to treat comparisons with due caution given that school principals' perceptions are reported at the student level, while the teachers' perceptions pertain to the teacher population. Additionally, the number of countries that are used to calculate the ICCS 2022 average differ across both surveys due to the exclusion of countries whose national samples did not meet IEA sample participation requirements, and this should be considered when making comparisons.

Table 2.9 Learning objectives for civic and citizenship education at the target grade as reported by the ICCS 2022 national contexts survey

Country	Inclusion of learning objectives in the curriculum for the target grade at a national level								
	Knowing basic civic and citizenship facts (e.g., about political institutions and processes)	Understanding key civic and citizenship concepts (e.g., democracy, rights and responsibilities)	Understanding key civic and citizenship values and attitudes (e.g., fairness, responsibility, engagement)	Communicating through discussion and debate	Understanding decision-making and active participation	Becoming involved in decision-making in school	Participating in community-based activities	Developing a sense of national identity and allegiance	Developing positive attitudes toward participation and engagement in civic and civil society
Brazil	●	●	●	●	●	●	●	●	●
Bulgaria	●	●	●	●	●	●	●	●	●
Chinese Taipei	●	●	●	●	●	●	●	●	●
Colombia	●	●	●		●	●		●	●
Croatia	●	●	●	●	●	●	●	●	●
Cyprus	●	●	●	●	●	●	●	●	●
Denmark	●	●		●	●				
Estonia	●	●	●	●	●	●	●	●	●
France			●	●	●	●	●	●	●
Italy	●	●	●					●	
Latvia	●	●	●	●	●				
Lithuania	●	●	●	●	●	●	●	●	●
Malta	●	●	●	●	●	●	●		●
Netherlands	●			●	●				
Norway	●	●	●	●	●	●	●	●	●
Poland	●	●	●	●	●	●	●	●	●
Romania			●	●	●	●	●	●	●
Serbia		●	●	●	●		●		●
Slovak Republic	●	●	●	●	●	●		●	●
Slovenia	●	●	●	●	●				●
Spain		●	●	●					●
Sweden	●	●	●	●	●	●			●
German benchmarking participants									
North Rhine-Westphalia	●	●	●	●	●	●	●		
Schleswig-Holstein	●	●	●	●	●	●	●		●

(continued)

Table 2.9 (continued)

Country	Inclusion of learning objectives in the curriculum for the target grade at a national level							
	Understanding how to resolve conflicts in society	Understanding principles of voting and elections	Understanding of global issues and interconnections	Understanding environmental issues (e.g., climate change, pollution, endangerment of species)	Knowledge about and awareness of social diversity	Understanding the role of digital technologies for civic and civil society	Developing a sense of regional identity (e.g., European, Latin American or Asian)	Developing a sense of global identity
Brazil	●	●	●	●	●	●	●	●
Bulgaria	●	●	●	●	●	●	●	●
Chinese Taipei	●	●	●	●	●	●	●	●
Colombia	●	●		●	●			
Croatia	●	●	●	●	●	●	●	●
Cyprus	●	●	●	●	●	●	●	●
Denmark		●	●		●			
Estonia	●	●	●	●	●	●		
France	●	●		●		●		
Italy		●		●	●	●	●	
Latvia								
Lithuania	●	●	●	●	●	●	●	●
Malta	●	●	●	●	●	●		●
Netherlands		●	●		●			
Norway	●	●	●	●	●	●		●
Poland	●	●	●	●	●	●	●	
Romania	●		●	●		●	●	
Serbia	●				●	●		
Slovak Republic		●	●	●	●	●	●	●
Slovenia	●	●	●	●				
Spain	●		●	●	●		●	●
Sweden	●	●	●	●	●	●	●	●
German benchmarking participants								
North Rhine-Westphalia	●	●	●	●	●	●		
Schleswig-Holstein	●	●	●	●	●	●		

Table 2.10 Percentages of students at schools where principals reported different aims of civic and citizenship education as one of the three most important aims

Country	Percentages of students at schools where principals consider as an important aim of civic and citizenship education:						
	Promoting knowledge of social, political and civic institutions	Promoting respect for and safeguard of the environment	Promoting students' knowledge of the connections between local and global issues	Developing students' skills and competencies in conflict resolution	Promoting knowledge of citizens' rights and responsibilities	Promoting students' participation in the local community	Promoting students' critical and independent thinking
Bulgaria	35 (4.2) △	38 (4.0)	16 (3.4)	32 (4.1)	50 (4.2)	7 (2.2) ▽	48 (3.9) ▼
Chinese Taipei	17 (3.2) ▽	33 (3.6)	37 (3.6) ▲	31 (3.1)	50 (4.2)	15 (3.0)	75 (3.2) ▲
Colombia	20 (4.0)	41 (5.1)	15 (3.2)	66 (4.5) ▲	62 (4.6) ▲	7 (2.2) ▽	36 (4.9) ▼
Croatia[1]	28 (3.9)	38 (4.5)	12 (2.9) ▽	40 (4.3)	53 (4.5)	10 (2.8)	51 (4.1)
Cyprus	25 (0.2)	47 (0.3) ▲	15 (0.1) ▽	27 (0.2) ▽	37 (0.3) ▽	12 (0.3)	45 (0.3) ▼
Estonia	30 (5.9)	22 (3.8) ▼	36 (6.2) ▲	40 (5.9)	47 (5.7)	12 (3.3)	67 (6.1)
France	49 (5.0) ▲	31 (4.9)	4 (1.9) ▼	19 (4.1) ▼	73 (4.4) ▲	6 (2.4) ▽	63 (5.1)
Italy	28 (3.9)	49 (4.7) ▲	11 (2.7) ▽	26 (3.3) ▽	53 (5.0)	6 (2.0) ▽	60 (3.9)
Latvia[1]	20 (3.6)	26 (3.9) ▽	24 (3.8)	21 (3.9) ▼	44 (4.0)	20 (3.3) △	56 (4.7)
Lithuania	13 (2.9) ▼	58 (4.8) ▲	13 (2.9)	46 (4.6) ▲	29 (4.1) ▼	14 (3.3)	64 (4.0)
Malta	26 (9.4)	37 (7.6)	18 (8.8)	16 (5.4) ▼	51 (10.5)	16 (9.4)	57 (12.8)
Netherlands†	29 (5.9)	24 (4.6) ▼	22 (5.1)	35 (5.4)	13 (4.4) ▼	21 (4.4) △	68 (4.9) △
Norway (9)[1]	44 (4.7) ▲	19 (3.5) ▼	26 (4.5)	18 (3.7) ▼	28 (4.3) ▼	10 (2.7)	75 (4.2) ▲
Poland	11 (2.5) ▼	35 (3.5)	17 (3.0)	44 (3.9) ▲	36 (4.2) ▽	32 (3.4) ▲	52 (4.2)
Romania	27 (8.6)	38 (7.0)	21 (5.8)	25 (5.3)	51 (7.4)	21 (4.4) △	37 (7.1) ▼
Serbia	26 (4.1)	28 (3.7) ▽	13 (3.1)	58 (4.3) ▲	57 (4.5) ▲	12 (2.8)	56 (3.8)
Slovak Republic	30 (4.0)	43 (4.5)	21 (3.1)	26 (3.7) ▽	55 (4.1) △	11 (2.8)	54 (3.9)
Slovenia	31 (3.7)	37 (4.2)	20 (3.2)	29 (3.2)	44 (4.0)	13 (2.5)	59 (3.5)
Spain	9 (2.5) ▼	49 (4.1) ▲	4 (1.8) ▼	67 (4.1) ▲	32 (3.9) ▼	2 (1.2) ▼	62 (4.4)
Sweden[1]	17 (5.1)	30 (4.5)	21 (4.1)	10 (2.2) ▼	55 (5.2)	0 (0.0) ▼	78 (3.4) ▲
ICCS 2022 average	26 (1.1)	36 (1.0)	18 (0.9)	34 (0.9)	46 (1.1)	12 (0.8)	58 (1.1)
Countries not meeting sample participation requirements							
Brazil	31 (4.3)	39 (4.6)	27 (4.3)	35 (4.9)	55 (4.5)	6 (2.0)	33 (4.4)
Denmark	38 (5.1)	17 (3.4)	22 (4.2)	20 (4.1)	31 (4.9)	3 (1.5)	87 (2.5)
German benchmarking participant meeting sample participation requirements							
North Rhine-Westphalia	22 (4.0)	31 (3.7)	13 (3.2)	58 (4.7) ▲	13 (2.6) ▼	5 (2.0) ▽	63 (4.4) ▽
German benchmarking participant not meeting sample participation requirements							
Schleswig-Holstein	23 (5.6)	28 (5.6)	7 (2.0)	43 (5.7)	9 (3.3)	7 (3.4)	63 (6.4)

(continued)

Table 2.10 (continued)

Country	Percentages of students at schools where principals consider as an important aim of civic and citizenship education:					
	Promoting students' sense of belonging to the global community	Supporting the development of effective strategies to reduce racism	Preparing students for future political engagement	Promoting the capacity to defend one's own point of view	Promoting students' participation in school life	Promoting students' engagement for a fairer and more peaceful world
Bulgaria	15 (2.9)	0 (0.0) ▽	1 (0.7) ▽	12 (2.4)	18 (3.3)	28 (4.0)
Chinese Taipei	6 (2.1) ▽	3 (1.3)	3 (1.3)	6 (1.9) ▽	13 (2.9)	31 (3.8)
Colombia	4 (1.7) ▽	1 (0.7) ▽	2 (1.2)	5 (2.7)	15 (3.3)	27 (4.5)
Croatia[1]	9 (2.7)	1 (0.7) ▽	3 (1.5)	13 (2.8)	13 (2.7)	29 (3.9)
Cyprus	16 (0.2) △	15 (0.2) ▲	2 (0.1) ▽	7 (0.1) ▽	19 (0.3)	28 (0.2)
Estonia	7 (2.5) ▽	0 (0.0) ▽	1 (0.8)	9 (2.7)	15 (4.7)	15 (3.6) ▼
France	7 (2.5) ▽	1 (0.8) ▽	2 (1.2)	13 (3.1)	9 (2.8) ▽	23 (4.5)
Italy	28 (5.2) ▲	2 (1.1)	0 (0.0) ▽	3 (1.6) ▽	8 (2.1) ▽	23 (3.2)
Latvia[1]	9 (2.5)	0 (0.0) ▽	15 (3.4) ▲	16 (3.1)	24 (3.5)	25 (3.7)
Lithuania	8 (2.2)	0 (0.0) ▽	1 (0.6) ▽	4 (1.7) ▽	26 (3.5) △	22 (3.3)
Malta	23 (10.9)	1 (0.1) ▽	0 (0.0) ▽	0 (0.0) ▽	18 (7.2)	38 (7.3)
Netherlands†	22 (5.0)	4 (2.2)	4 (2.5)	17 (4.1)	14 (2.9)	45 (6.0) ▲
Norway (9)[1]	14 (3.4)	6 (2.5)	0 (0.3) ▽	11 (2.7)	15 (3.6)	35 (4.8)
Poland	7 (2.0) ▽	2 (1.2)	2 (1.1)	11 (2.5)	42 (3.8) ▲	18 (3.1) ▽
Romania	7 (2.2) ▽	3 (1.2)	3 (1.0)	13 (3.4)	20 (6.0)	42 (6.7) ▲
Serbia	10 (2.7)	3 (1.4)	1 (0.9)	14 (3.2)	20 (3.5)	19 (3.1) ▽
Slovak Republic	9 (2.5)	1 (0.9)	4 (1.7)	19 (3.4) △	18 (3.2)	6 (2.1) ▼
Slovenia	9 (2.4)	1 (0.9)	1 (0.9)	13 (2.6)	16 (3.1)	27 (3.7)
Spain	9 (2.5)	4 (1.6)	0 (0.0) ▽	6 (1.7) ▽	11 (2.7) ▽	45 (4.5) ▲
Sweden[1]	28 (4.3) ▲	11 (2.8) △	1 (1.0)	9 (2.9)	11 (2.8) ▽	29 (3.9)
ICCS 2022 average	12 (0.8)	3 (0.3)	2 (0.3)	10 (0.6)	17 (0.8)	28 (1.0)
Countries not meeting sample participation requirements						
Brazil	9 (2.6)	10 (2.9)	2 (1.2)	6 (2.1)	8 (2.3)	37 (4.5)
Denmark	13 (3.1)	0 (0.0)	11 (2.8)	8 (2.6)	1 (0.5)	51 (4.5)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	10 (2.8)	12 (2.9)	11 (3.3) △	13 (3.0) △	20 (3.0)	29 (4.1)
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	7 (3.6)	10 (3.8)	10 (4.1)	24 (6.4)	29 (6.4)	37 (6.8)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

Table 2.11 Percentages of teachers selecting different aims of civic and citizenship education as one of the three most important aims

Country	Percentages of teachers who consider as an important aim of civic and citizenship education:						
	Promoting knowledge of social, political and civic institutions	Promoting respect for and safeguard of the environment	Promoting students' knowledge of the connections between local and global issues	Developing students' skills and competencies in conflict resolution	Promoting knowledge of citizens' rights and responsibilities	Promoting students' participation in the local community	Promoting students' critical and independent thinking
Bulgaria†	28 (1.4) △	45 (1.1)	16 (1.0)	38 (1.5) ▽	38 (1.6)	9 (1.0) ▽	43 (1.6) ▼
Chinese Taipei	20 (1.1)	38 (1.1) ▽	27 (1.0) ▲	48 (1.0) △	36 (1.2)	9 (0.7) ▽	67 (1.3) ▲
Croatia	21 (1.5)	41 (1.4) ▽	13 (1.0) ▽	46 (1.9) △	42 (1.3) △	12 (1.0)	52 (1.2) ▽
Italy	24 (1.0) △	60 (1.7) ▲	10 (0.6) ▽	23 (1.0) ▼	48 (1.4) ▲	6 (0.5) ▽	53 (1.2)
Lithuania	12 (0.9) ▽	56 (1.5) △	14 (0.7) ▽	45 (1.2) △	27 (1.7) ▽	20 (0.9) △	56 (1.2)
Malta	14 (1.9) ▽	57 (2.5) ▲	16 (1.9)	25 (2.8) ▼	35 (3.4)	14 (1.3)	61 (2.4) △
Norway (9)	27 (1.3) △	29 (1.4) ▼	18 (1.3) △	35 (1.6) ▽	23 (1.3) ▼	10 (0.9) ▽	65 (1.5) △
Poland	17 (1.3) ▽	39 (1.2) ▽	21 (1.2) △	49 (1.4) △	27 (0.9) ▽	23 (1.7) ▲	47 (1.5) ▽
Romania	17 (1.4)	54 (1.6) △	13 (1.2) ▽	45 (1.9) △	37 (1.7)	21 (1.4) △	40 (2.0) ▼
Serbia	22 (2.4)	44 (1.6)	12 (1.2) ▽	45 (2.3)	46 (1.8) ▲	7 (1.0) ▽	60 (2.3) △
Slovak Republic	26 (1.3) △	45 (1.4)	17 (1.1)	42 (1.7)	40 (1.9) △	8 (0.8) ▽	52 (1.1) ▽
Slovenia	19 (0.9)	47 (1.0)	13 (0.7) ▽	41 (1.3)	32 (1.4) ▽	10 (0.7) ▽	57 (1.1)
Spain	8 (0.7) ▼	44 (1.5)	13 (0.8) ▽	59 (1.4) ▲	30 (1.1) ▽	4 (0.6) ▽	62 (1.6) △
ICCS 2022 average	20 (0.4)	46 (0.4)	16 (0.3)	42 (0.5)	36 (0.5)	12 (0.3)	55 (0.4)
Countries not meeting sample participation requirements							
Brazil	33 (1.6)	45 (1.4)	28 (2.2)	33 (1.5)	40 (1.7)	7 (1.0)	34 (2.1)
Colombia	35 (3.1)	53 (3.0)	16 (2.1)	48 (2.5)	43 (3.4)	19 (2.3)	23 (1.9)
Cyprus	22 (1.5)	45 (1.6)	14 (1.1)	34 (1.8)	35 (1.8)	9 (0.8)	50 (1.7)
Denmark	26 (3.6)	15 (3.2)	19 (3.7)	30 (4.6)	28 (3.5)	6 (1.3)	84 (2.7)
Estonia	32 (1.4)	24 (1.2)	26 (1.2)	38 (1.2)	44 (1.4)	10 (0.7)	60 (1.4)
France	34 (1.7)	37 (1.7)	6 (0.8)	17 (1.2)	58 (1.9)	6 (0.9)	58 (1.8)
Latvia	21 (1.5)	35 (1.5)	22 (1.4)	28 (1.7)	35 (1.4)	7 (0.8)	58 (1.4)
Netherlands	23 (1.8)	34 (2.1)	10 (1.4)	38 (1.8)	18 (2.2)	14 (1.8)	64 (2.1)
Sweden	14 (1.0)	37 (1.6)	12 (1.0)	25 (1.3)	48 (1.4)	2 (0.5)	70 (1.4)
German benchmarking participant not meeting sample participation requirements							
North Rhine-Westphalia	18 (0.7)	36 (1.1)	15 (0.6)	46 (1.3)	15 (0.6)	4 (0.4)	67 (0.9)

(continued)

Table 2.11 (continued)

Country	Percentages of teachers who consider as an important aim of civic and citizenship education:					
	Promoting students' sense of belonging to the global community	Supporting the development of effective strategies to reduce racism	Preparing students for future political engagement	Promoting the capacity to defend one's own point of view	Promoting students' participation in school life	Promoting students' engagement for a fairer and more peaceful world
Bulgaria†	8 (1.0) ▽	2 (0.3) ▽	2 (0.3) ▽	19 (1.2) △	19 (1.3) △	28 (1.5)
Chinese Taipei	5 (0.5) ▽	4 (0.5)	2 (0.4)	6 (0.6) ▽	14 (0.8)	26 (1.0) ▽
Croatia	8 (0.7) ▽	3 (0.5) ▽	2 (0.3) ▽	22 (1.0) △	6 (0.6) ▽	29 (1.1)
Italy	20 (0.9) △	9 (0.7) △	1 (0.2) ▽	8 (0.6) ▽	5 (0.6) ▽	32 (1.0) △
Lithuania	8 (0.9) ▽	2 (0.5) ▽	1 (0.3) ▽	15 (0.9)	20 (1.2) △	21 (1.1) ▽
Malta	15 (2.3) △	8 (1.1) △	2 (0.5)	6 (2.0) ▽	14 (1.9)	31 (2.8)
Norway (9)	16 (1.2) △	10 (1.0) △	3 (0.4)	13 (1.2) ▽	12 (0.9) ▽	38 (1.9) △
Poland	7 (0.8) ▽	5 (0.5)	4 (0.6) △	16 (0.8)	27 (1.5) ▲	17 (0.9) ▼
Romania	8 (0.7) ▽	8 (0.8) △	5 (0.6) △	22 (1.1) △	21 (1.4) △	41 (1.5) ▲
Serbia	10 (0.8)	4 (0.5) ▽	2 (0.4)	16 (1.6)	13 (1.3)	31 (1.4)
Slovak Republic	8 (0.8) ▽	5 (0.7)	4 (0.7) △	27 (1.2) ▲	10 (1.1) ▽	12 (1.0) ▼
Slovenia	12 (0.8)	4 (0.5) ▽	2 (0.3)	24 (1.0) △	13 (0.6)	24 (0.9) ▽
Spain	10 (0.9)	7 (0.8) △	1 (0.2) ▽	11 (0.9) ▽	10 (0.9) ▽	39 (1.3) ▲
ICCS 2022 average	10 (0.3)	5 (0.2)	2 (0.1)	16 (0.3)	14 (0.3)	28 (0.4)
Countries not meeting sample participation requirements						
Brazil	9 (1.3)	9 (1.0)	5 (0.6)	11 (1.0)	11 (1.1)	30 (1.9)
Colombia	9 (1.0)	1 (0.4)	6 (1.7)	5 (0.9)	9 (1.3)	24 (2.2)
Cyprus	12 (1.1)	13 (1.0)	14 (1.2)	11 (0.9)	15 (1.2)	26 (1.5)
Denmark	13 (3.3)	7 (3.1)	16 (3.7)	13 (2.5)	4 (1.6)	40 (3.5)
Estonia	8 (0.8)	1 (0.3)	2 (0.4)	19 (1.1)	11 (0.8)	22 (1.2)
France	8 (1.0)	9 (1.0)	3 (0.5)	24 (1.4)	9 (1.0)	29 (1.4)
Latvia	14 (1.1)	1 (0.3)	6 (0.6)	26 (1.5)	23 (1.6)	21 (1.3)
Netherlands	15 (2.1)	10 (1.6)	7 (1.2)	31 (1.4)	11 (1.6)	44 (1.7)
Sweden	15 (1.0)	18 (1.2)	2 (0.5)	10 (1.0)	12 (0.9)	33 (1.7)
German benchmarking participant not meeting sample participation requirements						
North Rhine-Westphalia	11 (0.6)	14 (0.8)	5 (0.5)	19 (0.7)	8 (0.6)	39 (0.9)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

The national contexts survey collected information about three areas of accountability in relation to achieving civic and citizenship education learning objectives. National centers were asked to complete questions relating to the use of assessment and reporting of learning objectives related to civic and citizenship education for students at the target grade. Using questions with dichotomous categories ("yes" or "no") they were asked whether students in the target grade are expected to be formally assessed with regard to learning outcomes of civic and citizenship education or to receive formal reports or grades regarding their learning outcomes of civic and citizenship education, and whether schools are expected to inform parents about the aims of and approaches to civic and citizenship education. In 11 out of the 24 education systems participating in ICCS 2022, there was a formal assessment of target grade students in civic and citizenship education (Table 2.12). For 16 systems it was reported that there were formal reports or grades given for this subject area. In only seven systems, schools were expected to inform parents about the learning objectives of civic and citizenship education.

2.7 Teachers' Participation in Training Courses and Preparedness for Civic-Related Teaching

The national contexts survey asked national centers to indicate whether, in their education system, civic and citizenship education was a mandatory part of teacher education at the pre-service level and at the in-service level for different groups of target-grade teachers (Table 2.13). The results show that preparation for civic and citizenship education tends to be mandatory for teachers of human/social science and, in a majority of education systems, for teachers of the language arts, teachers of religion/ethics, and teachers of "other" subjects. Less commonly, it was reported as mandatory for teachers of mathematics and sciences and for specialist teachers. There was an expectation in most education systems that teachers of human/ social sciences would have in-service or continuing education or professional development in this learning area. Specialist teachers were expected to have this preparation in almost half of the countries, and, in some systems, it was also mandatory for the group of teachers of other subjects.

As in the previous cycle, the ICCS 2022 teacher questionnaire included a set of optional questions only administered to teachers of subjects that, within the national context, were considered as related to civic and citizenship education.[2] Among these questions, there was a question about teachers' participation in professional development courses, during pre-service and/or in-service training, on the following topics: human rights; voting and elections; the global community and international organizations; the environment and environmental sustainability; emigration and immigration; equal opportunities for men and women; citizens' rights and responsibilities; the constitution and political systems; responsible internet use (e.g., privacy, source reliability, social media); critical and independent thinking; conflict resolution; global issues (such as world poverty, international conflicts, child labor, social justice); and diversity and inclusiveness.

A review of the national percentages of teachers who attended training courses on these topics, in pre-service and/or in-service programs, shows a wide variation across participating countries (Table 2.14). On average across participating countries, the highest percentages were recorded for responsible internet use (66%), conflict resolution (65%), diversity and inclusiveness (59%), critical and independent thinking (57%), human rights (54%), citizens' rights and responsibilities (53%), and the environment and environmental sustainability (51%). It is interesting to note that, on average across countries, only 37% of teachers reported that they had attended teacher training courses on voting and elections, which might be considered a key topic in this learning area. However, there was also considerable variation in the national percentages ranging from 11% in Italy to 90% in Chinese Taipei.

Teachers of civic-related subjects were also asked to what extent they felt prepared to teach the topics and skills related to civic and citizenship education that were also included in the question on teacher training, which allows making comparisons across the two sets of items. When reviewing the percentages of teachers who indicated to feel very or quite well prepared (Table 2.15), the results suggest high levels of teacher preparedness across all topics and skills. The highest percentages were recorded, on average, for critical and independent thinking (91%), citizens' rights and responsibilities (90%), human rights (89%), equal opportunities for men and women (87%), responsible internet use (87%), conflict resolution (86%), and global issues (85%). In spite of the relatively low percentages of teachers reporting attendance of training courses on voting and elections, 79% of teachers on average felt very or quite well prepared to teach this topic (ranging from 61% in Italy to 96% in Chinese Taipei).

[2]National centers were asked to identify those subjects that, at the national level, are considered more directly related to civic and citizenship education and adapt the question accordingly. National centers were advised to base their adaptation of the term "civic and citizenship education" on their national curriculum documents.

Table 2.12 Country approaches to the assessment and reporting of civic and citizenship education outcomes of target grade students as reported by the ICCS 2022 national contexts survey

Country	Students in the target grade are expected to be formally assessed with regard to learning outcomes of civic and citizenship education	Students in the target grade receive formal reports or grades regarding their learning outcomes of civic and citizenship education at the end of school terms or years	Schools are expected to inform parents of students at the target grade about aims of and approaches to civic and citizenship education
Brazil	No	No	Yes
Bulgaria	No	No	No
Chinese Taipei	Yes	Yes	Yes
Colombia	Yes	Yes	No
Croatia	No	No	No
Cyprus	No	No	No
Denmark	No	Yes	Yes
Estonia	Yes	Yes	Yes
France	Yes	Yes	No
Italy	Yes	Yes	Yes
Latvia	No	Yes	No
Lithuania	No	No	No
Malta	Yes	No	No
Netherlands	No	No	No
Norway	Yes	Yes	No
Poland	Yes	Yes	Yes
Romania	Yes	No	No
Serbia	Yes	Yes	Yes
Slovak Republic	Yes	Yes	No
Slovenia	No	Yes	Yes
Spain	No	Yes	No
Sweden	Yes	Yes	No
German benchmarking participants			
North Rhine-Westphalia	No	Yes	No
Schleswig-Holstein	No	Yes	No

Table 2.13 Civic and citizenship education coverage in initial and in-service training of target grade teachers as reported in the ICCS 2022 national contexts survey

Country	Civic and citizenship education mandatory part of pre-service/initial teacher education						
	Specialist teachers of civic and citizenship education	Teachers of language arts	Teachers of human/ social sciences	Teachers of mathematics	Teachers of sciences	Teachers of religion/ethics	Teachers of other subjects
Brazil		●	●	●	●	●	●
Bulgaria		●	●			●	●
Chinese Taipei	●	●	●	●	●		●
Colombia			●			●	
Croatia		●	●	●	●	●	●
Cyprus		●	●				
Denmark			●				
Estonia	●		●				
France			●				
Italy							
Latvia							
Lithuania		●	●	●	●	●	●
Malta			●		●	●	●
Netherlands	●	●	●			●	●
Norway	●	●	●	●	●	●	●
Poland	●						
Romania			●				
Serbia		●	●		●		●
Slovak Republic	●	●	●	●	●	●	●
Slovenia			●			●	
Spain		●	●	●	●	●	●
Sweden		●	●	●	●	●	●
German benchmarking participants							
North Rhine-Westphalia	●		●				
Schleswig-Holstein	●		●				

(continued)

Table 2.13 (continued)

Country	In-service, continuing education or professional development for civic and citizenship education offered						
	Specialist teachers of civic and citizenship education	Teachers of language arts	Teachers of human/ social sciences	Teachers of mathematics	Teachers of sciences	Teachers of religion/ethics	Teachers of other subjects
Brazil	●	●	●	●	●	●	●
Bulgaria	●		●			●	●
Chinese Taipei	●		●				
Colombia			●				
Croatia							
Cyprus		●	●				
Denmark			●				
Estonia	●		●				
France			●				
Italy		●	●	●	●	●	●
Latvia							
Lithuania		●	●	●	●	●	●
Malta			●			●	●
Netherlands	●	●	●	●	●	●	●
Norway							
Poland	●	●	●	●	●	●	●
Romania			●				
Serbia							
Slovak Republic	●						
Slovenia							
Spain							
Sweden		●	●	●	●	●	●
German benchmarking participants							
North Rhine-Westphalia	●		●				
Schleswig-Holstein	●		●				

Table 2.14 Teachers' participation in training courses on topics related to civic and citizenship education

Country	Percentages of teachers who report to have attended as part of pre-service or in-service training courses that address:						
	Human rights	Voting and elections	The global community and international organizations	The environment and environmental sustainability	Emigration and immigration	Equal opportunities for men and women	Citizens' rights and responsibilities
Bulgaria†	54 (4.3)	37 (4.0)	52 (3.8) ▲	58 (3.7) △	44 (4.6)	38 (4.1)	60 (4.5)
Chinese Taipei	90 (2.3) ▲	90 (2.2) ▲	72 (2.8) ▲	89 (2.2) ▲	50 (3.1) ▲	95 (1.7) ▲	91 (2.1) ▲
Croatia	32 (1.3) ▼	18 (1.2) ▼	18 (1.2) ▼	30 (1.7) ▼	17 (1.2) ▼	21 (1.3) ▼	26 (1.2) ▼
Italy	33 (1.3) ▼	11 (0.9) ▼	21 (1.1) ▼	54 (1.2)	26 (1.0) ▼	30 (1.3) ▼	37 (1.1) ▼
Lithuania	59 (2.8)	36 (2.5)	50 (2.6) △	53 (3.4)	47 (2.7) △	42 (2.7)	62 (2.7) △
Malta	45 (4.7) ▽	12 (2.6) ▼	33 (5.7)	48 (4.3)	41 (3.7)	54 (3.6) △	49 (4.7)
Norway (9)	30 (3.2) ▼	26 (2.8) ▼	30 (3.0) ▼	28 (3.1) ▼	27 (3.1) ▼	27 (2.8) ▼	25 (2.6) ▼
Poland	84 (3.8) ▲	76 (3.6) ▲	75 (4.3) ▲	57 (4.9)	68 (4.8) ▲	62 (5.1) ▲	83 (4.0) ▲
Romania	57 (4.1)	46 (3.8) △	47 (3.9)	52 (3.3)	47 (3.9) △	51 (4.3)	61 (3.8) △
Serbia	46 (4.6)	24 (4.2) ▼	18 (3.7) ▼	47 (4.2)	19 (3.9) ▼	34 (6.6)	57 (4.5)
Slovak Republic	57 (3.3)	30 (2.8) ▽	37 (3.3)	47 (2.4)	29 (2.4) ▽	31 (2.9) ▼	46 (3.1) ▽
Slovenia	66 (2.0) ▲	49 (2.7) ▲	48 (2.1) △	55 (2.1)	50 (1.7) ▲	48 (2.1)	62 (2.2) △
Spain	42 (3.7) ▼	21 (2.8) ▼	27 (2.9) ▼	46 (3.3)	32 (3.5)	50 (3.8)	33 (3.1) ▼
ICCS 2022 average	54 (0.9)	37 (0.8)	41 (0.9)	51 (0.9)	38 (0.9)	45 (1.0)	53 (0.9)
Countries not meeting sample participation requirements							
Brazil	77 (3.6)	53 (3.1)	65 (3.5)	75 (4.5)	69 (3.5)	74 (3.2)	77 (3.0)
Colombia	51 (4.9)	54 (6.3)	32 (5.0)	61 (5.1)	31 (4.9)	46 (5.6)	52 (5.9)
Cyprus	50 (2.5)	16 (2.0)	29 (2.4)	53 (2.7)	36 (2.6)	52 (2.5)	43 (2.5)
Denmark	74 (5.6)	73 (6.7)	70 (6.4)	38 (5.8)	58 (6.1)	53 (7.0)	76 (5.1)
Estonia	62 (3.6)	42 (3.1)	46 (3.3)	57 (3.2)	36 (3.4)	47 (3.1)	55 (3.3)
France	34 (4.4)	29 (3.7)	34 (3.8)	43 (4.0)	35 (3.9)	33 (3.3)	37 (4.1)
Latvia	74 (4.7)	52 (4.6)	63 (4.5)	61 (5.0)	50 (4.9)	50 (5.2)	72 (4.4)
Netherlands	61 (6.6)	69 (7.7)	82 (3.8)	79 (3.8)	75 (4.5)	66 (4.9)	69 (3.7)
Sweden	78 (2.4)	63 (2.8)	75 (3.7)	72 (4.1)	77 (3.1)	78 (3.7)	78 (3.0)
German benchmarking participant not meeting sample participation requirements							
North Rhine-Westphalia	40 (1.6)	31 (1.4)	30 (1.9)	36 (1.9)	31 (1.4)	40 (1.5)	32 (1.5)

(continued)

Table 2.14 (continued)

Country	Percentages of teachers who report to have attended as part of pre-service or in-service training courses that address:					
	The constitution and political systems	Responsible internet use (e.g., privacy, source reliability, social media)	Critical and independent thinking	Conflict resolution	Global issues (e.g., world poverty, international conflicts, child labor, social justice)	Diversity and inclusiveness
Bulgaria†	58 (4.7) ▲	60 (4.5)	61 (3.7)	73 (3.9) △	53 (4.1)	56 (4.3)
Chinese Taipei	89 (2.3) ▲	90 (2.1) ▲	83 (3.0) ▲	85 (2.7) ▲	85 (2.8) ▲	85 (2.4) ▲
Croatia	19 (1.1) ▼	46 (1.7) ▼	35 (1.7) ▼	43 (1.9) ▼	25 (1.7) ▼	34 (1.7) ▼
Italy	24 (0.9) ▼	73 (1.2) △	36 (1.2) ▼	44 (1.4) ▼	28 (1.2) ▼	79 (1.1) ▲
Lithuania	44 (2.3)	75 (2.6) △	75 (2.7) ▲	86 (2.4) ▲	54 (3.8)	52 (2.7) ▽
Malta	23 (4.7) ▼	67 (6.3)	49 (5.2)	44 (5.7) ▼	42 (4.6)	64 (6.1)
Norway (9)	29 (2.8) ▼	40 (3.4) ▼	36 (3.2) ▼	36 (3.4) ▼	37 (3.6) ▼	29 (2.9) ▼
Poland	82 (3.9) ▲	90 (2.3) ▲	77 (3.4) ▲	89 (2.5) ▲	77 (4.0) ▲	59 (4.8)
Romania	48 (3.6)	65 (3.5)	62 (3.1)	67 (3.1)	51 (3.7)	58 (2.8)
Serbia	26 (4.3) ▼	58 (6.0)	46 (4.4) ▼	70 (5.8)	30 (6.5) ▼	66 (6.6)
Slovak Republic	39 (3.2)	55 (3.4) ▼	60 (3.5)	65 (3.3)	49 (2.8)	55 (2.8)
Slovenia	65 (2.1) ▲	82 (1.4) ▲	77 (2.1) ▲	81 (1.5) ▲	58 (2.0) ▲	66 (2.1) △
Spain	25 (3.1) ▼	57 (3.7) ▽	45 (3.1) ▼	65 (3.1)	33 (3.1) ▼	59 (3.3)
ICCS 2022 average	44 (0.9)	66 (1.0)	57 (0.9)	65 (0.9)	48 (1.0)	59 (1.0)
Countries not meeting sample participation requirements						
Brazil	69 (3.1)	70 (3.1)	71 (3.5)	70 (3.2)	75 (3.1)	83 (2.7)
Colombia	41 (5.2)	54 (6.1)	52 (5.8)	63 (4.6)	44 (5.7)	68 (3.0)
Cyprus	16 (1.9)	61 (2.6)	64 (2.5)	63 (2.5)	45 (2.5)	60 (2.5)
Denmark	74 (5.5)	48 (6.6)	65 (7.6)	61 (6.8)	64 (6.8)	49 (6.3)
Estonia	45 (3.0)	64 (3.2)	66 (3.1)	73 (2.9)	52 (3.1)	52 (3.5)
France	40 (4.1)	41 (3.6)	35 (3.9)	36 (4.2)	41 (4.5)	40 (4.3)
Latvia	60 (5.1)	82 (3.2)	92 (2.1)	85 (3.3)	58 (4.7)	63 (4.8)
Netherlands	73 (5.0)	81 (5.2)	90 (2.6)	79 (3.0)	81 (3.9)	76 (2.9)
Sweden	73 (3.3)	67 (3.5)	82 (2.7)	67 (4.1)	81 (3.3)	76 (2.7)
German benchmarking participant not meeting sample participation requirements						
North Rhine-Westphalia	40 (1.6)	51 (1.5)	54 (1.6)	62 (1.7)	44 (1.7)	49 (1.8)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

Table 2.15 Teachers' preparedness for teaching civic and citizenship education topics and skills

Country	Percentages of teachers who feel very well or quite well prepared to teach the following topics and skills:						
	Human rights	Voting and elections	The global community and international organizations	The environment and environmental sustainability	Emigration and immigration	Equal opportunities for men and women	Citizens' rights and responsibilities
Bulgaria†	87 (3.3)	88 (3.2) △	86 (4.6) ▲	85 (4.9)	84 (5.0) ▲	83 (4.5)	87 (3.9)
Chinese Taipei	93 (2.4)	96 (1.9) ▲	85 (3.2) ▲	89 (2.6)	41 (3.4) ▼	95 (2.3) △	97 (1.5) △
Croatia	82 (1.3) ▽	65 (1.5) ▼	50 (1.6) ▼	81 (1.2) ▽	54 (1.8) ▼	80 (1.1) ▽	78 (1.2) ▼
Italy	85 (1.1) ▽	61 (1.5) ▼	61 (1.6) ▽	91 (1.1) △	74 (1.2)	89 (0.8) △	91 (0.8)
Lithuania	81 (2.2) ▽	76 (2.0)	73 (2.2)	80 (1.7) ▽	84 (1.6) ▲	78 (2.1) ▽	90 (1.3)
Malta	88 (3.3)	78 (4.1)	66 (4.1)	91 (3.7) △	71 (4.4)	90 (2.7)	89 (3.6)
Norway (9)	96 (1.4) △	96 (1.2) ▲	85 (2.3) ▲	89 (2.1) △	92 (2.0) ▲	96 (1.3) △	89 (2.1)
Poland	98 (1.0) △	99 (0.6) ▲	90 (3.0) ▲	81 (3.7)	96 (1.5) ▲	93 (1.9) △	99 (0.6) △
Romania	88 (2.0)	69 (3.7) ▽	64 (3.4) ▽	72 (2.9) ▼	70 (3.0)	83 (3.2)	86 (3.6)
Serbia	98 (1.0) △	76 (3.9)	64 (4.6)	88 (3.6)	71 (5.3)	89 (4.9)	94 (2.6)
Slovak Republic	89 (1.6)	80 (2.6)	68 (2.9)	87 (1.5) △	72 (2.7)	82 (2.2) ▽	91 (1.5)
Slovenia	85 (1.5) ▽	74 (1.8) ▽	57 (2.0) ▼	77 (1.8) ▽	66 (1.6) ▽	78 (1.7) ▽	88 (1.1)
Spain	88 (2.1)	69 (3.3) ▼	62 (3.3) ▽	84 (2.3)	79 (2.5) △	92 (1.6) △	88 (2.1)
ICCS 2022 average	89 (0.6)	79 (0.7)	70 (0.9)	84 (0.8)	73 (0.8)	87 (0.7)	90 (0.6)
Countries not meeting sample participation requirements							
Brazil	87 (2.8)	81 (2.9)	68 (4.2)	80 (4.6)	88 (2.2)	94 (1.6)	91 (2.6)
Colombia	84 (2.6)	80 (3.5)	51 (4.7)	83 (3.5)	67 (4.2)	90 (1.8)	92 (1.9)
Cyprus	84 (1.7)	51 (2.5)	55 (2.5)	80 (2.0)	71 (2.4)	90 (1.6)	85 (1.5)
Denmark	94 (3.7)	96 (3.0)	82 (5.0)	77 (4.8)	87 (3.9)	88 (5.4)	95 (2.6)
Estonia	83 (2.4)	76 (2.7)	56 (3.2)	79 (3.0)	51 (3.2)	85 (2.4)	91 (2.0)
France	91 (2.0)	94 (1.6)	84 (3.3)	87 (2.2)	89 (2.6)	92 (2.4)	94 (1.8)
Latvia	96 (1.4)	90 (2.4)	82 (3.8)	85 (2.9)	80 (4.0)	91 (3.3)	98 (0.8)
Netherlands	65 (4.6)	77 (3.2)	71 (4.1)	81 (2.5)	69 (5.0)	85 (4.7)	71 (3.2)
Sweden	99 (0.6)	96 (1.4)	94 (1.6)	92 (2.2)	96 (1.8)	97 (1.8)	99 (0.7)
German benchmarking participant not meeting sample participation requirements							
North Rhine-Westphalia	84 (1.4)	73 (1.8)	57 (2.0)	83 (1.4)	63 (1.8)	85 (1.3)	77 (1.7)

(continued)

Table 2.15 (continued)

Country	Percentages of teachers who feel very well or quite well prepared to teach the following topics and skills:					
	The constitution and political systems	Responsible internet use (e.g., privacy, source reliability, social media)	Critical and independent thinking	Conflict resolution	Global issues (e.g., world poverty, international conflicts, child labor, social justice)	Diversity and inclusiveness
Bulgaria†	85 (4.3) ▲	83 (3.4)	90 (3.0)	87 (3.2)	87 (4.1)	78 (5.8)
Chinese Taipei	92 (2.6) ▲	93 (2.0) △	90 (3.9)	82 (4.2)	88 (2.6)	88 (2.9) △
Croatia	50 (1.5) ▼	87 (1.2)	87 (1.2) ▽	89 (0.8) △	78 (1.1) ▽	76 (1.5) ▽
Italy	68 (1.6) ▽	86 (0.7)	90 (0.8)	73 (1.3) ▼	82 (1.2) ▽	91 (1.0) △
Lithuania	68 (2.4)	85 (1.4)	88 (1.8)	91 (1.2) △	83 (1.9)	71 (2.4) ▼
Malta	53 (7.4) ▼	89 (5.7)	91 (3.2)	74 (4.4) ▼	82 (3.9)	91 (3.4) △
Norway (9)	90 (1.7) ▲	96 (1.0) △	96 (1.6) △	88 (2.2)	95 (1.3) ▲	94 (1.5) ▲
Poland	98 (1.1) ▲	97 (1.3) ▲	97 (1.3) △	97 (1.3) ▲	95 (1.9) ▲	84 (2.9)
Romania	62 (4.0) ▽	76 (3.5) ▼	83 (3.1) ▽	87 (3.6)	77 (3.4) ▽	73 (2.6) ▽
Serbia	55 (7.4) ▼	92 (2.8)	94 (2.6)	97 (1.2) ▲	87 (3.0)	90 (2.9) △
Slovak Republic	72 (2.5)	87 (1.8)	87 (1.6) ▽	89 (2.7)	87 (1.8)	73 (2.1) ▽
Slovenia	69 (1.7)	84 (1.5)	92 (1.0)	87 (1.4)	79 (1.5) ▽	79 (1.5)
Spain	69 (3.3)	72 (2.6) ▼	93 (1.6) ▼	82 (2.2)	81 (2.3)	80 (2.9)
ICCS 2022 average	72 (1.1)	87 (0.7)	91 (0.6)	86 (0.7)	85 (0.7)	82 (0.8)
Countries not meeting sample participation requirements						
Brazil	73 (3.4)	82 (2.3)	88 (2.5)	77 (2.6)	85 (2.8)	88 (1.9)
Colombia	71 (3.7)	74 (4.3)	84 (3.3)	88 (1.8)	70 (3.8)	78 (3.9)
Cyprus	42 (2.3)	76 (1.8)	91 (1.6)	87 (1.6)	84 (1.3)	84 (1.9)
Denmark	97 (2.1)	85 (5.1)	94 (2.7)	83 (5.7)	90 (4.7)	71 (7.5)
Estonia	70 (2.7)	88 (1.9)	93 (1.6)	83 (2.2)	74 (2.7)	75 (3.3)
France	88 (2.3)	76 (3.4)	82 (2.6)	59 (3.6)	88 (2.7)	65 (4.0)
Latvia	90 (2.3)	89 (3.0)	95 (1.8)	91 (3.6)	82 (3.2)	85 (3.8)
Netherlands	64 (4.6)	84 (2.8)	95 (1.5)	79 (2.5)	85 (2.9)	69 (6.3)
Sweden	94 (1.7)	96 (1.0)	97 (1.7)	82 (2.5)	97 (1.0)	89 (2.2)
German benchmarking participant not meeting sample participation requirements						
North Rhine-Westphalia	68 (1.4)	79 (1.7)	93 (1.3)	89 (1.2)	84 (1.3)	63 (1.8)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

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Civic Knowledge

3

Chapter Highlights

Civic knowledge can be described across four levels of increasing complexity.

- Students working at Level D demonstrate familiarity with concrete, explicit content and examples relating to the basic features of democracy.
- Students working at Level C engage with the fundamental principles and broad concepts that underpin civics and citizenship.
- Students working at Level B typically demonstrate some specific knowledge and understanding of the most pervasive civic and citizenship institutions, systems, and concepts.
- Students working at Level A demonstrate an integrated knowledge and understanding of civic and citizenship concepts and demonstrate some critical perspective. (Fig. 3.1)

Civic knowledge varies more within countries than across countries.

- In every country, the range of civic knowledge scores covering the middle 90% of students spanned more than three levels on the civic knowledge scale.
- The difference between the highest and lowest average civic knowledge scale scores across countries was less than the span of 1.5 levels on the civic knowledge scale. (Table 3.9)

Civic knowledge increased between 2009 and 2016 and decreased between 2016 and 2022.

- Of the 11 countries that participated in all three cycles of ICCS, civic knowledge scores increased significantly between 2009 and 2016 in eight countries, and then decreased significantly between 2016 and 2022 in five of those eight countries.
- Across the 13 countries that participated in ICCS 2016 and ICCS 2022, the proportion of students achieving at Level B and above on the civic knowledge scale decreased from 70% to 64% and the proportion of students achieving below Level D increased from 9% to 13%.
- Six of these 13 countries recorded a statistically significant decrease in average student civic knowledge between 2016 and 2022.
- There were no statistically significant increases in civic knowledge between 2016 and 2022 in any country. (Tables 3.11, 3.12 and 3.13)

Civic knowledge is associated with student gender.

- Female students demonstrated higher civic knowledge than male students, this has been consistent across the three cycles of ICCS. (Table 3.15)

(continued)

W. Schulz et al., *Education for Citizenship in Times of Global Challenge*, https://doi.org/10.1007/978-3-031-65603-3_3

- The average civic knowledge scores of female students were statistically significantly higher than that of male students in 18 of 20 countries.
- Across all countries, the difference in average civic knowledge scale scores between female and male students was equivalent to roughly one third of a level on the ICCS scale. (Table 3.14)

Socioeconomic status, denoted by parental occupation, parental education, and number of books in the home, is significantly positively associated with student civic knowledge.

- Across countries, students in the high socioeconomic groups scored significantly higher on the civic knowledge scale than those in the lower socioeconomic groups. (Table 3.16)

Immigrant and language background are associated with student civic knowledge.

- In 16 of 20 countries, students from immigrant families had statistically significantly lower civic knowledge scores than students from non-immigrant families.
- In 16 of 20 countries, students who reported mainly speaking the language of the ICCS test at home had statistically significantly higher civic knowledge scale scores than those who reported speaking another language at home; the opposite difference was reported in two countries. (Table 3.17)

3.1 Introduction

In this chapter we begin by describing the civic knowledge assessment instrument and the proficiency scale derived from the International Civic and Citizenship Education Study (ICCS) test and data. We follow this with a description and discussion of the international student test results in ICCS 2022. We also look at the differences over time between these results and students' performance in those countries that participated in both ICCS 2016 and ICCS 2009. We conclude the chapter with an analysis of the associations between students' civic knowledge and background variables relating to students' age, gender, socioeconomic status, and immigrant and language backgrounds.

The content of this chapter relates to ICCS Research Question 2, which focuses on:

1. the extent to which students' civic knowledge varies among and within countries;
2. the associations between civic knowledge and student background; and
3. changes in students' civic knowledge since 2009.

3.2 Assessing Student Knowledge

ICCS 2022 is the fifth International Association for the Evaluation of Educational Achievement (IEA) international study to include measurement of civic knowledge. The first IEA study of civic education in 1971 included a 47-multiple-choice item test for 14-year-olds in nine countries (Torney et al., 1975). The IEA Civic Education Study (CIVED), conducted in 1999, included a 38-item multiple-choice test for 14-year-old students in 28 countries (Torney-Purta et al., 2001) and a 42-item test for 17- to 18-year-olds in 16 countries (Amadeo et al., 2002).

In ICCS, civic knowledge includes a student's capacity to recall information but extends beyond this to include their "ability to reason with and apply their knowledge" (Schulz et al., 2023, p. 26). The scope of civic knowledge, as assessed in ICCS, includes students' capacities to apply knowledge to concrete situations, but also to concepts associated with democratic values as they may relate to a range of contexts.

ICCS 2009 included a pool of 80 test items, comprising 74 multiple-choice and six constructed-response items. Items were first allocated to clusters of between 10 and 17 items each. Each cluster was allocated to three test booklets and was placed so that it appeared once in each of the first, second, and third positions across the booklets. Each student completed one test booklet. ICCS 2016 and 2022 also used this type of test design (partially balanced incomplete block design).

The ICCS 2016 civic knowledge test contained 88 items.[1] In ICCS 2022, the transition to computer-based delivery, as well as the increased focus on global citizenship education (GCED) and education for sustainable development (ESD) required an increase in the number of items relative to previous cycles. In preparation for this, 173 new test items were developed for inclusion in the ICCS 2022 field trial. The psychometric properties of these items were evaluated using the field trial data, and these analyses were used as the basis for selecting items for inclusion in the ICCS 2022 main survey test instrument.[2] Eighty-six new items were selected for inclusion in the ICCS 2022 main survey instrument. These were combined with 55 trend items (used in previous cycles of ICCS) such that the ICCS 2022 test instrument comprised a total of 141 items.[3] Of these items, 121 were distributed among 11 clusters that were delivered in parallel across the paper-based and computer-based delivery modes.[4] The remaining 20 items were distributed among three clusters that were delivered in the computer-based mode only. Consequently, the ICCS 2022 paper-based assessment comprised 11 clusters and the computer-based assessment (CBA) comprised 14 clusters.

The items in the 11 clusters delivered in both modes included a small number of decontextualized questions of knowledge or understanding, although most of the items were presented in units. Each unit typically included some brief contextual stimulus (an image or some text) that was followed by items relating to the context established by that stimulus. One hundred and eight items had a multiple-choice format and 13 items a constructed-response format.

Each of the three clusters delivered in the computer-based mode only (computer-enhanced modules) had a unique theme associated with civic participation. The items within each of these modules were presented in sequence in a form of narrative structure that used the module theme as a context for assessing students' civic knowledge. Six of these items had a multiple-choice and nine a constructed-response format, two were drag-and-drop items, and three required students to manipulate sliders to show their responses. These final two response formats were feasible only in the computer-based delivery mode.

The ICCS civic knowledge scale was established in 2009. Data collected in ICCS 2016 were reported against the same scale and used to expand the description of the scale. In ICCS 2022 we included a set of 55 items used in ICCS 2016 (26 used in both ICCS 2009 and 2016 and 29 first used in ICCS 2016) to provide the basis for reporting ICCS 2022 data on the existing ICCS civic knowledge scale. These 55 items were all distributed among the 11 clusters delivered in both the paper-based and computer-based modes in ICCS 2022.

The ICCS test of civic knowledge covers the four content and two cognitive domains described in the ICCS assessment framework (Schulz et al., 2023). Each test item references one content domain and one cognitive domain. The assessment instrument thus covered content from all domains and reflected the different applications of that content. The proportions of items across the four content domains were:

- Domain 1 (civic institutions and systems): 21%
- Domain 2 (civic principles): 36%
- Domain 3 (civic participation): 34%
- Domain 4 (civic roles and identities): 9%

The proportions across the two cognitive domains were:

- Domain 1 (knowing): 30%
- Domain 2 (reasoning and applying): 70%

In comparison with ICCS 2016, the test administered in ICCS 2022 contained a lower proportion of items associated with content domain 1 and a higher proportion of items associated with content domains 2 and 3. These differences are the result of three factors:

I. There were changes to the content structure in the ICCS 2022 assessment framework so that some item material that was allocated to content domain 1 in 2016, was reallocated to content domain 4 in 2022;
II. There was an increase in the number of items associated with content domain 2 as a result of the increased emphasis in ICCS 2022 on ESD; and

[1] In ICCS 2016, one item showed insufficient measurement properties to warrant inclusion in the final set of items for scaling.

[2] A full description of the test instrument development process is included in the ICCS 2022 technical report (Schulz et al., forthcoming).

[3] Data from one item were not used in the ICCS 2022 scaling.

[4] Six countries participated using the paper-based delivery mode and 18 countries participated using the computer-based delivery mode.

III. There was an increase in the number of items associated with content domain 3 in 2022 resulting from the inclusion of the three computer-based delivery only clusters with themes that focused on civic participation.

The ICCS civic knowledge reporting scale was developed in 2009 using the Rasch model (Rasch, 1960). The scale was set to have an average score of 500 and a standard deviation of 100 for equally weighted national samples in ICCS 2009 after excluding data from samples that had not met IEA sample participation requirements. The scale was established using data collected using paper-based delivery only. In ICCS 2022, depending on the country, data were either collected on paper or on computer. All ICCS 2022 data, regardless of the data collection mode, were equated to the ICCS civic knowledge reporting scale.

The ICCS research team did this by equating the ICCS 2022 paper-based and computer-based data, and by using the ICCS 2022 paper-based data as the link to the ICCS 2016 civic knowledge scale which was developed using paper-based data only. Student civic knowledge scores were derived based on students' responses to the test questions they completed. ICCS 2022 included a mode effect study in 11 countries which allowed for students' scores on the paper-based tests to be compared with the computer-based test scores of equivalent groups of students. The data from the mode effect study showed that the civic knowledge scores of the groups of students completing the tests on paper were generally slightly lower than those of equivalent groups of students completing the tests on computer, and that there was some variation in these differences across countries. In light of these results, a small (less than 5 scale point) adjustment was made to the scores of students in all countries using paper-based assessment in ICCS 2022, based on the average effect found across the 11 countries the mode effect study. This was implemented to support the fair reporting of student achievement on the ICCS civic knowledge scale regardless of the delivery mode of the test. Detailed descriptions of the scaling, equating, and reporting procedures for test items and student civic knowledge achievement will appear in the ICCS 2022 technical report (Schulz et al., forthcoming).

3.3 Establishing and Refining the ICCS Civic Knowledge Proficiency Scale

We established the ICCS described scale of civic knowledge in 2009 by considering the contents of test items together with their scaled difficulties derived from the data collected in ICCS 2009. We described the different civic and citizenship content and cognitive processes for each item and then ordered the items (from lowest to highest) according to their scaled difficulties. Analysis of the item content and relative difficulty allowed us to identify common themes of content and processes to characterize ranges (levels) of the scale.

This process was an iterative one in which we varied the positions of the boundaries and reviewed the conceptual content at each of the resulting tentative levels until each of the eventual three levels showed clearly distinctive characteristics, and a meaningful progression from low to high achievement was evident across the levels. The level boundaries were established at 395, 479 and 563 scale points. Following this process, we synthesized the content of the item descriptors within the levels in order to describe the key content and process characteristics at each level of civic knowledge.

In ICCS 2016, the labels given to the levels were changed (from numbers to letters), the level descriptors were reviewed and refined, and some examples of achievement reflecting content from ICCS 2016 were added. As part of ICCS 2022 the level descriptors were again reviewed and refined, and additional examples of achievement were included to supplement the scale descriptors. Although changes to the level descriptors and examples have been relatively small over the three cycles of ICCS, the process of review and refinement has been used to ensure that the description of the civic knowledge scale remains consistent with the assessment frameworks and instrument content across three cycles. For ICCS 2022, this included increasing the degree to which content associated with GCED and ESD is explicitly referenced within the scale.

3.4 The ICCS 2022 Civic Knowledge Proficiency Scale

The proficiency levels represent a hierarchy of civic knowledge in terms of increasing sophistication of content knowledge and cognitive process. Increasing levels on the scale typically represent increasingly complex content and cognitive processes, as they are demonstrated through student performance. However, it is important to note that all levels of this scale can include content related to both cognitive domains (knowing as well as reasoning and applying), and that the progression is not simply an extension from simple content knowledge at the bottom to reasoning and application at the top. The sophistication of demonstrable achievement assessed in any given item is a result of the interaction between the civic and citizenship content and the cognitive process applied to that content.

The scale broadly reflects hypothesized development from the concrete, familiar, and more mechanistic elements of civics and citizenship through to the wider policy and institutional processes that determine the shape of our civic communities. The scale is hierarchical in the sense that civic knowledge becomes more sophisticated as student achievement progresses up the scale. Although the scale does not describe a necessary sequence of learning, it does postulate that learning growth typically follows the sequence described by the scale. The scale was constructed with the assumption that any given student can demonstrate achievement of the scale contents below his or her measured level of achievement.

Across the cycles of ICCS, student civic knowledge has included concepts associated with ESD and GCED (Damiani & Fraillon, forthcoming). In ICCS 2009, sustainable development was included as a key concept in content domain 1 (*civic society and systems*) (Schulz et al., 2008). In ICCS 2016, environmental sustainability in civic and citizenship education was one the new key focus areas of the survey and was included as a key concept under content domain 1 (*civic society and systems*), and global citizenship was included as a key concept in content domain 4 (*civic identities*) (Schulz et al., 2016). Concepts associated with ESD and GCED have remained within scope for the test content assessed in ICCS and have consequently contributed to the measurement of civic knowledge and to the description of the ICCS civic knowledge scale. The two areas of ESD and GCED have been given greater explicit prominence in the ICCS 2022 assessment framework (Schulz et al., 2023), and the ICCS 2022 test instrument included a subset of items developed to assess ESD- and GCED-related content. At the time of developing these items, we left open the question of whether they would measure the same or a different dimension to that measured by the existing ICCS civic knowledge scale, although analyses of data from previous cycles of ICCS and from the ICCS 2022 field trial data suggested that it was likely that all items in the ICCS test instrument would contribute to a single measure of civic knowledge (Damiani & Fraillon, forthcoming; Schulz et al., forthcoming). As part of the scaling of ICCS 2022 main survey data, we evaluated the association between student achievement on ESD, GCED items, and the broader set of civic knowledge items and concluded that ESD and GCED achievement outcomes were measures that could continue to be reported as part of the ICCS civic knowledge scale.[5]

In ICCS 2022, the highest unbounded level is Level A. Levels B, C, and D are sequentially below Level A and the unbounded scale range beneath the lower boundary of Level D is called "Below Level D."

The ICCS civic knowledge proficiency scale (Fig. 3.1) includes descriptions of the scale's contents and the nature of the progression across the proficiency levels. For each proficiency level, examples of items illustrate the types of learning content and cognitive processes that students employ when responding to items from that level.

Students who achieve proficiency at Level D demonstrate familiarity with concrete, explicit content and examples relating to the basic features of democracy. They identify the intended outcomes of simple examples of rules and laws and recognize the explicit function of key civic institutions. They also recognize examples of respect for the rights of others, and they may see these rights as motivation for citizenship engagement. The key factors differentiating students' achievement at Level D from those at higher levels concern (a) students' demonstrated breadth of knowledge of the fundamental aspects of democracy and democratic institutions, and (b) students' capacity to engage with abstract concepts that extend beyond concrete, explicit examples of democratic principles and citizenship behaviors.

Students who achieve proficiency at Level C understand the fundamental principles and broad concepts that underpin civics and citizenship. Students operating at this level are familiar with some of the "big ideas" of civics and citizenship; they are generally able to accurately determine what is fair or unfair in familiar contexts and to demonstrate some knowledge of the basic operations of civic and civil institutions. Students working at Level C also typically demonstrate awareness of citizens' capacity to exert influence in their own local context. The key factors differentiating students' achievement at Level C from that at higher levels relate to (a) the degree of specificity of students' knowledge, and (b) the amount of mechanistic rather than relational thinking that students express in regard to the operations of civic and civil institutions.

Students working at Level B typically demonstrate some specific knowledge and understanding of the most pervasive civic and citizenship institutions, systems, and concepts. These students generally understand the interconnectedness between civic and civil institutions, and the processes and systems through which they operate, rather than being able to identify only their most obvious characteristics. Level B students are also able to demonstrate understanding of the connection between principles or key ideas and how these operate in policy or practice in everyday, familiar contexts. They can relate some formal civic processes to their everyday experience and are aware that the potential sphere of influence (and responsibility) of active citizens extends beyond their own local context. One key factor differentiating Level B from Level A is the degree to which students are able to use knowledge and understanding to evaluate and justify policies and practices.

Students working at Level A demonstrate a more integrated rather than a segmented knowledge and understanding of civic and citizenship concepts. They make evaluative judgments about the merits of policies and behaviors from given

[5]Details of these analyses are provided in the ICCS 2022 technical report (Schulz et al., forthcoming).

Level A: 563 score points and above
Students working at Level A make connections between the processes of social and political organization and influence, and the legal and institutional mechanisms used to control them. They generate accurate hypotheses on the benefits, motivations, and likely outcomes of institutional policies and citizens' actions. They integrate, justify, and evaluate given positions, policies, or laws based on the principles that underpin them. Students demonstrate familiarity with broad international economic forces and the strategic nature of active participation.

Students working at Level A, for example:
- Identify likely strategic aims of a program of ethical consumption
- Suggest mechanisms by which open public debate and communication can benefit society
- Relate democratic process to the inclusion of controversial issues in public debate
- Suggest related benefits of widespread intercultural understanding in society
- Justify the separation of powers between the judiciary and the parliament
- Relate the principle of fair and equal governance to laws regarding disclosure of financial donations to political parties
- Evaluate a policy with respect to equality and inclusiveness
- Identify a reason for having limited parliamentary terms
- Identify factors that may influence changes in voter turnout over time
- Identify the main feature of free-market economies and multinational company ownership

Level B: 479 to 562 score points
Students working at Level B demonstrate familiarity with the broad concept of representative democracy as a political system. They recognize ways in which institutions and laws can be used to protect and promote a society's values and principles. They recognize the potential role of citizens as voters in a representative democracy, and they generalize principles and values from specific examples of policies and laws (including human rights). Students demonstrate understanding of the influence that active citizenship can have beyond the local community. They generalize the role of the individual active citizen to broader civic societies and the world, including how this is enacted through global citizenship and ethical consumption.

Students working at Level B, for example:
- Relate the independence of a statutory authority to maintenance of public trust in decisions made by the authority
- Generalize the economic risk to developing countries of globalization from a local context
- Identify that informed citizens are better able to make decisions when voting in elections
- Relate the responsibility to vote with the representativeness of a democracy
- Describe the main role of a legislature/parliament
- Identify environmental and social motivations associated with ethical consumption
- Define the main role of a constitution
- Recognize the relationship between the government and the military in a democracy
- Identify a behavior consistent with identification as a global citizen
- Recognize the danger of government-controlled media
- Relate the responsibility for environmental protection to the actions of individual people

Level C: 395 to 478 score points
Students working at Level C demonstrate familiarity with equality, social cohesion, and freedom as principles of democracy. They relate these broad principles to everyday examples of situations in which protection of or challenge to the principles are demonstrated. Students also demonstrate familiarity with fundamental concepts of the individual as an active citizen: they recognize the necessity for individuals to obey the law; they relate individual courses of action to likely outcomes; and they relate personal characteristics to the capacity of an individual to effect civic change. They demonstrate familiarity with sustainable development and common examples associated with environmental sustainability.

Students working at Level C, for example:
- Relate freedom of the press to the accuracy of information provided to the public by the media
- Justify voluntary voting in the context of freedom of political expression
- Associate reducing waste from plastic packaging with living sustainably
- Identify that democratic leaders should be aware of the needs of the people over whom they have authority
- Recognize a common source of renewable energy
- Recognize that the United Nations Universal Declaration of Human Rights is intended to apply to all people
- Recognize citizenship as a human right
- Generalize about the value of the internet as a communicative tool in civic participation
- Identify that sustainable development is relevant to the whole world
- Recognize the value of being an informed voter
- Recognize that governments have a responsibility to all citizens
- Recognize the civic motivation behind an act of ethical consumerism

Level D: 311 to 394 score points
Students working at Level D recognize explicit examples representing basic features of democracy. They identify the intended outcomes of simple examples of rules and laws and recognize the motivations of people or institutions engaged in activities that contribute to equality and the common good.

Students working at Level D, for example:
- Recognize national defense is a key role of the military
- Relate the right to medical help to the motivation to work for an aid organization
- Relate equality of schooling to the need to understand the experiences of students with disabilities
- Recognize the relationship between the secret ballot and freedom of voter choice
- Recognize that volunteers provide a contribution to communities
- Recognize that all people are equal before the law

Fig. 3.1 ICCS civic knowledge scale with examples

perspectives and are able to justify positions or propositions and hypothesize outcomes based on their understanding of civic and citizenship systems and practices. Students working at Level A show understanding of how active citizenship practice can be deliberate and strategic and are able to evaluate active citizenship behaviors in light of their desired outcomes.

3.5 Sample ICCS Test Items

To provide a clearer understanding of the nature of the ICCS 2022 test and civic knowledge scale, this chapter presents 15 sample items. Nine of these items were included in both the paper-based and computer-based assessments. The remaining six items present the content of one of the three computer-based modules.

The sample items show the types and range of questions that the ICCS international test required students to answer as well as showing the types of responses that are indicative of the different levels of the civic knowledge scale. The data for each sample item (including calculation of the ICCS average) are drawn only from those countries that met the ICCS 2022 sample participation, test administration, and coding requirements for that item.

Each sample item is presented with the percentage of students that answered each item correctly. The correct response to each multiple-choice item is denoted with an asterisk (*). All multiple-choice items in ICCS were coded as either no credit (zero points) for an incorrect response or full credit (one point) for the correct response. The set of sample items includes four constructed-response items. These items are presented with summary information about how they were scored. Where it was possible for students to achieve scores of more than one point for an item, the percentages of students who achieved each individual score are presented.

3.5.1 Sample Items 1 and 2: Level D and Below

Sample item 1 (Table 3.1), located below Level D on the ICCS civic knowledge scale, was the first of two items presented together in a unit with a common stimulus. Students were presented with a set of rules associated with the use of a national park and asked, firstly, to recognize a purpose of having rules in the national park. Understanding the purpose of rules in given familiar, accessible contexts is foundational civic and citizenship education content, and could be anticipated to be at the lower end of the ICCS civic knowledge scale. Sample item 1 relates to content domain 1 (civic institutions and systems) and to cognitive domain 1 (knowing) of the ICCS assessment framework. On average across all countries, 91% of students achieved full credit on this item. The percentages across countries ranged from 84% to 97%.

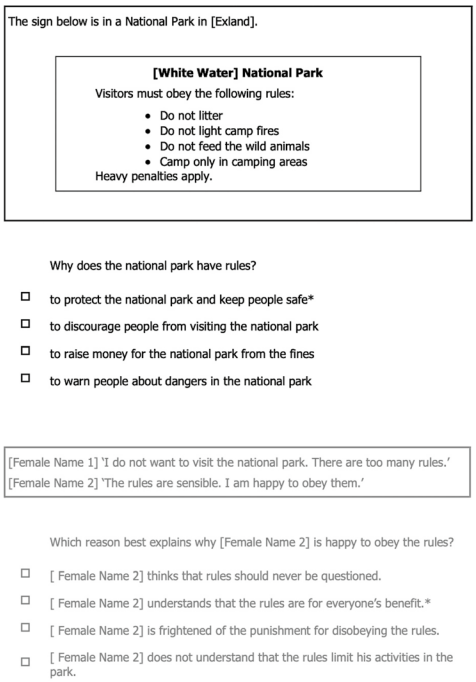
Sample item 2 (Table 3.2) is located in Level D on the ICCS civic knowledge scale. This item required students to reflect on the obligations of people to obey rules under given contexts. In the context of the national park, the obligation relates to an understanding of the rules having been created for the benefit of all park users which, as with sample item 1, represents foundational civic and citizenship education learning content, and can be considered as a context-specific precursor to engagement with the broader civic concept of the common good. Sample item 2 relates to content domain 4 (civic roles and identities) and to cognitive domain 1 (knowing). Across all countries, 86% of students, on average, achieved full credit on this item. The percentages across countries ranged from 74% to 94%.

Taken together as a set, sample items 1 and 2 illustrate engagement with concrete and familiar contexts and recognition of the purpose of application of rules that characterize achievement described at the lower end of the ICCS civic knowledge scale.

3.5.2 Sample Items 3, 4 and 5: Level C

Sample item 3 (Table 3.3) illustrates recognition of a fundamental principle of democracy (equality before the law). Extending beyond the concrete and familiar to recognizing principles is a key characteristic marking the transition from Level D and below to ICCS Level C. Sample item 3 relates to content domain 2 (civic principles) and cognitive domain 2 (reasoning and applying) of the ICCS assessment framework. In contrast to sample items 1 and 2 where students addressed the needs for and obligations associated with rules in a familiar context, in sample item 2, students need to recognize a threat to a democratic principle evident in a scenario. While the scenario may be unfamiliar to students, it is contrived to be a clear and flagrant violation of the principle. The reasoning underpinning recognition of potential violations to democratic principles in context is fundamental to developing effective capabilities in critical citizenship that are described at higher levels on the civic

Table 3.1 Sample items 1 (black) and 2 (grey) with percentage correct by country for sample item 1



Civic knowledge scale level	Civic knowledge scale difficulty
Below Level D	294
Item descriptor	
Recognizes a purpose of rules of behavior in a national park.	

ICCS assessment framework references	
Content domain	1. Civic institutions and systems
Cognitive domain	1. Knowing

Country	Percentage correct response
Bulgaria	84 (1.7)
Chinese Taipei	97 (0.7)
Colombia	87 (1.1)
Croatia[1]	96 (0.9)
Cyprus	86 (1.4)
Estonia	94 (1.3)
France	90 (1.2)
Italy	94 (1.0)
Latvia[1]	88 (1.4)
Lithuania	93 (1.0)
Malta	93 (1.7)
Netherlands†	90 (1.5)
Norway (9)[1]	92 (0.7)
Poland	94 (0.8)
Romania	84 (3.1)
Serbia	85 (1.5)
Slovak Republic	90 (1.4)
Slovenia	95 (0.9)
Spain	90 (1.2)
Sweden[1]	93 (1.2)
ICCS 2022 average	**91 (0.3)**

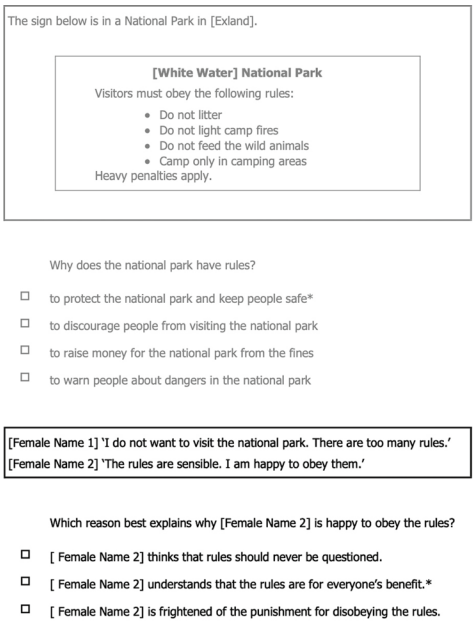
Countries not meeting sample participation requirements	
Brazil	86 (1.2)
Denmark	94 (0.8)
German benchmarking participant meeting sample participation requirements	
North Rhine-Westphalia	88 (1.3)
German benchmarking participant not meeting sample participation requirements	
Schleswig-Holstein	88 (2.2)

Notes:
* Correct response.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

knowledge scale. On average across countries, 68% of students achieved full credit on this item. The percentages across countries ranged from 54% to 80%.

Sample item 4 (Table 3.4) requires students to recognize a key purpose of political parties. The concept is addressed indirectly by having students consider a motivation for joining a party with a key purpose of parties represented in the correct response. Identifying the purpose of political parties may be a somewhat abstract concept for students in Grade 8, if they were asked to do so without some contextual support. Sample item 4 provides an example of students being offered the scaffold of the familiar context of motivation to engage in civic action to support students to reflect on the civic concept addressed by the item. Sample item 4 relates to content domain 1 (civic institutions and systems) and cognitive domain 2

Table 3.2 Sample items 1 (grey) and 2 (black) with percentage correct by country for sample item 2



Civic knowledge scale level	Civic knowledge scale difficulty
Level D	349
Item descriptor	
Identifies that rules can be established to benefit all people.	

ICCS assessment framework references	
Content domain	4. Civic roles and identities
Cognitive domain	1. Knowing

Country	Percentage correct response
Bulgaria	81 (2.0)
Chinese Taipei	90 (1.1)
Colombia	89 (1.3)
Croatia[1]	94 (0.9)
Cyprus	88 (1.3)
Estonia	89 (1.4)
France	82 (1.5)
Italy	75 (1.9)
Latvia[1]	78 (1.8)
Lithuania	81 (1.6)
Malta	90 (1.8)
Netherlands†	74 (1.8)
Norway (9)[1]	89 (1.0)
Poland	93 (0.8)
Romania	85 (1.9)
Serbia	85 (1.4)
Slovak Republic	84 (1.6)
Slovenia	91 (1.0)
Spain	82 (1.6)
Sweden[1]	92 (1.1)
ICCS 2022 average	**86 (0.3)**

Countries not meeting sample participation requirements	
Brazil	82 (1.2)
Denmark	89 (1.2)
German benchmarking participant meeting sample participation requirements	
North Rhine-Westphalia	89 (1.4)
German benchmarking participant not meeting sample participation requirements	
Schleswig-Holstein	88 (2.2)

Notes:
* Correct response.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

(reasoning and applying) of the ICCS assessment framework. On average, across all countries, 69% of students achieved full credit on this item. The percentages across countries ranged from 49% to 89%.

Sample item 5 (Table 3.5) is the second of the two items in a unit dealing with the concept of fake news. Students were presented with a definition of fake news, with the intention of having all students consider a common definition of the term rather than relying on their own individual definitions (which may vary considerably in scope and accuracy) when responding to the associated two items. In sample item 5, students were required to recognize an action that can be used to confirm the veracity of information presented in a news article. This item relates to the use of digital technologies for civic engagement which is one of the areas of extended focus in ICCS 2022 relative to ICCS 2016 (Schulz et al., 2023, p. 13). Achievement at

Table 3.3 Sample item 3 with percentage correct by country

[Male name 1] is charged with a serious offence. [Male name 1's] father is a senior politician. When the police find out that [Male name 1's] father is a senior politician they drop the charges and release [Male name 1].

Why are the actions of the police undemocratic?

- ☐ In a democracy people are innocent until proven guilty.
- ☐ In a democracy police do not have the right to charge someone with an offence.
- ☐ In a democracy all citizens have the right to legal representation.
- ☐ In a democracy the law must be applied equally to all.*

Civic knowledge scale level	Civic knowledge scale difficulty
Level C	457
Item descriptor	
Recognizes the principle of equality before the law.	

ICCS assessment framework references	
Content domain	2. Civic principles
Cognitive domain	1. Knowing

Country	Percentage correct response
Bulgaria	64 (2.1)
Chinese Taipei	80 (1.7)
Colombia	64 (2.0)
Croatia[1]	70 (2.0)
Cyprus	65 (2.1)
Estonia	65 (2.2)
France	75 (1.7)
Italy	80 (1.7)
Latvia[1]	54 (2.1)
Lithuania	68 (2.1)
Malta	68 (2.0)
Netherlands†	60 (1.9)
Norway (9)[1]	72 (1.3)
Poland	79 (1.2)
Romania	68 (3.7)
Serbia	62 (1.9)
Slovak Republic	69 (2.4)
Slovenia	78 (1.6)
Spain	68 (1.8)
Sweden[1]	73 (2.1)
ICCS 2022 average	**68 (0.5)**

Countries not meeting sample participation requirements	
Brazil	54 (1.64)
Denmark	62 (2.05)
German benchmarking participant meeting sample participation requirements	
North Rhine-Westphalia	72 (1.8)
German benchmarking participant not meeting sample participation requirements	
Schleswig-Holstein	73 (3.1)

Notes:
* Correct response.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Level C of the ICCS civic knowledge scale includes the capacity for students to recognize the relationships between actions and outcomes in their civic participation, this is the precursor to the more complex evaluative judgments that students demonstrate at higher levels. Sample item 5 requires students to do this in the context of digital participation and dealing with fake news. The item relates to content domain 3 (civic participation) and to cognitive domain 1 (knowing) of the ICCS assessment framework. On average across all countries, 75% of students achieved full credit on this item. The percentages across countries ranged from 58% to 92%.

Table 3.4 Sample item 4 with percentage correct by country

What is the most likely reason a person in a democracy would join a political party?

- ☐ to help the police with the enforcement of laws
- ☐ to decide on sentences for people found guilty of crimes
- ☐ to decide on the location of polling booths for national elections
- ☐ to participate in activities that influence government policy*

Civic knowledge scale level	Civic knowledge scale difficulty
Level C	461
Item descriptor	
Recognizes a key purpose of political parties.	

ICCS assessment framework references	
Content domain	1. Civic institutions and systems
Cognitive domain	2. Reasoning and applying

Country	Percentage correct response
Bulgaria	72 (2.0)
Chinese Taipei	86 (1.3)
Colombia	49 (2.0)
Croatia[1]	81 (1.6)
Cyprus	61 (2.2)
Estonia	76 (2.2)
France	60 (1.9)
Italy	59 (2.0)
Latvia[1]	54 (2.1)
Lithuania	70 (2.2)
Malta	59 (2.6)
Netherlands†	66 (2.1)
Norway (9)[1]	76 (1.5)
Poland	89 (1.1)
Romania	56 (4.1)
Serbia	70 (1.7)
Slovak Republic	67 (2.2)
Slovenia	83 (1.4)
Spain	58 (2.0)
Sweden[1]	76 (1.8)
ICCS 2022 average	**69 (0.5)**

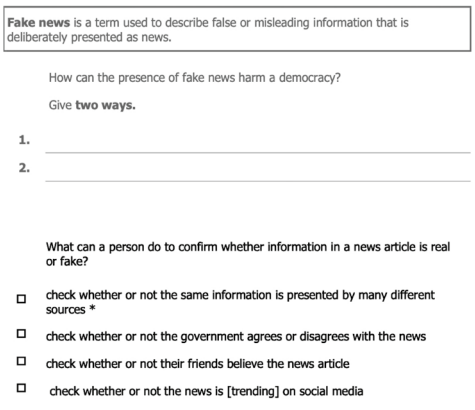
Countries not meeting sample participation requirements	
Brazil	49 (1.7)
Denmark	80 (1.4)
German benchmarking participant meeting sample participation requirements	
North Rhine-Westphalia	75 (1.6)
German benchmarking participant not meeting sample participation requirements	
Schleswig-Holstein	77 (3.1)

Notes:
* Correct response.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

3.5.3 Sample Items 6, 7 and 8: Level B

Sample items 6, 7 and 8 (shown in Table 3.6) form a unit dealing with the concept of ethical consumerism. Similar to the previously presented unit (see sample items 4 and 5), the unit begins with a definition of the core concept that is the subject of the unit in order to provide students with a common point of reference when answering the associated questions in the unit. Taken as a set, the three items address the concept of ethical consumerism from three different perspectives. All three items illustrate achievement at Level B on the ICCS civic knowledge scale in which students' conceptualizations of their roles as citizens is generalized to broader civic societies and the world.

Table 3.5 Sample items 5 (black) and 9 (grey) with percentage correct by country for sample item 5



Civic knowledge scale level	Civic knowledge scale difficulty
Level C	442
Item descriptor	
Suggests a solution for how fake news can be identified.	

ICCS assessment framework references	
Content domain	3. Civic participation
Cognitive domain	1. Knowing

Country	Percentage correct response
Bulgaria	66 (2.3)
Chinese Taipei	79 (1.4)
Colombia	71 (2.2)
Croatia[1]	81 (1.6)
Cyprus	60 (2.0)
Estonia	80 (1.8)
France	-
Italy	80 (2.3)
Latvia[1]	-
Lithuania	58 (1.5)
Malta	72 (1.8)
Netherlands†	84 (1.6)
Norway (9)[1]	89 (1.0)
Poland	76 (1.4)
Romania	62 (3.0)
Serbia	63 (1.7)
Slovak Republic	77 (2.0)
Slovenia	83 (1.5)
Spain	74 (1.7)
Sweden[1]	92 (1.1)
ICCS 2022 average	**75 (0.4)**

Countries not meeting sample participation requirements	
Brazil	66 (1.8)
Denmark	83 (1.3)
German benchmarking participant meeting sample participation requirements	
North Rhine-Westphalia	69 (2.2)
German benchmarking participant not meeting sample participation requirements	
Schleswig-Holstein	73 (2.8)

Notes:
* Correct response.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
\- Item not administered in country

The first item, sample item 6, requires students to recognize a common example of ethical consumerism. Sample item 6 relates to content domain 3 (civic participation) and cognitive domain 1 (knowing) of the ICCS assessment framework. Across all countries, 48% of students, on average, achieved full credit on this item. The percentages across particpants ranged from 24% to 73%.

The second item in the unit, sample item 7, requires students to recognize that the working conditions of producers of products is information relevant to ethical consumerism. This item relates to content domain 3 (civic participation) and cognitive domain 1 (knowing) of the ICCS assessment framework. Across all countries, 52% of students, on average, achieved full credit on this item. The percentages across countries ranged from 29% to 75%.

Table 3.6 Sample items 6, 7 and 8 with percentage correct by country

[Female name 1] lives in a wealthy country and wants to be [an ethical consumer]. This means that she thinks carefully about what she buys based on how it was made, where it comes from, and the environmental impacts of her purchasing choices.

Sample item 6

Which one of the following actions is an example of [Female name 1] being [an ethical consumer]?

- ☐ She buys only free-range eggs. *
- ☐ She buys only the cheapest clothing.
- ☐ She buys only products from small companies.
- ☐ She buys only products with good online reviews.

Sample item 7

[Female name 1] visits a website with information for [ethical consumers].

What information is she most likely to find on this website?

- ☐ how much products cost to be delivered
- ☐ what the working conditions are for people who make the products *
- ☐ how popular the products are on the international market
- ☐ which countries the products are readily available in

Sample item 8

[Female name 1] decides to only buy products that are produced close to where she lives.

What about [Female name 1's] decision makes her an [ethical consumer]?

- ☐ The products are transported short distances to get to her. *
- ☐ The products are of better quality than those made elsewhere.
- ☐ It is easy for her to contact the producers if she has a complaint.
- ☐ It is likely that she can get her friends to buy the same products.

Sample item	Civic knowledge scale level	Civic knowledge scale difficulty
Sample item 6	Level B	561
Sample item 7	Level B	548
Sample item 8	Level B	547
	Item descriptors	
Sample item 6	Recognizes an example of ethical consumption (free-range eggs).	
Sample item 7	Recognizes that working conditions of producers are associated with ethical consumption.	
Sample item 8	Integrates reduced freight distance/resources with ethical consumption.	
	ICCS assessment framework references	
	Content domain	**Cognitive domain**
Sample item 6	3. Civic participation	1. Knowing
Sample item 7	3. Civic participation	1. Knowing
Sample item 8	2. Civic principles	2. Reasoning and applying

Country	Percentage correct sample item 6	Percentage correct sample item 7	Percentage correct sample item 8
Bulgaria	40 (1.9)	51 (2.0)	34 (2.1)
Chinese Taipei	62 (1.8)	39 (1.7)	55 (1.9)
Colombia	24 (1.5)	49 (1.7)	40 (1.9)
Croatia[1]	56 (2.0)	45 (1.9)	42 (2.4)
Cyprus	41 (2.0)	44 (1.9)	34 (2.0)
Estonia	48 (2.5)	54 (2.5)	56 (2.4)
France	46 (2.2)	55 (1.9)	54 (1.9)
Italy	56 (2.4)	50 (3.4)	61 (3.0)
Latvia[1]	30 (1.9)	51 (1.9)	50 (2.0)
Lithuania	46 (2.2)	58 (2.0)	60 (2.4)
Malta	33 (2.3)	53 (2.5)	55 (2.6)
Netherlands†	58 (1.9)	65 (2.3)	72 (1.9)
Norway (9)[1]	54 (1.8)	70 (1.5)	82 (1.3)
Poland	60 (1.7)	63 (1.8)	49 (1.7)
Romania	51 (4.3)	46 (2.9)	43 (1.8)
Serbia	47 (2.3)	29 (1.8)	38 (1.7)
Slovak Republic	46 (2.0)	49 (2.0)	40 (1.8)
Slovenia	47 (2.0)	46 (1.6)	47 (1.8)
Spain	48 (1.9)	51 (2.0)	44 (1.7)
Sweden[1]	69 (1.9)	73 (1.8)	84 (1.6)
ICCS 2022 average	**48 (0.5)**	**52 (0.5)**	**52 (0.5)**
Countries not meeting sample participation requirements			
Brazil	19 (1.5)	41 (1.8)	42 (2.0)
Denmark	71 (1.7)	74 (1.3)	81 (1.6)
German benchmarking participant meeting sample participation requirements			
North Rhine-Westphalia	73 (2.1)	75 (1.6)	72 (2.0)
German benchmarking participant not meeting sample participation requirements			
Schleswig-Holstein	77 (2.5)	75 (2.8)	75 (2.6)

Notes:
* Correct response.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Sample item 8, the final item in the unit, requires students to make the connection between the environmental benefits of reduced transport of goods and ethical consumption. The environmental sustainability perspective on ethical consumption of the item, together with the need for students to infer the relationship between the ethical consumption and transport, results in the item being associated with content domain 2 (civic principles) and cognitive domain 2 (reasoning and applying) of the ICCS assessment framework. Across all countries, 52% of students, on average, achieved full credit on this item. The percentages across countries ranged from 34% to 84%.

3.5.4 Sample Item 9: Level B (One Point) and Level A (Two Points)

The ICCS civic knowledge test instrument included 22 constructed-response items (13 presented in both the computer-based and paper-based tests and nine presented in the computer-based tests only). Ten of the constructed-response items had a maximum score of one point and 12 had a maximum score of two points. Expert scorers in each country scored students' responses to these items. ICCS ensured that all scorers were trained to the international standards established for ICCS as part of the centralized international scorer training program that ICCS ran for experts responsible for scorer training and scoring within each country.[6]

Sample item 9 (Table 3.7) is the constructed-response item paired with sample item 5 in the unit about fake news. Students were first provided a working definition of fake news. As stated earlier (see sample item 5), this allowed students to consider a common definition of the term rather than relying on their own individual definitions (which may vary considerably in scope and accuracy). Furthermore, any students who may have previously been unfamiliar with the term or the concept of fake news had the opportunity to use the definition provided to reason about its possible impacts on democracy.

Students were asked to provide two responses in sample item 9. The request for two responses provides an opportunity to evaluate students' capacity to generate responses to multifaceted concepts. There are six different categories of response worthy of credit for this item. Students who were able to generate responses meeting the standards in any two categories were awarded full credit (two score points), corresponding to Level A on the ICCS civic knowledge scale. Students who could provide one response deemed worthy of a credit response were awarded partial credit (one score point), corresponding to Level B on the scale.

Students who achieved full credit on this item were accurately hypothesizing more than one potential consequence of an increasingly pervasive civic and citizenship phenomenon. While the item itself does not require students to formulate a complex argument, it does require them to demonstrate the capacity to identify aspects of the content necessary for building a complex argument. In contrast, students providing one response only were hypothesizing one outcome which, while demonstrating the capacity to reason about a challenge to civic principles presented by fake news, does not demonstrate the capacity to propose multiple perspectives relating to the issue or consequently to develop associated complex arguments.

Sample item 9 relates to content domain 1 (civic institutions and systems) and cognitive domain 2 (reasoning and applying) of the ICCS assessment framework. Across participating countries, 66% of students, on average, were able to achieve at least a score of one on this item. The percentage across countries ranged from 42% to 86%. In contrast, 21% of students, on average, were able to achieve a score of two on this item. The percentages across countries ranged from 9% to 45%.

3.5.5 Sample Computer-Enhanced Module (Sample Items 10–15)

With the transition to computer-based delivery in ICCS 2022, we took the opportunity to expand the range of the ICCS test content to include items that could not easily (if at all) be delivered on paper.

As described previously, the computer-based version of the ICCS 2022 test instrument included three computer-enhanced modules. As these modules were new to ICCS 2022, we included a maximum of one computer-enhanced module within any individual test form provided to students. Each computer-enhanced module was presented once in each of the first, second, and third positions within a test form (with the remaining two positions occupied by clusters of test items common to computer-based and paper-based modes). Consequently nine of 14 computer-based test forms each contained one computer-enhanced module.

[6]Two different scorers independently scored about 100 booklets per country in order to assess the inter-rater agreement per booklet. The only data included in the analysis were those from constructed items with an inter-rater agreement of at least 60%.

Table 3.7 Sample items 5 (grey) and 9 (black) with summary scoring guide and percentage correct by country

Fake news is a term used to describe false or misleading information that is deliberately presented as news.

How can the presence of fake news harm a democracy?

Give **two ways.**

1. _____

2. _____

Sample item 9 scoring : Score2

Includes reasons from **two different** categories listed below.

1. It undermines a shared concept of truth
2. It prompts unreasonable social reaction to issues
3. It can be used to distort or manipulate normal democratic processes
4. It can be used to avoid political accountability and justice for actions
5. It erodes public trust in civic institutions/experts/ political system/the mainstream media
6. It can lead to poor political/legislative decision making.

Sample item 5 scoring: Score 1

Includes one reason from the categories listed above

What can a person do to confirm whether information in a news article is real or fake?

- ☐ check whether or not the same information is presented by many different sources *
- ☐ check whether or not the government agrees or disagrees with the news
- ☐ check whether or not their friends believe the news article
- ☐ check whether or not the news is [trending] on social media

Notes:

* Correct response.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

	Civic knowledge scale level	Civic knowledge scale difficulty
Score 1	Level B	488
Score 2	Level A	690
	Item descriptors	
Score 1	Predicts how fake news can damage democracy (one reason).	
Score 2	Predicts how fake news can damage democracy (two reasons).	
	ICCS assessment framework references	
	Content domain	**Cognitive domain**
Score 1	1. Civic institutions and systems	2. Reasoning and applying
Score 2	1. Civic institutions and systems	2. Reasoning and applying

Country	Percentage score at least 1	Percentage score 2
Bulgaria	42 (2.1)	12 (1.4)
Chinese Taipei	86 (1.1)	45 (1.6)
Colombia	56 (2.3)	13 (1.2)
Croatia[1]	70 (1.8)	19 (1.5)
Cyprus	61 (1.8)	9 (1.1)
Estonia	81 (2.1)	37 (2.6)
France	45 (2.0)	10 (1.2)
Italy	62 (2.5)	12 (1.7)
Latvia[1]	60 (2.2)	19 (1.7)
Lithuania	62 (2.0)	20 (1.7)
Malta	68 (2.7)	20 (1.8)
Netherlands†	83 (1.4)	32 (1.7)
Norway (9)[1]	67 (1.7)	17 (1.1)
Poland	72 (1.5)	25 (1.5)
Romania	73 (2.3)	27 (2.8)
Serbia	55 (2.5)	14 (1.4)
Slovak Republic	66 (2.0)	19 (1.7)
Slovenia	67 (1.8)	14 (1.4)
Spain	70 (2.2)	26 (1.9)
Sweden[1]	82 (1.6)	26 (1.9)
ICCS 2022 average	**66 (0.5)**	**21 (0.4)**
Countries not meeting sample participation requirements		
Brazil	64 (1.6)	27 (2.2)
Denmark	77 (1.6)	29 (1.7)
German benchmarking participant meeting sample participation requirements		
North Rhine-Westphalia	77 (1.7)	25 (2.0)
German benchmarking participant not meeting sample participation requirements		
Schleswig-Holstein	80 (3.0)	29 (3.1)

The computer-enhanced test modules had two key characteristics that differentiated them from the larger set of 121 items common to computer-based and paper-based modes. Firstly, each computer-enhanced module included at least one dynamically interactive item that could not be replicated on paper. Secondly, each computer-enhanced test module had a unique theme that was referenced by all items within the module. The items were logically sequenced within each module to follow a loose narrative associated with the theme. The three modules had themes relating to:

(i) The configuration and use of an app to support members to vote on issues associated with the management of a sports club;
(ii) The rules used to govern an election for student representatives within a school; and
(iii) The way a charity organization spends its funds.

The items and contextual information that comprised the Voting App module, including summary information associated with the ICCS civic knowledge scale levels, assessment framework references, and percentage of students achieving each available score on the items, are reported to illustrate the key features of the computer-enhanced modules in ICCS (Table 3.8).

This is followed by a discussion of the content of the Voting App module (Figs. 3.2 to 3.9) including sample items 10–15.

Each of the computer-enhanced modules included an introduction screen (Fig. 3.2) and a conclusion screen (Fig. 3.9) to notify students that they were beginning and ending a section of the test that had different characteristics to the rest of the test they were completing.

The Voting App module comprised five items. Students were first introduced to the contextual theme of the module (Fig. 3.2), before being asked to reflect on the difference between having members vote on decisions in comparison to having decisions made by a committee (sample item 10, Fig. 3.3). In this first item students reflected on the difference between using a direct or representative democracy in a familiar context (a sports club) and without using the discipline-specific terms. In addition, the item served to provide to students a clear contextual purpose for the voting app.

On average across the 18 CBA countries, 66% of students correctly responded to this item, with percentages ranging from 48% to 82%. Correctly responding to this item corresponded to achievement at Level C on the ICCS civic knowledge scale (Table 3.8).

Students were then presented with a drag-and-drop item in which they were required to match three potential app features with democratic values they reflect (Fig. 3.4—top). Students who matched all three app features with the corresponding values received one score point (Fig. 3.4—bottom). The values and app features shown in sample item 11 were chosen to reflect concepts associated with proper election conduct such as having each person being able to vote once only, through to broader values of equity and inclusivity, reflected in the accessibility requirement for the app.

On average across the 18 CBA countries, 11% of students matched all three app features with their corresponding values, with percentages ranging from two to 30%. This corresponded to achievement at Level A on the ICCS civic knowledge scale (Table 3.8).

Students were then introduced to the interactive task in the module (see Figs. 3.5 and 3.6). In the interactive task, students were required to select three configuration options for the voting app with the explicit aim of achieving the fairest voting outcome. This task was scored with two points awarded to students correctly configuring each of the three options and one point for students correctly configuring two of the three options.

On average across the 18 CBA countries, 85% of students configured at least two options correctly, with percentages ranging from 73% to 95%. This corresponded to achievement at Level D on the ICCS civic knowledge scale. In contrast, on average across the 18 CBA countries, 52% of students configured all three options correctly, with percentages ranging from 43% to 69%. This corresponded to achievement at Level B on the ICCS civic knowledge scale (Table 3.8).

The options selected by students affected the voting report that students could see as part of the subsequent task (Fig. 3.7). In this task, students were required to consider two of the configuration options, voter privacy and the duration of the voting period, and to explain which of the two they believed was more important in ensuring that the vote was fair. Students were presented with a voting report that showed the outcome of the vote conducted using the configuration options that students had selected in the previous task. Students could view the voting report and hide the report to check the configuration options they had selected.

The contents of the voting report varied with respect to each configuration option. The total number of people voting was influenced by both the voting time period and whether or not voter identity was kept private. Feedback on these issues was also presented under the feedback from members section in the voting report. Student responses were scored according to their explanation of the contribution of their selected app setting to the potential fairness of the voting.

Students who selected “voter privacy” received credit if their explanation referred to the principle of secret ballot (this could also be expressed as the potential for voters to feel unable to vote honestly if their vote was known by others) or to a more general right to privacy.

Table 3.8 Summary information of sample items 10–15 comprising the Voting App module

Scale level	Sample item #	Scale difficulty	Score / maximum score	ICCS 2022 average*	Minimum percentage achieving score*	Maximum percentage achieving score*	Item descriptor	Content domain	Cognitive domain
Level A	11	784	1/1	11 (0.3)	2 (0.5)	30 (1.6)	Suggests app features to support the implementation of democratic values in a club vote.	3. Civic participation	2. Reasoning and applying
Level A	15	663	1/1	29 (0.5)	11 (1.3)	69 (1.8)	Gives a reason against requiring a quorum when voting.	3. Civic participation	2. Reasoning and applying
Level A	14	604	1/1	41 (0.5)	22 (1.8)	80 (1.4)	Gives a reason to support requiring a quorum when voting.	3. Civic participation	2. Reasoning and applying
Level B	12	537	2/2	52 (0.5)	43 (1.9)	69 (1.6)	Relates all three of, the length of a voting period, voter identification and voter confidentiality to electoral fairness.	3. Civic participation	2. Reasoning and applying
Level B	13	531	1/1	55 (0.5)	37 (1.6)	78 (1.6)	Relates one of voter privacy or the length of a voting period to the fairness of a process of voting.	3. Civic participation	2. Reasoning and applying
Level C	10	478	1/1	66 (0.5)	48 (2.1)	82 (1.4)	Compares direct and representative democratic approaches applied in a familiar context.	3. Civic participation	2. Reasoning and applying
Level D	12	391	1/2	85 (0.4)	73 (1.9)	95 (0.7)	Relates two of, the length of a voting period, voter identification and voter confidentiality to electoral fairness.	3. Civic participation	2. Reasoning and applying

Note:
*Percentages based on data from ICCS 2022 CBA countries only.

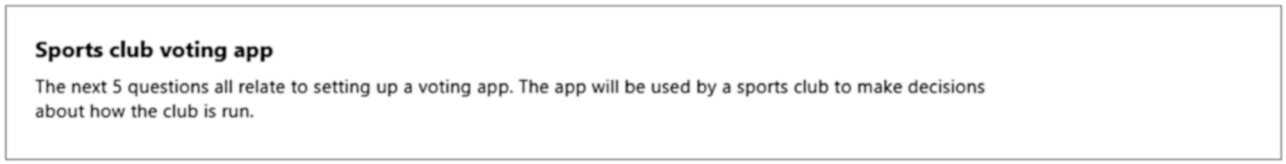


Fig. 3.2 Introduction to Voting App module

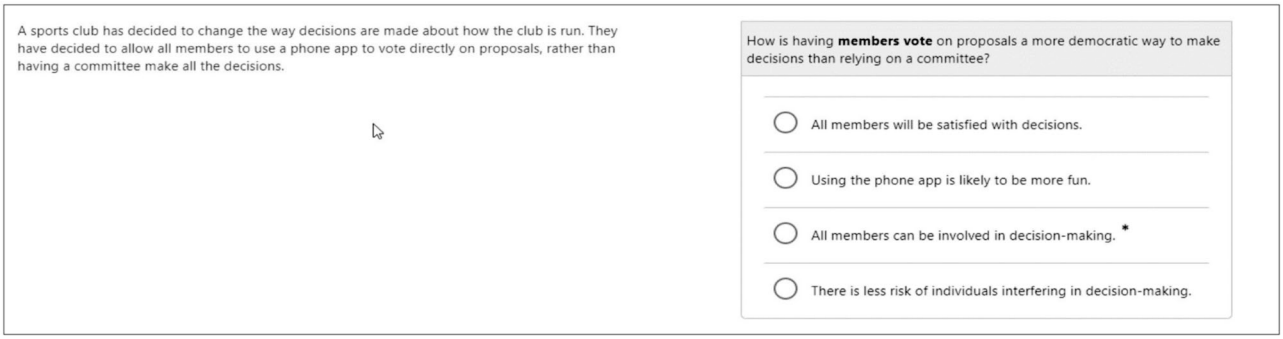


Fig. 3.3 Sample item 10 (Voting App module item 1)

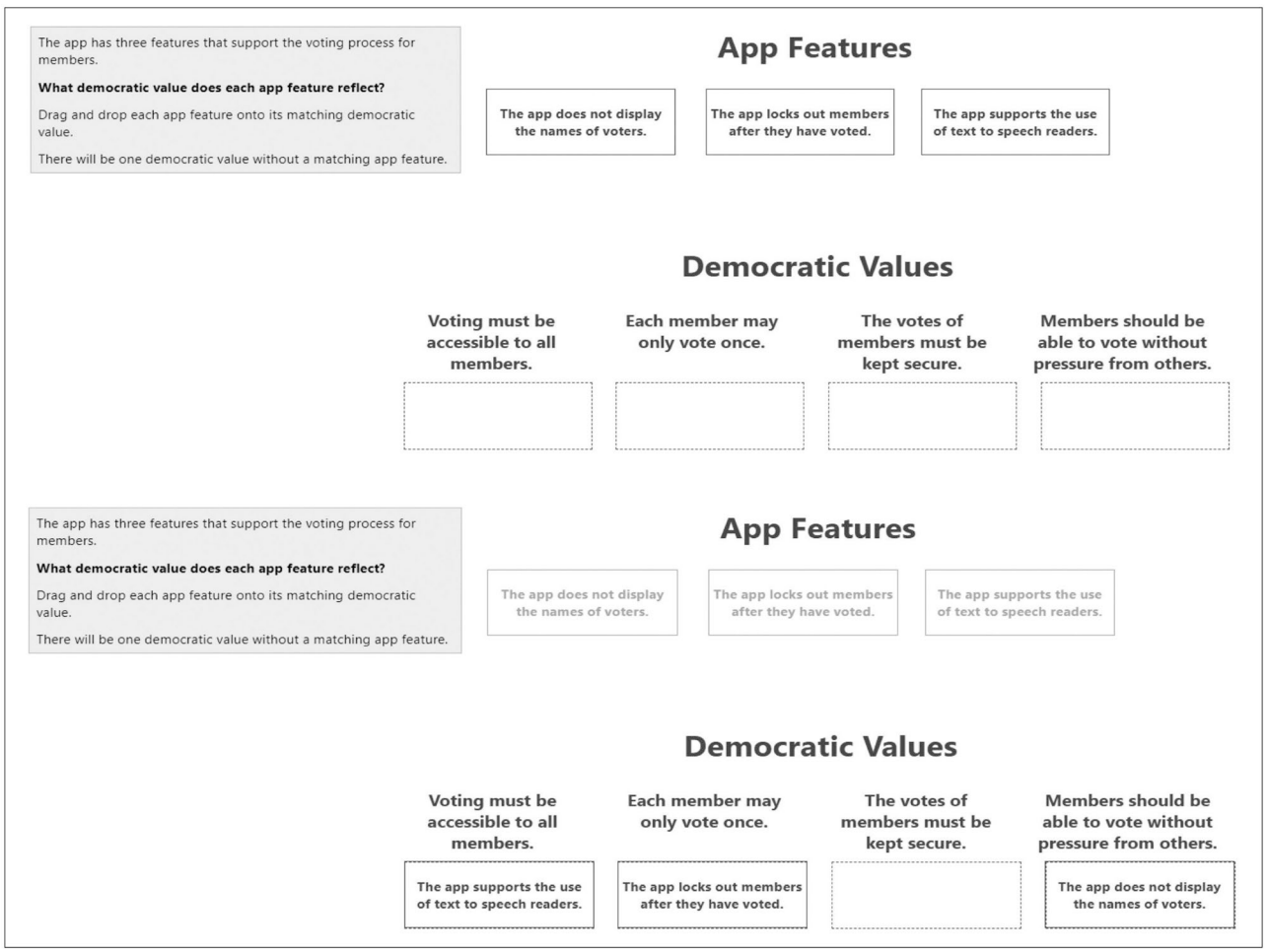


Fig. 3.4 Sample item 11 (Voting App module item 2)

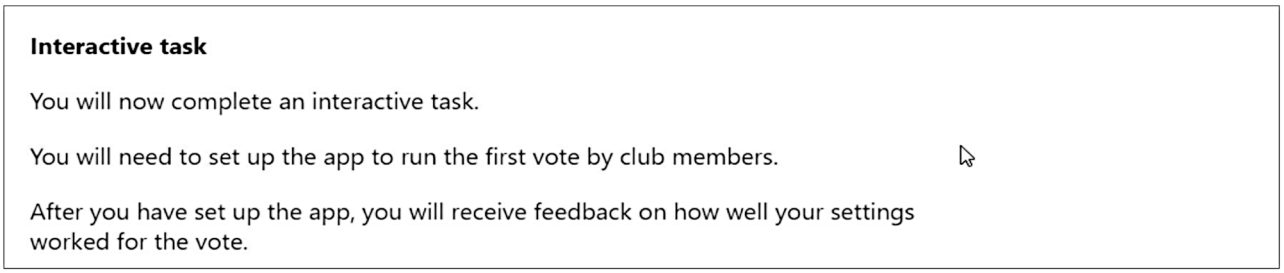


Fig. 3.5 Introduction to Voting App module interactive task

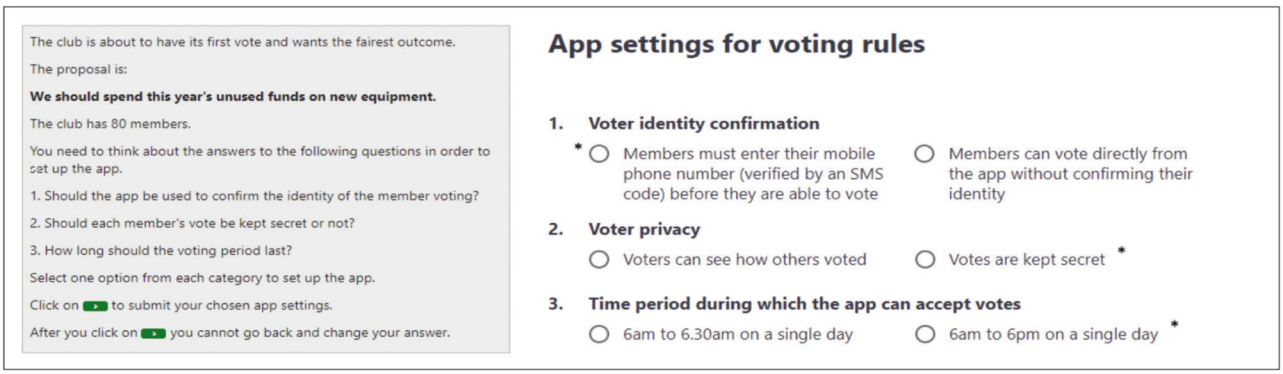


Fig. 3.6 Sample item 12 (Voting App module item 3)

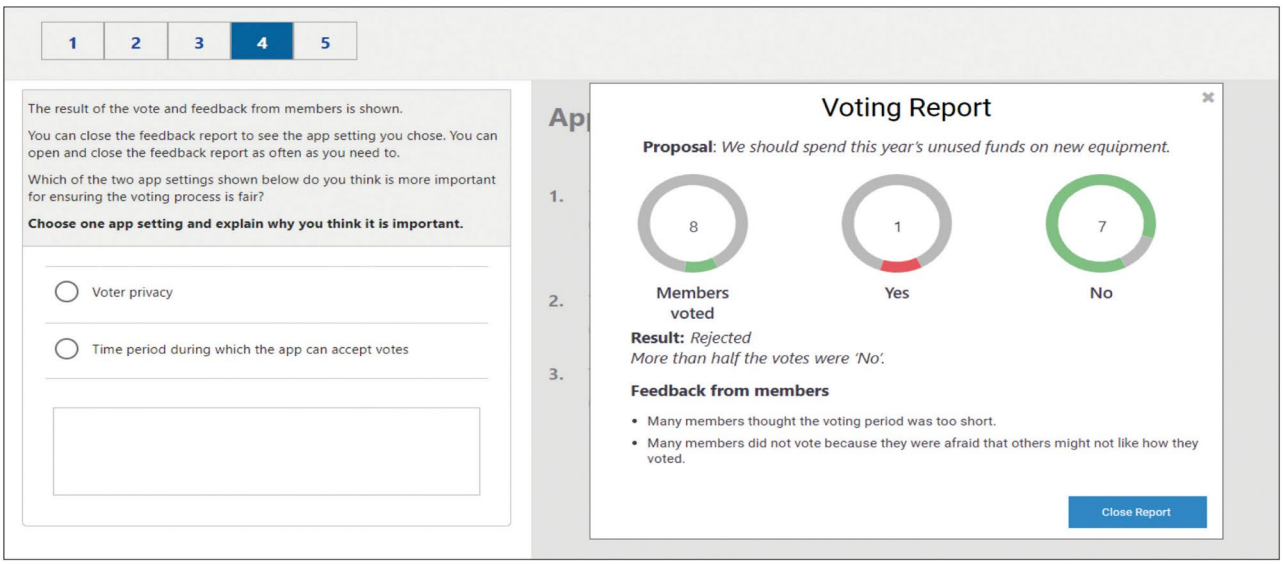


Fig. 3.7 Sample item 13 (Voting App module item 4)

Students who selected "time period during which the app can accept votes" received credit if their explanation referred to the impact of the time period on either likely voter participation (the shorter period being likely to result in fewer people voting), or on the degree of thought people might give to their vote (the shorter voting period potentially resulting in people giving less thought to their vote).

On average across the 18 CBA countries, 55% of students correctly responded to this item, with percentages ranging from 37% to 78%. This corresponded to achievement at Level B on the ICCS civic knowledge scale (Table 3.8).

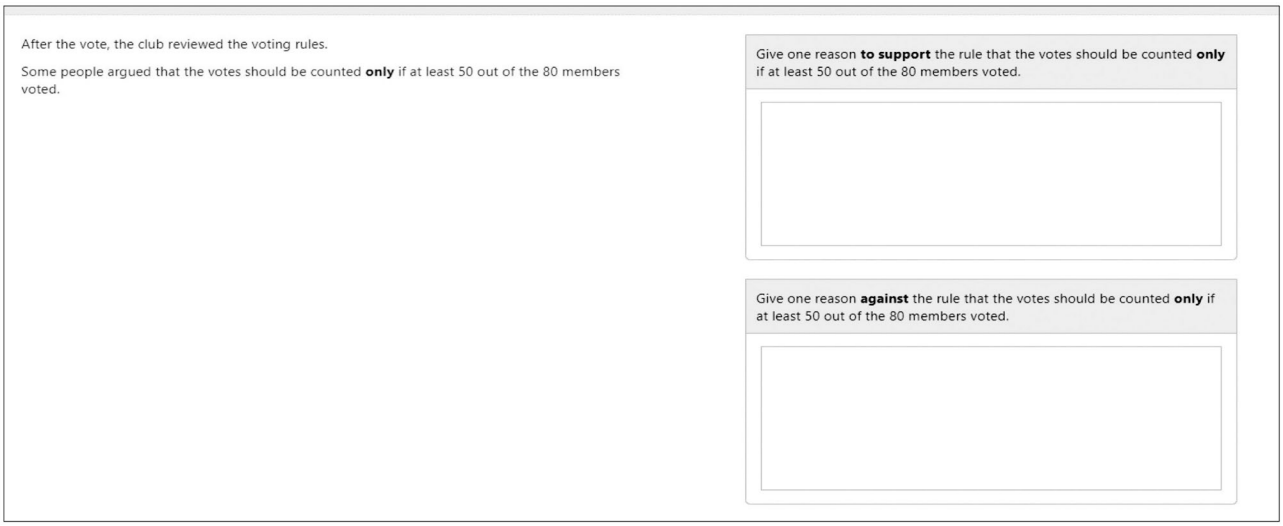


Fig. 3.8 Sample items 14 and 15 (Voting App module items 5 and 6)

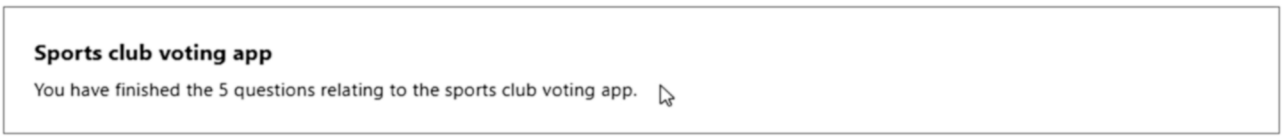


Fig. 3.9 Voting App module item conclusion screen

Sample items 14 and 15 (Fig. 3.8) required students to propose one reason to support and one reason against a suggestion that the votes should be counted (used as a proxy, simplified description of the outcomes of the vote being accepted/valid) if at least 50 of the 80 club members vote. The essential reasoning required by students in responding to these two items relates to concepts associated with representativeness in voting. The ICCS test instrument does not include items in which students are required to generate extended analyses or arguments on civic and citizenship education related topics. However, by presenting items in pairs requiring students to provide arguments on opposing sides of a given topic, ICCS can collect evidence of students' demonstration of some of the requisite skills associated with the development of reasoned argument.

In order to receive credit for sample item 14 (a maximum of one score point), students could provide reasons that reflected one of the following categories:

(i) Having the rule increases the likelihood that the vote is representative
(ii) Having the rule generates confidence in the voting process

On average across the 18 CBA countries, 41% of students correctly responded to this item, with percentages ranging from 22% to 80%. This corresponded to achievement at Level A on the ICCS civic knowledge scale (Table 3.8).

In order to receive credit for sample item 15 (a maximum of one score point), students could provide reasons that reflected one of the following categories:

(i) There is a risk of the vote not being representative of the membership
(ii) It might be too difficult in practice to collect votes from 50 people
(iii) People might feel undue/unfair pressure to vote

On average across the 18 CBA countries, 29% of students correctly responded to this item, with percentages ranging from 11% to 69%. This corresponded to achievement at Level A on the ICCS civic knowledge scale (Table 3.8).

After completing the five items in the Voting App module, students were presented with a screen informing them that the module was complete (Fig. 3.9).

3.5.6 Summary of Sample Items on ICCS Civic Knowledge Scale

If a student attains a measured proficiency within a given level on the ICCS civic knowledge scale, we can be confident that he or she would have correctly answered at least half of the items spanning the level.[7] As a consequence, we can assume that the description of achievement for any given level is broadly applicable to any student with a measured proficiency within the level, regardless of where the student's proficiency is located within that level.

The civic knowledge scale recognizes the relative difficulty of items and the content and cognitive processes they are intended to represent. Items assessing students' capacity to reason with and apply their knowledge are not necessarily more difficult than those that directly assess knowledge. Item difficulty results from a combination of two factors: (i) how familiar a student is with the concepts inherent in that item, and (ii) the type of cognitive processing that the student needs to engage in to correctly answer the item. Relatively simple processing of complex content can be similar to the proficiency needed for complex processing of familiar content (Fig. 3.10).

3.6 Comparison of Civic Knowledge Across Countries

3.6.1 Distribution of Civic Knowledge Scores Across Countries

The average score on the reporting scale developed at the time of ICCS 2009 was set to reflect an average of 500 and a standard deviation at 100 for all participating countries using equally weighted national samples.[8]

The average score on the equated scale for the ICCS 2022 countries was 508 scale points (readers should note the differences in the composition of the group of countries participating across both surveys), and the standard deviation was 101 scale points for all country data with equally weighted national samples.

In ICCS 2022 the average civic knowledge scale scores ranged from 452 to 583 scale points (approximately 1.3 international standard deviations) (Table 3.9). The distribution of scores varied across countries. The spread appeared to be unrelated to the average scale score across countries.

Sixteen participating entities recorded average scale scores statistically significantly different from the ICCS 2022 average of 508 scale points. Seven countries, as well as the German benchmarking participant North Rhine-Westphalia, had national averages that were significantly above the ICCS 2022 average, and eight that were significantly below the average. Five countries (Spain, Lithuania, the Netherlands, France, and Slovenia) had national averages that were not statistically significantly different from the ICCS 2022 international average. Pairwise comparisons of country achievement indicate significant differences in civic knowledge between the population estimates for individual countries (see Appendix A.5, Table A.6).

We observed considerable variation in students' civic knowledge scores within countries. Within every country, the range of civic knowledge scores covering the middle 90% of students was greater than 250 scale score points, more than the span of three levels on the ICCS civic knowledge scale. In contrast, the difference between the highest and lowest average civic knowledge across countries was 131 scale score points, less than the span of 1.5 levels on the civic knowledge scale. This shows that, while there are observable differences in civic knowledge across countries, the ranges of civic knowledge scores between the highest and lowest achieving students within countries are considerably larger.

The percentages of students at each proficiency level of the civic knowledge scale for each country are reported (Table 3.10), with countries presented in descending order according to the percentage of students with scores that positioned them at Proficiency Level A on the scale.

Across all participating countries, approximately 60% of students achieved scores that placed them within Levels A and B of the ICCS civic knowledge proficiency scale. A further 24% of students attained scores commensurate with Level C. In five countries, and in the German benchmarking participant, North Rhine-Westphalia, the highest percentages of students were in Level A, and in a further 11 countries the highest percentages were at Level B. In 15 countries, and the German benchmarking participant, North Rhine-Westphalia, more than 60% of students had scores at Levels A or B.

In four countries, the highest percentages of students performed at Level C. In five countries the majority of students were performing at Level C or below. Within all countries there were students performing at Level D or below, these are students demonstrating the most basic proficiency associated with concrete and explicit civic and citizenship concepts. The percentage of students performing at Level D or below varied from three to 31% across countries and was 10% or more in 15 countries.

[7] This is a result of a combination of the response probability of 0.62 established for reporting student achievement and the level width of 84 scale points.

[8] The ICCS civic knowledge scale was established using data from countries that met IEA sample participation requirements only.

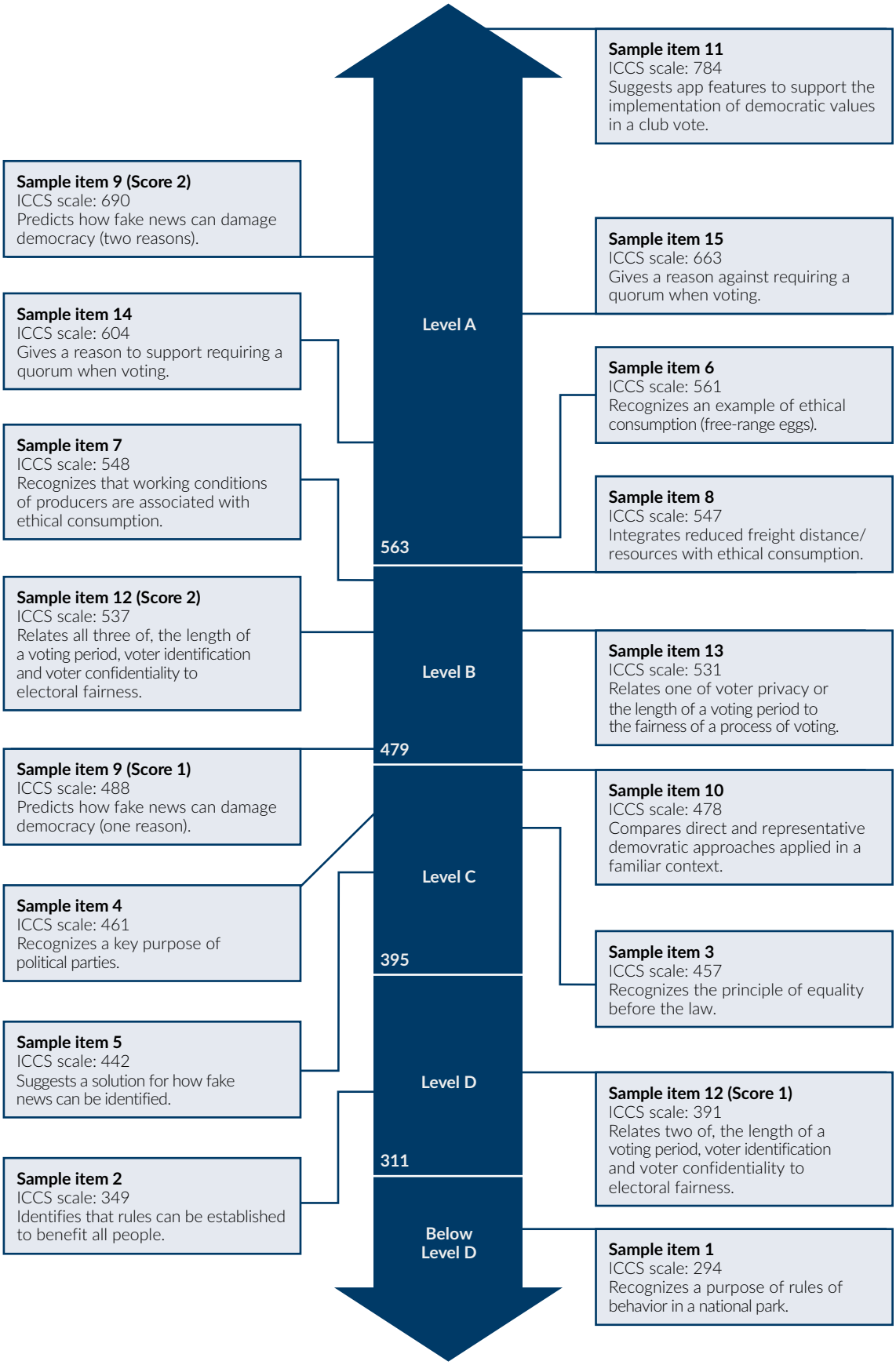
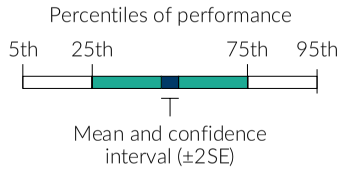


Fig. 3.10 Location of sample items on the civic knowledge scale

Table 3.9 Distributions of civic knowledge

Country	Grade	Average age	Civic knowledge scale scores 250 350 450 550 650 750	Average scale score	HDI
Chinese Taipei	8	14.2		583 (2.3) ▲	0.93
Sweden[1]	8	14.8		565 (3.5) ▲	0.95
Poland	8	14.4		554 (2.5) ▲	0.88
Estonia	8	15.0		545 (5.5) ▲	0.89
Croatia[1]	8	14.7		531 (2.6) ▲	0.86
Norway (9)[1]	9	14.9		529 (2.8) ▲	0.96
Italy	8	13.8		523 (3.6) ▲	0.90
Spain	8	14.0		510 (3.3)	0.91
Lithuania	8	14.8		509 (4.0)	0.88
Netherlands†	8	14.1		508 (4.1)	0.94
France	8	13.9		508 (3.3)	0.90
Slovenia	8	13.9		504 (2.3)	0.92
Slovak Republic	8	14.3		501 (3.3) ▼	0.85
Latvia[1]	8	14.8		490 (2.8) ▼	0.86
Malta	9	13.6		490 (7.4) ▼	0.92
Romania	8	15.0		470 (9.1) ▼	0.82
Serbia	8	14.6		464 (3.4) ▼	0.80
Cyprus	8	13.9		459 (2.5) ▼	0.90
Bulgaria	8	14.8		456 (4.6) ▼	0.80
Colombia	8	14.1		452 (3.8) ▼	0.75
ICCS 2022 average		**14.4**	Below D D C B A	**508 (0.9)**	
			Proficiency Level		
Countries not meeting sample participation requirements					
Brazil	8	14.1		457 (3.3)	0.75
Denmark	8	14.8		556 (3.5)	0.95
German benchmarking participant meeting sample participation requirements					
North Rhine-Westphalia	8	14.3		524 (2.6) ▲	0.94
German benchmarking participant not meeting sample participation requirements					
Schleswig-Holstein	8	14.5		544 (4.4)	0.92

Notes:
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
HDI = Human Development Index.



▲ Achievement significantly higher than international average

▼ Achievement significantly lower than international average

Table 3.10 Percentages of students at each proficiency level of civic knowledge

Country	Below Level D	Level D	Level C	Level B	Level A	
Chinese Taipei	0.3 (0.1)	2.8 (0.4)	9.3 (0.7)	25.5 (1.1)	62.1 (1.2)	
Sweden[1]	1.2 (0.3)	6.4 (0.7)	14.3 (0.8)	25.2 (0.9)	52.8 (1.4)	
Poland	0.5 (0.2)	4.3 (0.5)	15.4 (0.8)	32.2 (1.1)	47.6 (1.3)	
Estonia	0.8 (0.3)	5.5 (0.7)	18.9 (1.3)	31.5 (1.5)	43.4 (2.4)	
Norway (9)[1]	2.6 (0.4)	9.3 (0.7)	18.1 (0.8)	29.4 (0.8)	40.6 (1.2)	
Croatia[1]	^	5.0 (0.6)	20.9 (1.1)	37.6 (1.3)	36.1 (1.3)	
Italy	1.1 (0.3)	7.0 (0.8)	22.3 (1.6)	34.8 (1.4)	34.7 (2.0)	
Netherlands†	2.0 (0.4)	12.0 (1.2)	23.7 (1.3)	31.5 (1.6)	30.8 (1.8)	
Lithuania	1.8 (0.3)	10.6 (0.9)	24.9 (1.2)	32.5 (1.1)	30.1 (1.8)	
France	1.6 (0.3)	9.9 (0.8)	25.5 (0.9)	33.9 (0.9)	29.0 (1.2)	
Spain	1.5 (0.3)	9.6 (0.9)	24.1 (1.2)	36.1 (1.1)	28.8 (1.3)	
Slovak Republic	2.9 (0.6)	11.4 (1.1)	25.2 (1.1)	32.5 (1.2)	28.0 (1.3)	
Malta	4.4 (1.4)	15.2 (1.6)	25.1 (1.3)	29.3 (1.7)	25.9 (2.1)	
Slovenia	1.2 (0.2)	9.5 (0.6)	27.8 (1.0)	36.1 (1.2)	25.4 (1.2)	
Latvia[1]	1.8 (0.3)	11.8 (0.9)	30.8 (1.2)	35.6 (1.5)	20.0 (1.1)	
Romania	5.5 (1.1)	18.8 (2.1)	26.8 (2.1)	30.6 (2.5)	18.3 (3.1)	
Bulgaria	7.9 (1.0)	22.7 (1.6)	27.5 (1.4)	24.7 (1.4)	17.3 (1.3)	
Cyprus	5.8 (0.6)	21.9 (0.9)	31.0 (1.2)	25.9 (1.0)	15.4 (0.8)	
Serbia	4.2 (0.6)	19.4 (1.8)	32.7 (1.7)	29.6 (1.2)	14.0 (1.1)	
Colombia	5.2 (0.6)	23.6 (1.5)	32.4 (1.4)	26.7 (1.4)	12.2 (1.1)	
ICCS 2022 average	**2.6 (0.1)**	**11.8 (0.2)**	**23.8 (0.3)**	**31.1 (0.3)**	**30.6 (0.4)**	
Countries not meeting sample participation requirements						
Brazil	6.8 (0.6)	22.7 (0.9)	30.7 (1.0)	24.2 (1.0)	15.7 (1.1)	
Denmark	1.3 (0.3)	6.1 (0.6)	15.3 (0.9)	27.3 (1.1)	49.9 (1.5)	
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	1.5 (0.2)	9.0 (0.7)	22.8 (1.1)	30.5 (1.2)	36.3 (1.1)	
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	1.1 (0.4)	7.8 (1.2)	17.9 (1.6)	27.9 (1.6)	45.2 (1.9)	

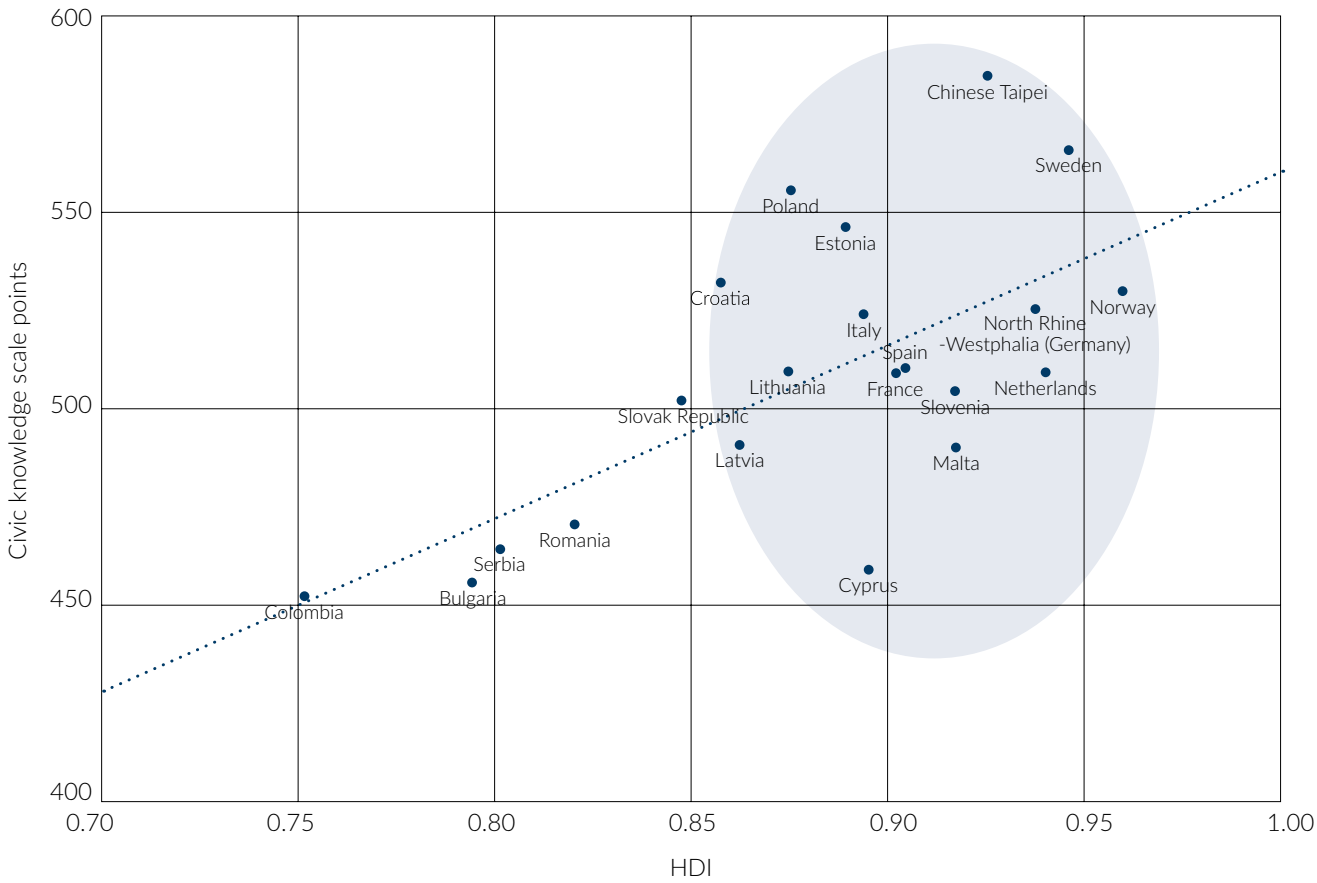
Notes:
We have presented the countries in descending order according to the percentage of students with scores that positioned them at Proficiency Level A on the scale.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
^ Number of students too small to report percentages at the level.

3.6.2 Variations Across Countries with Respect to Associations Between Civic Knowledge, Human Development Index, and Student Age

The Human Development Index (HDI) 2021 value quoted for each ICCS 2016 country, provided by the United Nations Development Programme (UNDP), is a "summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and having a decent standard of living" (UNDP, 2022).

At the student level within countries, socioeconomic status has been a significant predictor of civic knowledge in the previous ICCS cycles (Schulz et al., 2010, 2018). The HDI can be used as a point of reference for considering how civic knowledge scores vary across countries with respect to their educational and economic development. The HDI ranges from 0 to 1 and has four categories: very high (HDI greater than 0.9), high (HDI between 0.8 and 0.9), medium (HDI between 0.5 and 0.8), and low (HDI less than 0.5). The HDI also provides a means of classifying a country as developed (very high HDI) or developing (all other HDI categories).

Figure 3.11 shows the average civic knowledge scores of ICCS countries plotted against their HDI9. The dashed diagonal regression line shows a linear estimate of the relationship between civic knowledge and HDI across all countries. Countries shown well above the dashed line have relatively higher average civic knowledge than predicted from their HDI when compared to other ICCS countries. Countries shown well below the dashed line have relatively lower average civic knowledge than predicted from their HDI when compared to other ICCS countries.



Notes:
The light blue oval shows the group of countries with HDI above 0.85 (the midpoint of the high HDI category).
Source: The HDI for Chinese Taipei is a 2022 estimate created by the Directorate General of Budget, Accounting and Statistics (Chinese Taipei): https://eng.stat.gov.tw/public/Data/1513164433IGBKG0IN.pdf; the HDI for North Rhine Westphalia is a 2021 subnational estimate provided by the Global Data Lab: https://globaldatalab.org/shdi/table/shdi/DEU/?levels=1+4&interpolation=0&extrapolation=0

Fig. 3.11 Scatterplot of average civic knowledge scale scores and Human Development Index (HDI) scores

While moderate associations between HDI and average civic knowledge scale scores emerged across the ICCS 2022 countries ($r = 0.65$,[9] $p = 0.57$[10]), this association is largely a result of the differences in achievement between countries with relatively low HDI in comparison to the larger group of countries with relatively high HDI (Fig. 3.11). In contrast to the moderate association between HDI and student civic knowledge across all countries, the association is low when considering only those countries with HDI greater than 0.85 ($r = 0.21$,[11] $p = 0.14$[12]). Of the eight countries with average civic knowledge scale scores statistically significantly above the ICCS 2022 international average of 508 scale points, four had very high HDI and four had high HDI. In contrast, of the eight participating entities with average civic knowledge scores statistically significantly below 509 scale points, one had very high HDI, five had high HDI, and one had medium HDI. No countries with low HDI participated in ICCS 2022. The data provide some evidence of an HDI "threshold" below which civic knowledge does appear to be associated with the level of educational and economic development within a country but, once exceeded, the association between HDI and student civic knowledge is weaker and may be more strongly influenced by other factors associated with civic and citizenship education within those countries.

3.7 Changes in Civic Knowledge Since 2009

The ICCS 2022 test included 55 items from ICCS 2016 (26 used in both ICCS 2009 and 2016, and 29 first used in ICCS 2016). This inclusion meant that we could report student civic knowledge scores for the current ICCS cycle on the scale established in 2009, and compare changes in civic knowledge across the three cycles of ICCS. In this section we focus on changes between 2022 and each of the two previous ICCS cycles. Comparable data are reported for 13 countries that participated in ICCS 2016 as well as ICCS 2022, and for 15 countries that participated in ICCS 2009 as well as ICCS 2022. The ICCS 2016 international report contains a detailed discussion of changes in civic knowledge for countries that participated in both ICCS 2009 and ICCS 2016 (see Schulz et al., 2018).

In ICCS 2016, it was reported that "most countries recorded an increase of civic knowledge between 2009 and 2016" (Schulz et al., 2018, p. 61). This can also be seen in the subset of 11 countries that have comparable data across all three cycles of ICCS. Average civic knowledge increased significantly in eight of these 11 countries between 2009 and 2016. In five countries (Sweden, Norway, Slovenia, Bulgaria, and Colombia), the significant increases in civic knowledge between 2009 and 2016 were followed by significant decreases between 2016 and 2022. In Chinese Taipei, Estonia, and Lithuania, civic knowledge increased significantly between 2009 and 2016 and then did not change significantly between 2016 and 2022.

Two countries, the Netherlands and Croatia, participated with comparable data in ICCS 2016 and 2022 in addition to the 11 countries that participated in all three cycles. Average civic knowledge decreased significantly in the Netherlands between 2016 and 2022, and there was no significant change in civic knowledge in Croatia. In total, civic knowledge decreased significantly in six of the 13 countries that participated in ICCS 2016 and 2022. In the remaining seven countries, civic knowledge did not change significantly which also means that there was no country in ICCS in which the average civic knowledge scale score increased significantly between 2016 and 2022. Differences in average civic knowledge scale scores between 2016 and 2022 varied from a statistically significant decrease of 35 scale points in Norway to a non-statistically significant increase of two scale points in Chinese Taipei. On average across all 13 countries, civic knowledge decreased significantly by 11 scale points between 2016 and 2022 (Table 3.11).

The decrease in achievement across countries between 2016 and 2022 marks a clear contrast to the tendency for achievement to have increased between 2009 and 2016. The ICCS data are consistent with data reported in in the 2022 US National Assessment of Educational Progress (NAEP) Civics assessments, which found declines in civics scores between 2016 and 2022 for the first time since data were first collected in 1998 (U.S. Department of Education, 2022).

The IEA Progress in Reading Literacy Study (PIRLS) is an international large-scale assessment that, like ICCS and NAEP Civics, collected data with assessment cycles spanning the time when the COVID-19 pandemic created the greatest disruption to traditional schooling. In PIRLS, a decrease in reading achievement was reported across countries with comparable data between 2016 and 2021, with decreases in achievement reported in 21 of the 32 countries (including one benchmarking

[9] Pearson correlation coefficient between average country civic knowledge scale scores and HDI for all countries.

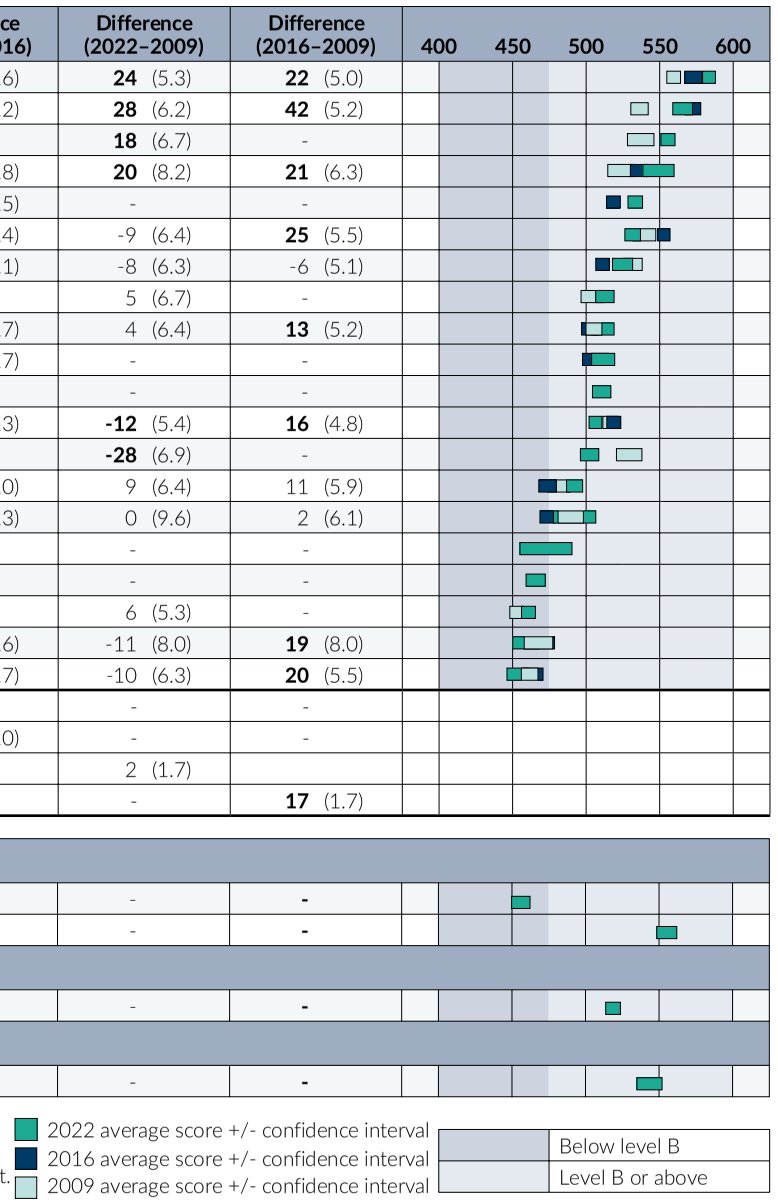
[10] Spearman's rank correlation between the ranks of average country civic knowledge scale scores and ranks of country HDI for all countries.

[11] Pearson correlation coefficient between average country civic knowledge scale scores and HDI for countries with HDI greater than 0.85.

[12] Spearman's rank correlation between the ranks of average country civic knowledge scale scores and ranks of country HDI for countries with HDI greater than 0.85.

Table 3.11 Changes in average civic knowledge across ICCS cycles

Country	2022	2016	2009	Difference (2022–2016)	Difference (2022–2009)	Difference (2016–2009)
Chinese Taipei	583 (2.3) ▲	581 (3.0)	559 (2.4)	2 (4.6)	**24** (5.3)	**22** (5.0)
Sweden[1]	565 (3.5) ▲	579 (2.8)	537 (3.1)	**-15** (5.2)	**28** (6.2)	**42** (5.2)
Poland	554 (2.5) ▲	-	536 (4.7)	-	**18** (6.7)	-
Estonia	545 (5.5) ▲	546 (3.1)	525 (4.5)	-1 (6.8)	**20** (8.2)	**21** (6.3)
Croatia[1]	531 (2.6) ▲	531 (2.5)	-	0 (4.5)	-	-
Norway (9)[1]	529 (2.8) ▲	564 (2.2)	538 (4.0)	**-35** (4.4)	-9 (6.4)	**25** (5.5)
Italy	523 (3.6) ▲	524 (2.4)	531 (3.3)	-1 (5.1)	-8 (6.3)	-6 (5.1)
Spain	510 (3.3)	-	505 (4.1)	-	5 (6.7)	-
Lithuania	509 (4.0)	518 (3.0)	505 (2.8)	-9 (5.7)	4 (6.4)	**13** (5.2)
Netherlands†	508 (4.1)	523 (4.5)	-	**-15** (6.7)	-	-
France	508 (3.3)	-	-	-	-	-
Slovenia	504 (2.3) ▼	532 (2.5)	516 (2.7)	**-28** (4.3)	**-12** (5.4)	**16** (4.8)
Slovak Republic	501 (3.3) ▼	-	529 (4.5)	-	**-28** (6.9)	-
Latvia[1]	490 (2.8) ▼	492 (3.1)	482 (4.0)	-2 (5.0)	9 (6.4)	11 (5.9)
Malta	490 (7.4) ▼	491 (2.7)	490 (4.5)	-2 (8.3)	0 (9.6)	2 (6.1)
Romania	470 (9.1) ▼	-	-	-	-	-
Serbia	464 (3.4) ▼	-	-	-	-	-
Cyprus	459 (2.5) ▼	-	453 (2.4)	-	6 (5.3)	-
Bulgaria	456 (4.6) ▼	485 (5.3)	466 (5.0)	**-29** (7.6)	-11 (8.0)	**19** (8.0)
Colombia	452 (3.8) ▼	482 (3.4)	462 (2.9)	**-30** (5.7)	-10 (6.3)	**20** (5.5)
ICCS 2022 average	508 (0.9)	-	-	-	-	-
ICCS 2022/2016 average	514 (1.1)	527 (0.9)	-	**-13** (3.0)	-	-
ICCS 2022/2009 average	511 (1.0)	-	509 (1.0)	-	2 (1.7)	
ICCS 2016/2009 average		527 (1.0)	510 (1.1)	-	-	**17** (1.7)
Countries not meeting sample participation requirements						
Brazil	457 (3.3)	-	-	-	-	**-**
Denmark	556 (3.5)	-	-	-	-	**-**
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	524 (2.6) ▲	-	-	-	-	**-**
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	544 (4.4)	-	-	-	-	**-**



Notes:
Statistically significant differences ($p < 0.05$) between ICCS cycles are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ Significantly above ICCS 2022 average
▼ Significantly below ICCS 2022 average

entity) and increases reported in only three countries (Mullis et al., 2023). While PIRLS assessed reading in Grade 4 students, rather than civics in Grade 8 students, together with the findings reported in ICCS and NAEP, these studies contribute to a general picture of learning loss that has taken place across many countries and across learning areas during the time of the COVID-19 pandemic (see, for example, König & Frey, 2022; Moscoviz & Evans, 2022).

We compared the changes in civic knowledge across the three cycles of ICCS, reflected in the percentages of students with achievement on the ICCS civic knowledge scale within the upper levels (Level B and above shown in Table 3.12) and lower levels (Level D and below shown in Table 3.13).

The key differences between achievement below Level B in comparison to Level B and above on the civic knowledge scale are the specificity of students' knowledge and their understanding of the interconnectedness of civic and civil institutions, as well as the connections between policies, practices, and intended outcomes. This distinction needs to be kept in mind when considering the results showing the changes in the proportions of students at Level B and above on the ICCS civic knowledge proficiency scale between since 2009 (as shown in Table 3.12).

The tendency for average civic knowledge scores to have increased between 2009 and 2016 and then to have decreased between 2016 and 2022 is reflected in the percentages of students at Level B or above (Table 3.12).

When comparing data from ICCS 2009 with 2022, there was a significant increase in the percentage of students at Level B or above in three countries (Chinese Taipei, Sweden, and Poland), and a significant decrease in two countries (the Slovak Republic and Slovenia). However, on average across countries that participated in each of ICCS 2009 and ICCS 2022, there was no significant difference in the percentage of students achieving at Level B or above 2009 and 2022.

This is in contrast with the decreases in the percentages of students with knowledge at Level B or above between 2016 and 2022. Of the 13 countries that participated in both cycles, no country recorded a significant increase in the percentage of students at Level B or above and significant decreases were recorded in seven countries. The changes in percentages of students at Level B or above varied from a non-significant increase of 1% in Chinese Taipei, to a significant decrease of 14% in Colombia.

Students achieving at Level D or below are demonstrating, at most, engagement with concrete and explicit civic and citizenship content and concepts. When comparing data from ICCS 2009 with 2022, there were only small differences in the percentages at Level D or below across countries. Significant increases were reported in Colombia (eight percentage points) and Lithuania (four percentage points), and significant decreases were reported in Poland (four percentage points) and Chinese Taipei (two percentage points). On average across all countries that participated in both ICCS 2009 and 2022 the proportion of students in Level D or below changed from 13% to 14%, which is a small but statistically significant change (Table 3.13).

In contrast, between 2016 and 2022 the percentages of students achieving at Level D and below increased significantly in seven countries that participated in both cycles (Table 3.13). On average, across these countries, the percentage of students achieving at Level D or below increased from 9% in 2016 to 13% in 2022. The significant increases varied from three percentage points in Sweden and Estonia to 13 percentage points in Colombia.

When generalizing across countries, the pattern of increase in student civic knowledge between 2009 and 2016 and subsequent decrease between 2016 and 2022 has resulted in students' civic knowledge achievement in 2022 being similar to that of 2009. In effect, the gains achieved between the first two ICCS cycles have been undone between the next two cycles. This decrease has taken place during the period of greatest disruption to schooling associated with the COVID-19 pandemic, however, it is not possible to determine the nature or magnitude of association between these two phenomena. Regardless, the decreases in student civic knowledge between 2016 and 2022 across countries that participated in both cycles of ICCS are cause for concern, in particular when considering the increase in the proportion of students achieving at Level D or below, where students are only able to engage with the most basic, concrete, and explicit civic and citizenship concepts.

3.8 Variations in Civic Knowledge Across Countries with Respect to Student Background Characteristics

In this section we address Research Question 2 (a): *Are variations in civic knowledge associated with student characteristics and background variables?* Our focus at this point is therefore on the associations between students' civic knowledge and student gender, student age within countries, variables associated with students' socioeconomic status, whether or not students had an immigrant background, and the language students spoke at home. Chapter 7 documents further investigation, based on regression modeling, of the relationships between student civic knowledge and student-level and school-level factors.

Table 3.12 Changes in percentages of students at or above proficiency Level B across ICCS cycles

Country	2022 (Level B and above)	2016 (Level B and above)	2009 (Level B and above)	Difference (2022–2016)	Difference (2022–2009)
Chinese Taipei	88 (0.7)	87 (1.0)	80 (1.0)	1 (1.3)	**8** (1.5)
Poland	80 (1.0)	-	72 (1.7)	-	**8** (2.3)
Sweden[1]	78 (1.0)	83 (1.0)	72 (1.2)	**-5** (1.6)	**6** (1.9)
Estonia	75 (1.7)	80 (1.2)	70 (1.8)	**-5** (2.3)	5 (2.8)
Croatia[1]	74 (1.4)	76 (1.4)	-	-2 (2.2)	-
Norway (9)[1]	70 (1.1)	82 (0.8)	72 (1.6)	**-12** (1.6)	-2 (2.2)
Italy	70 (1.6)	71 (1.2)	73 (1.4)	-1 (2.1)	-3 (2.6)
Spain	65 (1.6)	-	63 (2.0)	-	2 (2.9)
France	63 (1.4)	-	-	-	-
Lithuania	63 (1.6)	69 (1.5)	63 (1.5)	**-6** (2.5)	-1 (2.7)
Netherlands†	62 (2.0)	68 (2.3)	-	-5 (3.1)	-
Slovenia	61 (1.2)	75 (1.1)	66 (1.4)	**-13** (1.9)	**-5** (2.4)
Slovak Republic	61 (1.5)	-	71 (1.7)	-	**-10** (2.7)
Latvia[1]	56 (1.6)	58 (1.7)	52 (2.1)	-3 (2.7)	4 (3.3)
Malta	55 (2.9)	58 (1.3)	57 (2.0)	-3 (3.4)	-1 (3.8)
Romania	49 (4.3)	-	-	-	-
Serbia	44 (1.7)	-	-	-	-
Bulgaria	42 (2.1)	55 (2.1)	47 (2.3)	**-13** (3.0)	-5 (3.3)
Cyprus	41 (1.3)	-	40 (1.2)		1 (2.1)
Colombia	39 (1.9)	53 (1.8)	43 (1.5)	**-14** (2.8)	-4 (3.0)
ICCS 2022 average	62 (0.4)	-	-	-	-
ICCS 2016/2022 averages	64 (0.5)	70 (0.4)	-	**-6** (0.7)	-
ICCS 2022/2009 averages	63 (0.4)	-	63 (0.4)	-	0 (0.7)
Countries not meeting sample participation requirements					
Brazil	40 (1.4)	-	-	-	-
Denmark	77 (1.3)	-	-	-	-
German benchmarking participant meeting sample participation requirements					
North Rhine-Westphalia	67 (1.3)	-	-	-	-
German benchmarking participant not meeting sample participation requirements					
Schleswig-Holstein	73 (1.9)	-	-	-	-

Notes:
Statistically significant changes ($p < 0.05$) between 2022 and 2016, and between 2022 and 2009 are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

Table 3.13 Changes in percentages of students at or below proficiency Level D across ICCS cycles

Country	2022 (Level D and below)	2016 (Level D and below)	2009 (Level D and below)	Difference (2022–2016)	Difference (2022–2009)
Chinese Taipei	3 (0.5)	3 (0.5)	5 (0.4)	0 (0.7)	**-2** (0.7)
Poland	5 (0.5)	-	9 (1.0)	-	**-4** (1.3)
Croatia[1]	5 (0.7)	4 (0.5)	-	1 (0.9)	-
Estonia	6 (0.9)	3 (0.5)	8 (1.1)	**3** (1.1)	-2 (1.5)
Sweden[1]	8 (0.8)	4 (0.6)	8 (0.8)	**3** (1.0)	0 (1.2)
Italy	8 (0.8)	7 (0.7)	7 (0.7)	1 (1.2)	1 (1.3)
Slovenia	11 (0.6)	5 (0.5)	9 (0.9)	**6** (1.0)	2 (1.3)
Spain	11 (1.0)	-	11 (1.3)	-	0 (1.8)
France	12 (0.9)	-	-	-	-
Norway (9)[1]	12 (0.8)	5 (0.4)	10 (0.4)	**7** (1.0)	2 (1.0)
Lithuania	12 (0.9)	7 (0.9)	9 (0.8)	**5** (1.4)	**4** (1.5)
Latvia[1]	14 (1.0)	12 (1.2)	15 (1.6)	1 (1.7)	-1 (2.1)
Netherlands†	14 (1.3)	9 (1.5)	-	**5** (2.1)	-
Slovak Republic	14 (1.2)	-	7 (0.9)	-	**7** (1.8)
Malta	20 (2.7)	19 (1.0)	17 (1.6)	1 (2.9)	2 (3.2)
Serbia	24 (1.8)	-	-	-	-
Romania	24 (2.8)	-	-	-	-
Cyprus	28 (1.1)	-	28 (1.0)	-	0 (1.8)
Colombia	29 (1.8)	16 (1.2)	21 (1.3)	**13** (2.5)	**8** (2.7)
Bulgaria	31 (2.1)	22 (2.1)	27 (1.8)	**8** (3.1)	4 (2.9)
ICCS 2022 average	14 (0.3)				
ICCS 2016/2022 averages	13 (0.4)	9 (0.3)		**4** (0.5)	
ICCS 2022/2009 averages	14 (0.3)		13 (0.3)		**1** (0.5)
Countries not meeting sample participation requirements					
Brazil	29 (1.2)	-	-	-	-
Denmark	7 (0.8)	-	-	-	-
German benchmarking participant meeting sample participation requirements					
North Rhine-Westphalia	10 (0.7)	-	-	-	-
German benchmarking participant not meeting sample participation requirements					
Schleswig-Holstein	9 (1.3)	-	-	-	-

Notes:
Statistically significant changes ($p < 0.05$) between 2022 and 2016, and between 2022 and 2009 are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

3.8.1 Gender Differences in Civic Knowledge

A significant gender difference in civic knowledge was apparent for only one of the 28 countries that took part in the IEA CIVED study (Torney-Purta et al., 2001). In contrast, in ICCS 2009 and 2016, the average ICCS civic knowledge scores of female students were higher than those of male students both overall and in nearly all countries (Schulz et al., 2010, 2018).

In 2022, the average civic knowledge scores of female students were statistically significantly higher than those of male students in 18 of 20 countries as well as on average across countries (Table 3.14). The gender difference was not statistically significant in the Netherlands, Colombia and the German benchmarking participant, North Rhine-Westphalia. The magnitude of the significant differences in the achievement of female students relative to male students ranged from a (not statistically significant) difference of two scale points in the German benchmarking participant, North Rhine-Westphalia, to 41 scale points in Bulgaria.

Across the three cycles of ICCS, the achievement of female students has been consistently higher than that of male students, with no clear pattern of change in these differences across the three cycles (Table 3.15). Across the 13 countries that participated in both ICCS 2022 and 2016 the average achievement of female students was 27 scale points higher than that of male students in ICCS 2022, and 29 scale points higher than that of male students in ICCS 2016.

Across the 15 countries that participated in both ICCS 2022 and ICCS 2009 the average achievement of female students was 27 scale points higher than that of male students in ICCS 2022, and 26 scale points higher than that of male students in ICCS 2009. The differences between the estimated achievement differences across female students and male students, when comparing 2022 results with those from 2016 and 2009, were not statistically significantly different in all but two comparisons; in Sweden the gender difference was significantly larger in 2022 than in 2009 (+16 score points), and in Chinese Taipei it was significantly smaller in 2022 compared to 2016 (-14 score points). Overall, the average differences between the achievement of female and male students have changed very little across comparable countries between 2009 and 2022 and between 2016 and 2022.

3.8.2 Student Age and Civic Knowledge Within Countries

In order to investigate the relationship between student age and civic knowledge in the ICCS 2022 countries, we conducted a regression analysis using the ICCS scale score as the outcome variable and student age as a predictor (see Table A.4 in Appendix A.2 for the results of the regression analyses). The pattern of associations between student age within grade and achievement within countries in 2022 was very similar to that reported in previous cycles of ICCS (see, Schulz et al., 2010, 2018). Fifteen countries and the German benchmarking participant, North Rhine-Westphalia, recorded statistically significantly negative associations, and two countries (Serbia and Malta) recorded significantly positive associations between age and civic knowledge. The association between age and civic knowledge in the remaining country was not significant. Across the combined international sample, the association between student age and civic knowledge within countries was negative and statistically significant.

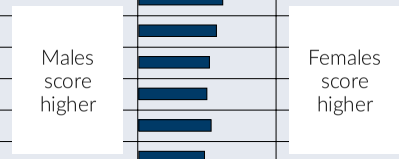
The high proportion of countries with negative associations between age and achievement is a typical outcome of studies that use grade-based samples of students. In some countries, students regarded as having higher academic potential begin school at a younger age and move more quickly through the years of schooling than other students. They therefore make up a higher proportion of younger students in a given grade level. Variations in retention and progression policies across countries also tend to influence within-country associations between age and achievement. Table A.4 in Appendix A.2 shows the differences in ICCS scale scores across those countries with students in the same grade but whose age range spanned one year. This difference was quite large in France, the Netherlands, the Slovak Republic, Spain and the German benchmarking participant, North Rhine-Westphalia. In these participating entities, younger students within the same grade achieved at least 30 scale points more than students one year older in the same grade—a difference equivalent to more than one third of the width of a proficiency level.

3.8.3 Associations Between Civic Knowledge and Socioeconomic Background Characteristics

In both previous cycles of ICCS, socioeconomic background was the student background variable with the most consistent and strongest associations with student civic knowledge. However, the strength of the association between socioeconomic background and civic achievement varied greatly across countries (see Schulz et al., 2010, 2018).

Table 3.14 Gender differences in civic knowledge

Country	Mean scale score females	Mean scale score males	Gender difference (female–male)	Gender difference (female–male) -50 0 50 100
Bulgaria	477 (5.3)	436 (5.9)	**41** (6.5)	
Sweden[1]	583 (4.5)	546 (4.0)	**37** (4.8)	
Lithuania	527 (4.3)	491 (4.5)	**35** (4.1)	
Norway (9)[1]	550 (3.0)	514 (3.4)	**36** (3.3)	
Romania	487 (8.7)	454 (10.0)	**33** (4.9)	
Cyprus	476 (3.4)	443 (3.2)	**33** (4.3)	
Latvia[1]	507 (3.2)	474 (3.4)	**33** (3.4)	
Croatia[1]	547 (3.2)	515 (3.8)	**31** (4.7)	
Slovenia	519 (2.8)	490 (3.1)	**29** (3.7)	
Malta	503 (8.5)	476 (8.7)	**26** (8.7)	
Serbia	476 (3.5)	451 (4.4)	**25** (4.1)	
Italy	537 (4.5)	510 (3.7)	**27** (3.9)	
Poland	566 (2.7)	542 (3.4)	**24** (3.5)	
Estonia	558 (5.6)	533 (6.2)	**24** (4.9)	
Slovak Republic	511 (3.6)	492 (4.0)	**19** (3.9)	
Chinese Taipei	594 (2.5)	574 (3.3)	**20** (3.8)	
Spain	519 (3.6)	502 (4.0)	**17** (3.9)	
France	515 (3.6)	502 (4.2)	**13** (4.2)	
Netherlands†	514 (5.8)	504 (4.7)	10 (6.5)	
Colombia	456 (4.9)	449 (4.3)	6 (5.2)	
ICCS 2022 average	521 (1.0)	495 (1.1)	**26** (1.1)	
Countries not meeting sample participation requirements				
Brazil	467 (3.4)	446 (4.0)	**22** (3.5)	
Denmark	575 (4.1)	543 (4.2)	**33** (4.9)	
German benchmarking participant meeting sample participation requirements				
North Rhine-Westphalia	525 (3.7)	524 (3.0)	2 (4.1)	
German benchmarking participant not meeting sample participation requirements				
Schleswig-Holstein	547 (5.7)	541 (5.8)	6 (7.7)	



Notes:
Statistically significant differences ($p < 0.05$) are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Gender difference statistically significant at p < 0.05
Gender difference not statistically significant at p < 0.05

Table 3.15 Gender differences in civic knowledge across cycles

Country	2022 (female–male)	2016 (female–male)	2009 (female–male)	Difference (2022–2016)	Difference (2022–2009)
Bulgaria	**41** (6.5) △	**37** (5.6)	**26** (5.3)	4 (8.6)	15 (8.4)
Sweden[1]	**37** (4.8) △	**36** (4.3)	**21** (4.5)	1 (6.4)	**16** (6.6)
Lithuania	**35** (4.1) △	**28** (3.7)	**35** (3.0)	7 (5.5)	1 (5.1)
Norway (9)[1]	**36** (3.3) △	**34** (2.4)	**25** (4.4)	2 (4.1)	**11** (5.5)
Romania	**33** (4.9)	-	-	-	-
Cyprus	**33** (4.3)	-	**40** (3.7)	-	-7 (5.7)
Latvia[1]	**33** (3.4) △	**30** (4.2)	**30** (3.7)	3 (5.4)	3 (5.0)
Croatia[1]	**31** (4.7)	**26** (3.2)	-	5 (5.7)	-
Slovenia	**29** (3.7)	**35** (3.4)	**30** (4.0)	-6 (5.0)	-1 (5.5)
Malta	**26** (8.7)	**38** (5.4)	**34** (8.2)	-12 (10.2)	-7 (12.0)
Serbia	**25** (4.1)	-	-	-	-
Italy	**27** (3.9)	**20** (3.6)	**18** (3.3)	7 (5.3)	9 (5.1)
Poland	**24** (3.5)	-	**33** (4.3)	-	-8 (5.6)
Estonia	**24** (4.9)	**33** (3.6)	**33** (3.9)	-9 (6.1)	-9 (6.2)
Slovak Republic	**19** (3.9)	-	**18** (4.2)	-	2 (5.8)
Chinese Taipei	**20** (3.8)	**34** (3.4)	**26** (2.5)	**-14** (5.1)	-6 (4.5)
Spain	**17** (3.9) ▽	-	**19** (3.6)	-	-2 (5.4)
France	**13** (4.2) ▽	-	-	-	-
Netherlands†	10 (6.5) ▽	**13** (4.0)	-	-4 (7.6)	-
Colombia	6 (5.2) ▽	**9** (3.9)	3 (4.1)	-2 (6.5)	(3.6) (6.6)
ICCS 2022 average	**26** (1.1)	-	-	-	-
ICCS 2016/2022 averages	**27** (1.4)	**29** (1.1)	-	-1 (1.8)	-
ICCS 2022/2009 averages	**27** (1.2)	-	**26** (1.1)	-	1 (1.7)
Countries not meeting sample participation requirements					
Brazil	22 (3.5)	-	-	-	-
Denmark	33 (4.9)	-	-	-	-
German benchmarking participant meeting sample participation requirements					
North Rhine-Westphalia	2 (4.1) ▽	-	-	-	-
German benchmarking participant not meeting sample participation requirements					
Schleswig-Holstein	6 (7.7)	-	-	-	-

Notes:
Statistically significant differences ($p < 0.05$) are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average

To measure and report on socioeconomic background during ICCS 2022, we used responses from the student questionnaire. These related to parental occupational status, parental education, and the number of books in the home, and were the same three socioeconomic background variables used in ICCS 2009 and 2016.

We coded parental occupations (as reported by students in response to constructed-response questions) according to the ISCO-08 classification (International Labour Organization, 2012). We then transformed this classification into a score on the International Socio-economic Index (SEI) of occupational status (Ganzeboom et al., 1992). If students provided data for two parents, we used the highest SEI score as an indicator of parental occupational status. The SEI scale is continuous and ranges from 16 to 90. In order to establish comparable descriptions of the associations between each of the three socioeconomic variables and student civic knowledge, we established two categories for each variable based on both the substantive meaning of the categories and the proportion of students within each category.

When summarizing the relationship between parental occupation and student civic knowledge, we divided the SEI scale into two categories based on international cut-off points indicating "low–medium occupational status" (below 50 SEI scale points) and "medium–high occupational status" (50 SEI scale points and above). On average across ICCS countries, 7% of students could not be assigned SEI scores because they had not answered the question. Among students with valid data, there were 52% in the low–medium category and 48% in the medium–high category.

To measure the educational attainment of each parent (based on the student responses), we used predefined categories denoting educational levels in each country. These categories were constructed with reference to the International Standard Classification of Education (ISCED) and consisted of "ISCED 6, 7, or 8," "ISCED 4 or 5," "ISCED 3," "ISCED 2," and "did not complete ISCED 2" (OECD [Organisation for Economic Co-operation and Development], 1999; UNESCO [United Nations Educational, Scientific and Cultural Organization], 2006). When students provided data for both their parents, we used the highest ISCED level as the indicator of parental educational attainment, and when summarizing the association between the highest level of parental education and student civic knowledge, we used two categories of parental education: "Below ISCED 6 (not having completed a Bachelor's degree or higher)" and "ISCED 6, 7, or 8 (Bachelor's degree or higher)." On average across the ICCS countries, 2% of students had missing data. Among students with valid data, 56% reported the highest level of parental educational attainment as below Bachelor's level, while 44% of students reported attainment of Bachelor's level or above.

As a measure of home literacy resources, we used students' reports of number of books (broken down into six categories) in the home. The categories were "0 to 10 books," "11 to 25 books," "26 to 100 books," "101 to 200 books," and "more than 200 books." When summarizing the relationship between the number of books in the home and student civic knowledge, we used two categories: "Below 26 books" and "26 books and above." On average, less than 1% of ICCS students had missing data. Among those with valid data, 37% reported having fewer than 26 books at home while 63% said they had 26 books or more than 26 books at home.

Across the three socioeconomic background variables, the average civic knowledge of students in the higher groups was statistically significantly higher than that of students in the lower groups. However, the magnitude of the differences between groups for all three variables varied considerably across countries (Table 3.16).

Across all countries, the difference between the average civic knowledge scale scores of students in the high (SEI 50 and above) and low (SEI below 50) parental occupation groups was 53 scale points, with a minimum of 41 scale points in Chinese Taipei, Italy and Spain, and a maximum of 73 scale points in Bulgaria. The differences between the scale scores of students in the high and low groups were statistically significant in all participating entities.

The difference between the average civic knowledge scale scores of students in the high (ISCED Level 6 and above: tertiary) and low (Below ISCED Level 6: postsecondary non-tertiary and below) parental education groups across all countries was 47 scale points, with a minimum of 24 scale points in Colombia and a maximum of 65 scale points in Bulgaria and the Slovak Republic. The differences between the scale scores of students in the high and low groups were statistically significant in all participating entities.

Across all countries, the difference between the average civic knowledge scale scores of students who reported having 26 or more books at home and those students who reported fewer than 26 books in the home was 65 scale points, with a minimum of 38 scale points in the Croatia and a maximum of 90 scale points in the Slovak Republic. The differences between the scale scores of students in the high and low groups were statistically significant in all participating entities.

All three indicators of students' socioeconomic status contributed to a composite index of socioeconomic status. This index is included in the multilevel regression analyses presented in Chap. 7.

Table 3.16 Percentage by category for highest level parental occupation, parental education and the number of books in the home and comparison of average civic knowledge between categories

	Civic knowledge scores by parental occupation (SEI)				Civic knowledge scores by parental education (ISCED)				Civic knowledge scores by books in the home			
	SEI below 50		SEI 50 and above		Post secondary non-tertiary and below		Tertiary		Below 26		26 and above	
Country	%	Mean	Mean	%	%	Mean	Mean	%	%	Mean	Mean	%
Bulgaria	53 (1.6)	435 (5.2)	**507** (5.4)	47 (1.6)	46 (1.2)	422 (5.2)	**487** (5.0)	54 (1.2)	46 (1.5)	412 (4.9)	**496** (4.8)	54 (1.5)
Chinese Taipei	43 (1.3)	564 (2.9)	**605** (2.8)	57 (1.3)	53 (1.5)	562 (2.8)	**607** (3.0)	47 (1.5)	40 (1.2)	556 (3.2)	**602** (2.7)	60 (1.2)
Colombia	69 (1.4)	446 (3.8)	**496** (5.8)	31 (1.4)	58 (1.5)	443 (4.2)	**467** (5.2)	42 (1.5)	82 (1.2)	445 (3.6)	**488** (6.6)	18 (1.2)
Croatia[1]	55 (1.5)	514 (2.8)	**557** (2.8)	45 (1.5)	64 (1.6)	517 (2.8)	**559** (3.3)	36 (1.6)	40 (1.4)	509 (3.2)	**547** (3.2)	60 (1.4)
Cyprus	43 (0.9)	431 (2.8)	**491** (3.4)	57 (0.9)	29 (0.8)	425 (4.0)	**476** (3.2)	71 (0.8)	29 (0.9)	412 (3.2)	**480** (2.7)	71 (0.9)
Estonia	42 (1.8)	521 (4.6)	**571** (5.7)	58 (1.8)	42 (1.9)	521 (4.5)	**565** (7.4)	58 (1.9)	30 (1.4)	499 (4.4)	**566** (6.3)	70 (1.4)
France	52 (1.4)	490 (3.5)	**546** (3.1)	48 (1.4)	69 (1.1)	500 (3.2)	**537** (4.3)	31 (1.1)	37 (1.1)	465 (3.9)	**534** (3.2)	63 (1.1)
Italy	61 (1.5)	510 (3.9)	**551** (3.4)	39 (1.5)	68 (1.5)	509 (3.5)	**553** (3.9)	32 (1.5)	31 (1.4)	477 (3.2)	**544** (3.6)	69 (1.4)
Latvia[1]	49 (1.5)	477 (3.1)	**520** (3.0)	51 (1.5)	59 (1.4)	474 (2.8)	**517** (3.7)	41 (1.4)	36 (1.4)	457 (3.4)	**510** (3.1)	64 (1.4)
Lithuania	44 (1.6)	483 (3.3)	**542** (5.2)	56 (1.6)	56 (1.7)	482 (3.3)	**546** (5.5)	44 (1.7)	37 (1.6)	468 (3.5)	**534** (4.6)	63 (1.6)
Malta	50 (2.2)	473 (5.2)	**532** (6.2)	50 (2.2)	56 (1.8)	477 (6.9)	**509** (7.4)	44 (1.8)	31 (2.5)	438 (8.5)	**513** (5.7)	69 (2.5)
Netherlands†	49 (1.4)	490 (4.5)	**537** (5.5)	51 (1.4)	75 (1.5)	500 (3.9)	**550** (7.8)	25 (1.5)	39 (1.7)	469 (4.9)	**535** (4.3)	61 (1.7)
Norway (9)[1]	41 (1.2)	510 (2.7)	**564** (2.6)	59 (1.2)	35 (1.1)	501 (3.2)	**551** (2.9)	65 (1.1)	24 (0.8)	473 (3.7)	**550** (2.6)	76 (0.8)
Poland	52 (1.2)	533 (3.0)	**582** (2.7)	48 (1.2)	58 (1.4)	532 (2.8)	**589** (3.0)	42 (1.4)	32 (1.0)	513 (3.3)	**574** (2.4)	68 (1.0)
Romania	64 (4.8)	459 (7.7)	**514** (9.4)	36 (4.8)	61 (5.2)	449 (6.0)	**504** (11.4)	39 (5.2)	47 (4.4)	432 (5.9)	**505** (9.3)	53 (4.4)
Serbia	67 (1.8)	448 (3.2)	**508** (4.9)	33 (1.8)	70 (1.7)	449 (3.2)	**500** (5.0)	30 (1.7)	34 (1.5)	425 (3.8)	**484** (3.8)	66 (1.5)
Slovak Republic	58 (1.3)	480 (3.2)	**550** (3.7)	42 (1.3)	59 (1.4)	475 (3.7)	**540** (4.2)	41 (1.4)	34 (1.3)	442 (4.4)	**532** (3.4)	66 (1.3)
Slovenia	42 (1.1)	483 (2.6)	**525** (2.7)	58 (1.1)	57 (1.1)	493 (2.3)	**521** (3.3)	43 (1.1)	31 (1.0)	467 (2.8)	**521** (2.6)	69 (1.0)
Spain	56 (1.6)	496 (3.3)	**537** (3.6)	44 (1.6)	62 (1.3)	497 (3.5)	**536** (3.8)	38 (1.3)	35 (1.5)	475 (4.4)	**529** (3.2)	65 (1.5)
Sweden[1]	43 (1.6)	538 (4.0)	**601** (3.5)	57 (1.6)	38 (1.3)	534 (5.1)	**588** (3.8)	62 (1.3)	32 (1.4)	508 (4.4)	**594** (3.1)	68 (1.4)
ICCS 2022 average	52 (0.4)	489 (0.9)	**542** (1.0)	48 (0.4)	56 (0.4)	488 (0.9)	**535** (1.2)	44 (0.4)	37 (0.4)	467 (1.0)	**532** (1.0)	63 (0.4)
Countries not meeting sample participation requirements												
Brazil	72 (1.0)	450 (3.4)	**497** (4.9)	28 (1.0)	68 (1.1)	438 (3.0)	**496** (6.0)	32 (1.1)	77 (0.9)	441 (2.7)	**513** (6.9)	23 (0.9)
Denmark	36 (1.4)	527 (4.5)	**580** (3.6)	64 (1.4)	73 (1.2)	551 (3.3)	**591** (4.8)	27 (1.2)	31 (1.2)	516 (4.3)	**578** (3.4)	69 (1.2)
German benchmarking participant meeting sample participation requirements												
North Rhine-Westphalia	60 (1.2)	508 (3.1)	**579** (3.8)	40 (1.2)	84 (0.9)	530 (2.6)	**556** (6.9)	16 (0.9)	35 (1.0)	482 (3.3)	**558** (3.1)	65 (1.0)
German benchmarking participant not meeting sample participation requirements												
Schleswig-Holstein	54 (1.8)	521 (4.7)	**586** (4.7)	46 (1.8)	83 (1.1)	543 (4.2)	**566** (9.3)	17 (1.1)	27 (1.2)	484 (6.7)	**567** (4.6)	73 (1.2)

Notes:
Score averages which are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Difference between comparison groups statistically significant at p < 0.05.
Difference between comparison groups not statistically significant at p < 0.05.

3.8.4 Associations Between Civic Knowledge and Immigrant and Language Background

The ICCS 2022 student questionnaire included two questions that allowed us to measure and report on students' immigrant background and language background and to identify associations between these variables and civic knowledge.

The first question asked students to indicate in which country they and each of their parents were born. The international coding of the responses to this question classified each student and any reported parents as "born in country of test" or "not born in country of test." These data were further reduced to form a single variable relating to the student. This variable was coded as "immigrant family" when the student reported all parents[13] as born abroad (regardless of where the student was born) and "non-immigrant family" when at least one parent was born in the country where the survey was conducted. On average across ICCS countries, relevant data pertaining to this question were missing for 5% of the students. Among those students with valid data, 91% reported that they were from a non-immigrant family and 9% reported that they were from an immigrant family.

The second question asked students what language they spoke at home most of the time. This variable was coded as "language of test" or "other" for the purpose of the analyses. On average across the ICCS 2022 countries, relevant data were missing for less than 1% of the students. Among those with valid data, 86% of the students reported that they mainly spoke the language of testing at home. Fourteen percent said that they mainly spoke another language at home. It is important to keep in mind that within and across countries there is considerable variation among the students identified as being from immigrant backgrounds and those who do not speak the language of testing at home. These relate to the considerable variations in the histories, systems and contexts associated with immigration and language use among ICCS countries. The reported findings need to be interpreted with these highly diverse national contexts in mind.

As was the case with the ICCS 2009 and 2016 surveys, ICCS 2022 recorded significant associations between students' immigrant status, language background, and civic knowledge. Across all countries in 2016, the average civic knowledge scale score of students from non-immigrant families was 42 scale points higher than the average score for those students from immigrant families. The average civic knowledge score was 47 scale points higher among students who mainly spoke the language of the test at home than among those who mainly did not (Schulz et al., 2018, p. 68).

The data show that, in general in 2022, students from non-immigrant families had higher civic knowledge scale scores than those from immigrant families (Table 3.17). Similarly, those students who reported speaking the language of instruction (and the test) at home tended to have higher civic knowledge scale scores than those who did not. However, in contrast to the three socioeconomic status variables (reported in Table 3.16), there was considerably more variation across countries with respect to the associations between student immigrant background, language background, and civic knowledge.

A summary of the associations for ICCS 2022 between each of the immigrant and language background variables and student civic knowledge is reported (Table 3.17), including the percentage of students in each country within the immigrant and/or language background categories, together with the average achievement of students within each category. In some countries small percentages of students (5% or less) report having an immigrant family background or speaking a language other than the language of testing at home. These low proportions can reduce the likelihood of differences in average achievement between groups being reported as statistically significant. This should be considered when reading Table 3.17.

The civic knowledge scores of students from non-immigrant families were, on average, statistically significantly higher than the scores of students from immigrant families in 16 countries and the German benchmarking participant, North Rhine-Westphalia. In four countries, no significant differences in average student civic knowledge between the two groups were evident.

Across all countries, the difference between the average civic knowledge scale scores of students from non-immigrant and immigrant families was 42 scale points. The maximum difference was 98 scale points in the Slovak Republic. In Serbia, the difference was 11 scale points and was higher for students with an immigrant background, but this difference was not statistically significantly. The percentages of students from immigrant families varied from 1% in Bulgaria, Poland, and Romania to 21% in Cyprus and Sweden. The highest percentage of students from an immigrant background was 33% in the German benchmarking participant North Rhine-Westphalia.

Students who reported speaking the language of the test at home had statistically significantly higher average civic knowledge than those who did not in 16 countries and the German benchmarking participant, North Rhine-Westphalia. On average across all countries this difference was 47 scale points. However, in contrast to this general pattern of difference, in Cyprus and Malta, students who reported speaking a language other than the language of testing at home had small but

[13] All parents refers to both parents when a student reported on the background of two parents or to one parent if the student reported on the background of only one parent.

Table 3.17 Percentage by category for immigrant background and language spoken at home and comparison of average civic knowledge between categories

	Civic knowledge scores by immigrant background										Civic knowledge scores by language use									
	Immigrant family									Non-immigrant family			Other language						Language of test		
Country	%	Mean	-100	-50	0	50	100			Mean	%		%	Mean	-100	-50	0	50	100		Mean	%
Bulgaria	1 (0.1)	^								^	99 (0.1)		12 (1.5)	386 (9.1)							**466** (4.4)	88 (1.5)
Chinese Taipei	2 (0.3)	532 (11.6)								**587** (2.2)	98 (0.3)		9 (0.7)	536 (6.0)							**588** (2.2)	91 (0.7)
Colombia	4 (0.4)	412 (11.8)								**459** (3.7)	96 (0.4)		2 (0.2)	433 (13.5)							453 (3.8)	98 (0.2)
Croatia[1]	6 (0.7)	513 (9.2)								**534** (2.5)	94 (0.7)		2 (0.3)	494 (17.5)							**533** (2.5)	98 (0.3)
Cyprus	21 (1.0)	459 (5.0)								463 (2.7)	79 (1.0)		26 (0.8)	464 (4.0)							458 (2.7)	74 (0.8)
Estonia	6 (0.5)	511 (13.5)								**551** (5.4)	94 (0.5)		5 (0.6)	516 (11.1)							**547** (5.3)	95 (0.6)
France	16 (1.2)	484 (4.7)								**517** (3.4)	84 (1.2)		17 (1.2)	473 (5.3)							**516** (3.4)	83 (1.2)
Italy	13 (1.1)	488 (6.1)								**529** (3.8)	87 (1.1)		25 (1.4)	482 (4.3)							**537** (3.5)	75 (1.4)
Latvia[1]	5 (0.4)	436 (9.7)								**496** (2.7)	95 (0.4)		16 (1.8)	450 (6.5)							**499** (2.7)	84 (1.8)
Lithuania	2 (0.3)	478 (11.5)								**513** (4.1)	98 (0.3)		5 (0.7)	468 (7.3)							**511** (4.1)	95 (0.7)
Malta	13 (1.2)	490 (6.2)								495 (7.4)	87 (1.2)		51 (4.9)	497 (3.7)							483 (13.4)	49 (4.9)
Netherlands†	13 (1.3)	475 (9.2)								**515** (4.1)	87 (1.3)		13 (1.4)	472 (9.2)							**518** (4.2)	87 (1.4)
Norway (9)[1]	15 (0.9)	492 (5.3)								**544** (2.6)	85 (0.9)		15 (0.9)	481 (6.1)							**540** (2.6)	85 (0.9)
Poland	1 (0.1)	468 (11.5)								**556** (2.5)	99 (0.1)		1 (0.2)	487 (17.8)							**555** (2.5)	99 (0.2)
Romania	1 (0.3)	^								^	99 (0.3)		5 (1.0)	457 (24.4)							472 (9.0)	95 (1.0)
Serbia	4 (0.6)	475 (10.0)								465 (3.4)	96 (0.6)		4 (0.8)	400 (8.5)							**468** (3.5)	96 (0.8)
Slovak Republic	3 (0.4)	410 (17.6)								**508** (3.1)	97 (0.4)		11 (1.3)	403 (8.2)							**514** (3.3)	89 (1.3)
Slovenia	21 (1.1)	480 (4.5)								**514** (2.4)	79 (1.1)		10 (0.8)	453 (5.5)							**510** (2.3)	90 (0.8)
Spain	17 (1.3)	481 (5.0)								**521** (3.2)	83 (1.3)		25 (2.0)	476 (4.9)							**521** (3.2)	75 (2.0)
Sweden[1]	21 (1.8)	508 (6.0)								**585** (3.3)	79 (1.8)		20 (1.7)	498 (6.1)							**583** (3.1)	80 (1.7)
ICCS 2022 average	9 (0.2)	477 (2.2)								**519** (0.9)	91 (0.2)		14 (0.3)	466 (2.3)							**514** (1.1)	86 (0.3)
Countries not meeting sample participation requirements																						
Brazil	2 (0.3)	404 (24.3)								**464** (3.3)	98 (0.3)		1 (0.3)	428 (30.4)							457 (3.2)	99 (0.3)
Denmark	10 (0.8)	502 (6.2)								**565** (3.4)	90 (0.8)		7 (0.7)	500 (8.5)							**564** (3.2)	93 (0.7)
German benchmarking participant meeting sample participation requirements																						
North Rhine-Westphalia	33 (1.3)	487 (4.1)								**554** (3.2)	67 (1.3)		26 (1.2)	472 (4.7)							**551** (2.9)	74 (1.2)
German benchmarking participant not meeting sample participation requirements																						
Schleswig-Holstein	16 (1.5)	488 (8.0)								**558** (4.7)	84 (1.5)			485 (8.8)							**556** (4.5)	

Notes:
Score averages which are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
^ Number of students too small to report group average scores.

Difference between comparison groups statistically significant at p < 0.05.
Difference between comparison groups not statistically significant at p < 0.05.

nonetheless significantly higher civic knowledge than those who spoke the language of testing at home. These differences were six scale points in Cyprus and 14 scale points in Malta. In two countries, Colombia and Romania, there was no significant difference between the groups.

The differences in average civic knowledge scores between students who reported speaking the language of testing at home and those who did not varied from 14 scale points in Malta (with students speaking an "other" language at home having higher civic knowledge scores) to 111 scale points in the Slovak Republic. The percentages of students who spoke a language other than the language of testing at home varied from 1% in Poland to 51% in Malta.

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Aspects of Students' Civic Engagement

4

Chapter Highlights

Beliefs regarding civic engagement

- Nearly a third of surveyed students reported to be quite or very interested in political and social issues. These proportions were much higher for those who indicated greater interest for their parents or guardians. (Table 4.1)
- Students' citizenship self-efficacy varies across countries but has declined a little from 2016 to 2022, following a small increase between 2009 and 2016. (Table 4.2)
- Students' citizenship self-efficacy was strongly associated with their interest in social and political issues, but only weakly associated with levels of civic knowledge.

Students' civic engagement

- Students who report high levels of civic interest are likely to discuss these issues with parents and friends and to use digital media to find and share information. However, these aspects of engagement are not associated with civic knowledge or socioeconomic background. (Table 4.7)
- On average, more than one third of the students were engaged with a voluntary group doing something to help the community. (Table 4.10)
- Students' willingness to participate in civic activities at school is moderately associated with civic interest but only weakly with civic knowledge, as well as being a little higher for female than male students. (Table 4.13)

Expected future participation in civic or political activities

- Students' expected professing of opinions about social and political civic issues by illegal protest activities was negatively associated with civic knowledge but involvement through legal activities was not related to civic knowledge. (Table 4.17)
- Students' expected participation in activities to protect the environment is positively associated with civic knowledge. (Table 4.17)
- Students' expected electoral participation is consistently but weakly associated with socioeconomic background, civic interest, and civic knowledge. (Table 4.19)
- Students' expected active political participation is positively correlated with civic interest but tends to be negatively associated with civic knowledge. It is slightly lower for female than male students. (Table 4.21)

4.1 Introduction

Civic engagement is a central characteristic of democratic societies, and the nurture of civic engagement is commonly a goal of civic and citizenship education (as summarized in Chap. 2 of this report). Civic engagement was a focus of the 1999 International Association for the Evaluation of Educational Achievement (IEA) Civic Education Study (CIVED) which

W. Schulz et al., *Education for Citizenship in Times of Global Challenge*, https://doi.org/10.1007/978-3-031-65603-3_4

reported on opportunities for civic engagement and the relationship of civic engagement to the teaching of civic education and to civic knowledge (Torney-Purta et al., 2001). Civic engagement continued as an enduring focus in previous International Civic and Citizenship Education Study (ICCS) cycles (Schulz et al., 2010, 2018) as well as in ICCS 2022 (Schulz et al., 2023).

In this chapter we consider civic engagement as encompassing:

- Students' beliefs about their capacity to engage;
- Students' current civic engagement in their schools and other organizations (such as youth and community groups); and
- Students' expected future civic engagement through their support of civic issues as well as contributing to political systems through electoral processes and active political participation.

Conceptually, the capacity to engage and current civic engagement can be seen as being influenced by student background (for example, gender, socioeconomic, and immigrant background) and developed attributes (for example, civic knowledge and understanding and interest in social and political issues). Capacity to engage and current civic engagement are correlated and both influence expected future adult engagement (Pancer, 2015).

These issues are elaborated in the ICCS 2022 assessment framework (Schulz et al., 2023, p. 13) and captured in Research Question 3: *What is the extent of students' engagement in different spheres of society and which factors within or across countries are related to it?* This research question is related to indicators of student engagement and encompasses the following specific research questions:

(a) *What beliefs do students hold regarding their own capacity to engage and the value of civic participation?*
(b) *What is the extent and variation of students' civic participation in and out of school?*
(c) *Which expectations do students have regarding civic and political participation in the future?*
(d) *What changes in the extent and forms of student engagement can be observed since the previous ICCS cycles?*

Although the focus of the chapter is on students' beliefs about their capacity for civic engagement, their current civic engagement in their schools and other organizations, and their expected future civic engagement, we also investigate the associations of these aspects of engagement with selected student characteristics. The characteristics which we report are three of gender, socioeconomic background, interest in social and political issues, and civic knowledge. These were considered central and universal influences on engagement even though data on other characteristics are available for secondary analyses. In most tables, taking into account space considerations, we report against either gender or socioeconomic background and the two developed attributes of interest and civic knowledge.

The assessment framework for ICCS 2022 also identified focus areas that permeate the study and are addressed by various new or refined aspects related to civic and citizenship education (Schulz et al., 2023). The focus areas are sustainability, engagement through digital technologies, diversity, and young people's views of the political system. In addition, more explicit recognition is given to global citizenship as an overarching construct.

In this chapter, environmental protection (practices and policies for protecting the natural environment from degradation, pollution, biodiversity loss, and climate change), as an aspect of sustainability, is addressed as an issue for expected future civic engagement and how that expectation relates to students learning and development (Pizmony-Levy, 2011). Civic engagement through digital technologies, either to source information or exchange views with others, forms part of our investigation of various forms of civic engagement among lower-secondary students. Diversity and young people's views of political systems are addressed extensively in Chap. 5 which focusses on civic attitudes. Global citizenship is discussed in this chapter as part of our consideration of expected civic engagement as adults.

All scales presented in this chapter were derived using item response theory methods and are described in item maps contained in Appendix A.4 of this report. These map scale scores to expected item responses under the ICCS scaling model, which is also set out in Appendix A.4. Greater detail on the scaling and equating procedures for questionnaire items will be provided in the ICCS 2022 technical report (Schulz et al., forthcoming).

When interpreting cross-country comparisons of questionnaire data, readers should be aware that the formats used to gauge respondents' attitudes or perceptions across diverse national contexts may not always measure respondents' beliefs consistently across the different languages and cultures represented in this survey (see, for example, Desa et al., 2018; Heine et al., 2002; Van de gaer et al., 2012). Although the international research team has extensively reviewed issues of measurement invariance during the development stages of all ICCS cycles (see Schulz, 2009; Schulz et al., forthcoming; Schulz & Fraillon, 2011; Schulz & Friedman, 2018), it must be acknowledged that variations of scale scores across countries may be partly due to differences related to cultural or linguistic contexts. Furthermore, variations might also be due to differences in the ICCS

2022 assessment mode (paper or computer) given that there is evidence that respondents may express beliefs more openly in a computer-based environment (Feigelson & Dwight, 2000; Hart & Goldstein, 1985; for mode comparisons based on ICCS 2022 data, see Schulz et al., forthcoming).

4.2 Conceptual Background and Prior Research

4.2.1 Contemporary Contexts

There are important aspects of the contexts in which Research Question 3, with its sub-questions, is addressed in this study. One of these contexts is that young people may now become involved in civics and citizenship through virtual networks including those based on social media (Boulianne & Theocharis, 2020). Based on a meta-analysis of 106 survey-based studies, Boulianne and Theocharis (2020) argue that digital media use is associated with increased engagement in civic and political life through blogging, reading online news, and online political discussion. They further argue that these online activities have offline consequences on civic participation. We expect that these effects would vary across countries and therefore these newer forms of engagement receive more explicit recognition in ICCS 2022 than in previous cycles.

A second context to consider when interpreting results concerning civic engagement is the disruption to formal schooling associated with the COVID-19 pandemic. School closures associated with the COVID-19 pandemic, some of which were accompanied by remote learning provisions, impacted a large proportion of the student population across the world, to varying extents (UNESCO [United Nations Educational, Scientific and Cultural Organization], 2020). Education systems and schools implemented a variety of responses to the disruptions (Meinck et al., 2022; United Nations, 2020). Even though the evidence we obtained from country reports (see Chap. 2) suggested that civic and citizenship education continued, it seems possible that civic activities in schools might have been curtailed during the COVID-19 disruptions depending on how much these affected education in each national context.

A third context concerns the emergence of authoritarian government practices in many countries over the past 16 years (Repucci & Slipowitz, 2022). In some countries this shift may have been experienced by students personally, but more widely the emergence of more authoritarian governance styles in other countries can influence how students see the wider world, their judgments about how governments work, and their propensity to engage. It is also important to recognize that local activities may be organized at national or supra-national levels. Issues triggering engagement do not necessarily coincide with the levels that are the focus of engagement. For example, activities related to national or global issues may be undertaken at a local level.

4.2.2 Interest in Political and Social Issues

Interest in political issues is often regarded as a pre-requisite for the engagement of citizens (Prior & Bougher, 2018; Verba et al., 1995), and raising interest among students can be regarded as one important goal of civic and citizenship education (Claes & Hooghe, 2016). There is evidence that interest in politics is strongly influenced by socialization at home (Neundorf & Smets, 2017), and, together with civic knowledge, may be regarded as a mediator between teaching about citizenship and students' willingness to participate (Alscher et al., 2022).

While earlier IEA civic and citizenship education studies already included measures of student interest that were shown to be positive predictors of civic knowledge and participation (Amadeo et al., 2002; Torney et al., 1975; Torney-Purta et al., 2001), ICCS 2009 used a list of items covering students' interest in a broader range of six different political and social issues. Survey results from the first ICCS cycle showed that students tended to have considerable interest in political and social issues in their own countries but were less interested in international politics (Schulz et al., 2010). ICCS 2016 introduced a question that asked about the students' (overall) interest in political and social issues as well as their parents' interest in these issues. Students' interest was identified as being positively associated with expected civic engagement in the future (Schulz, 2018; Schulz et al., 2018). Students' and parents'/guardians' interest in political and social issues was measured in ICCS 2022 with the same question as in the previous cycle.

4.2.3 Citizenship Self-Efficacy

Self-efficacy is a long-established construct in the social sciences and is defined as based on people's "judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391). In a variety of domains, it has been shown to have a strong influence on individual choices, efforts, perseverance, and emotions related to tasks. Citizenship self-efficacy is a more specific construct that reflects self-confidence in active citizenship behavior, although there are variations in its definition (Beaumont, 2010; Eidhof & de Ruyter, 2022). Our review of relevant research literature suggests that developing enhanced citizenship self-efficacy is widely cited as a goal of civics and citizenship education at school (Schulz et al., 2023).

A study in Norway suggested that political self-efficacy is a stronger predictor of aspects of intended political participation than civic knowledge (Solhaug, 2006). In England, Germany, and Denmark, citizenship self-efficacy appeared to be associated with future learning about citizenship and intended future civic engagement, but the strength of the association appeared to vary across those countries (Hoskins et al., 2016). ICCS 2016 showed that students' confidence to participate in civic activities tended to be stronger than in ICCS 2009 and that it was associated with intended political participation (Schulz et al., 2018).

4.2.4 Current Civic Engagement

Young people can engage as citizens by seeking information about social and political issues, exchanging views about those issues with others and by participating in school-based activities, youth organizations, or community groups. However, there are limits to the extent that young people at the age of the ICCS target population are able to partake in civic engagement.

Civic engagement includes becoming informed about political, social, and civic issues, as well as exchanging views about those issues inside and outside school. We argue that these forms of civic engagement are more accessible to young people than participation in groups and activities. That focus on seeking and communicating information about social and political issues extends to a specific consideration of students' engagement with civic issues through digital media. In ICCS 2016, we found that two thirds of Grade 8 students watched television to be informed about national and international news on a weekly basis (Schulz et al., 2018). One-quarter read a newspaper (either print or online) to inform themself about national and international news and nearly four-fifths used the internet to find information about political or social issues (Schulz et al., 2018). Civic engagement by young people also includes discussing political and social issues, as well as what is happening in other countries, outside school with parents and friends (Wanders et al., 2021). Other studies have argued that there have been changes in the way young people consume news and that social media are increasingly a source of news for teenagers (Flamingo, 2021; Newman et al., 2022; Notley et al., 2020).

This conception of civic engagement as being informed about issues and exchanging views, is encompassed by a construct called latent political participation which is distinct from manifest political participation (Ekman & Amnå, 2012). According to this view, even though passivity in terms of political engagement may have increased, apparently passive citizens may still keep themselves informed and be willing to become engaged when they see it as appropriate (Amnå & Ekman, 2014).

Previous cycles of ICCS, and the earlier CIVED, reported that relatively small proportions of students participated in community organizations, such as human-rights groups, religious associations, and/or youth clubs (Schulz et al., 2010, 2018; Torney-Purta et al., 2001). However, in recent years a growing involvement of young people in global movements such Fridays for Future has been observed (de Moor et al., 2020). Furthermore, school-age civic participation has long been regarded as an important base for future engagement (Putnam, 1993, 2000).

In the research literature, there is a consensus that formal education and youth participation influences the extent of adult engagement in society (Pancer, 2015). In this literature, civic engagement is not confined to the sphere of politics and Putnam (1993) defines civic engagement as "people's connections with the life of their communities, not merely politics" (p. 665). Keating and Janmaat (2015), based on analyses of longitudinal data from the United Kingdom, suggested that participation in school-based political activities had a positive influence on future electoral and political engagement.

ICCS 2022 includes measures of the following types of active students' civic engagement (Schulz et al., 2023):

- Students' engagement with, and discussion of, news and information about social and political issues, including through the use of digital technologies;
- Students' engagement in community organizations and groups (outside of school); and
- Students' engagement in school civic activities.

4.2.5 Expected Future Civic Engagement

The enduring influences of civic and citizenship education on adult civic engagement would ideally be studied using longitudinal methods. However, such methods are difficult to implement because of sample attrition and the administrative complexities of implementing follow-up surveys. Therefore, the influences of civic and citizenship education on adult civic engagement are usually addressed by asking students about their expected future civic engagement or gathering retrospective reflections from adults about their experience of civic and citizenship education when they were students. Evidence suggests that young people who intend to participate in political activities are more likely to participate at a later point in time (Eckstein et al., 2013).

The expected ongoing participation among students in future school-based civic activities is also relevant because it reflects an orientation toward citizenship with implications for future electoral and political engagement (Keating & Janmaat, 2015). ICCS 2016 surveyed students' beliefs about their expectations of undertaking future civic activities within the school context (for example, voting in school elections or engaging in a public debate about school-related issues), and results showed that students' willingness to become involved at school was higher among female students and students with more interest in civic issues (Schulz et al., 2018). ICCS 2022 continued to gather data on students' expectations of civic engagement at school with four of the five items included in ICCS 2016.

Expected future civic engagement can refer to various types of activity extending beyond politics to broader aspects of community life including promoting and supporting actions in support of social issues (Verba et al., 1995). During the 1970s and 1980s, scholars introduced the notion of unconventional (social movement) activities (for example, grass-root campaigns, protest activities) (Barnes & Kaase, 1979). Unconventional activities could potentially include legal as well as illegal forms of engagement that promote reform and social action (Kaase, 1990), and these activities should be distinguished from conventional activities (for example, voting, running for office). Van Deth (2014) identified problem- or community-oriented forms of participation as well as individualized and creative modes of participation as further unconventional forms of political and social action (Theocharis & Van Deth, 2018; Weiss, 2020).

Earlier IEA studies of civic and citizenship education distinguished different forms of engagement with political processes, such as electoral participation (voting and related activities) and active political participation (membership of a political group or standing for election). Previous ICCS results of multivariate analyses illustrated that parental and student interest in social and political issues, trust in civic institutions, and experience of civic engagement at school or through community groups were predictors of expected electoral and active political participation (see, for example, Schulz et al., 2018).

4.3 Students' Beliefs Regarding Engagement

In this section we consider three measures of beliefs regarding engagement. We first consider students' interest in political and social issues. Second, we consider citizenship self-efficacy as an attribute developed by students, that previous ICCS studies have found to be associated with expected future civic engagement (Schulz et al., 2018). We then present data on students' beliefs about their influence on decision-making at their schools that reflects the environments in which they can engage as young citizens.

4.3.1 Students' Interest in Political and Social Issues

ICCS 2022 asked students to rate their own as well as their parents' or guardians' interest in political and social issues, using the same question as in the previous cycle in 2016 ("very interested," "quite interested," "not very interested," or "not at all interested"). From this question we developed two dichotomous indicators by distinguishing students and parent/guardians regarding the extent they were very or quite interested from those that were not very or not at all interested.

We compared the national percentages of students who indicated to be quite or very interested in political and social issues across participating countries in ICCS 2022 with the results from the previous cycle, and with parents' or guardians' level of interest (Table 4.1). The results show that overall in ICCS 2022 almost a third of students indicated that they were quite or very interested, ranging from 17% (in Serbia) to 46% (in Colombia). Compared to the previous cycle, there were only smaller changes across countries participating in both cycles. Overall, the proportion of interested students was roughly similar. However, while in Colombia, Italy, and Chinese Taipei we found significantly higher percentages compared to 2016, the proportions were lower in Croatia, Bulgaria, and Sweden. In contrast there were countries such as Norway where there were no, or very little, change between 2016 and 2022.

Table 4.1 National percentages of students' interest in political and social issues

Country	Percentages of students who are very or quite interested in political and social issues:					
	By ICCS survey cycle:			With parents/guardians reported as:		
	2022	2016	Difference (2022–2016)	Very or quite interested	Not very or not at all interested	Difference
Bulgaria	29 (1.1)	32 (1.3)	**-4** (1.7)	35 (1.3)	8 (1.0)	**27** (1.4)
Chinese Taipei	35 (0.9) △	29 (0.9)	**5** (1.3)	50 (1.2)	12 (0.8)	**39** (1.5)
Colombia	46 (1.1) ▲	29 (1.1)	**16** (1.6)	53 (1.2)	19 (1.4)	**35** (1.8)
Croatia[1]	27 (1.1) ▽	36 (1.1)	**-9** (1.6)	35 (1.4)	9 (1.1)	**26** (1.7)
Cyprus	27 (0.9) ▽	-	-	34 (1.1)	6 (0.8)	**28** (1.3)
Estonia	33 (1.5) △	34 (1.3)	-1 (2.0)	40 (1.5)	9 (1.3)	**30** (1.8)
France	34 (0.9) △	-	-	38 (1.1)	12 (1.5)	**27** (2.0)
Italy	39 (1.2) △	32 (1.1)	**8** (1.6)	44 (1.4)	15 (1.9)	**29** (1.9)
Latvia[1]	26 (0.9) ▽	28 (0.9)	-2 (1.3)	32 (1.2)	10 (1.1)	**23** (1.6)
Lithuania	35 (0.9) △	36 (1.1)	-1 (1.4)	39 (1.0)	11 (1.5)	**28** (1.8)
Malta	31 (1.2)	34 (0.8)	**-3** (1.4)	41 (1.3)	9 (0.6)	**33** (1.3)
Netherlands†	20 (1.0) ▼	18 (1.1)	2 (1.5)	26 (1.3)	6 (1.1)	**20** (1.5)
Norway (9)[1]	31 (0.7)	31 (0.9)	0 (1.2)	39 (0.9)	6 (0.7)	**33** (1.1)
Poland	40 (1.0) △	-	-	45 (1.0)	12 (1.3)	**33** (1.5)
Romania	28 (1.1) ▽	-	-	35 (1.3)	9 (1.7)	**26** (2.4)
Serbia	17 (0.8) ▼	-	-	27 (1.5)	8 (0.7)	**19** (1.7)
Slovak Republic	21 (0.9) ▽	-	-	27 (1.2)	5 (0.8)	**23** (1.3)
Slovenia	22 (0.9) ▽	24 (1.1)	-2 (1.4)	27 (1.0)	8 (1.0)	**19** (1.5)
Spain	30 (0.8)	-	-	35 (1.0)	11 (1.2)	**24** (1.5)
Sweden[1]	38 (1.1) △	44 (1.2)	**-6** (1.7)	46 (1.3)	10 (1.3)	**35** (1.9)
ICCS 2022 average	30 (0.2)			37 (0.3)	10 (0.3)	**28** (0.4)
ICCS 2016/2022 average	32 (0.3)	31 (0.3)	0 (0.4)			
Countries not meeting sample participation requirements						
Brazil	41 (1.0)			47 (0.9)	18 (1.4)	**29** (1.7)
Denmark	38 (1.1)			44 (1.2)	10 (1.3)	**34** (1.7)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	43 (1.3) ▲			48 (1.4)	15 (1.8)	**33** (2.2)
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	48 (2.0)			53 (2.0)	18 (2.9)	**35** (3.5)

Notes:
Statistically signficiant changes ($p < 0.05$) since 2016 or differences across sub-groups are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

When comparing students' interest by the level of interest among their parents or guardians (as reported by the students), we found considerable differences across these subgroups. Among students who rated their parents' or guardians' interest as higher, much higher percentages (37% on average) also indicated to be quite or very interested, while only every tenth student with parents or guardians not interested in political and social issues expressed interest of their own. This association was broadly consistent across participating countries.

4.3.2 Citizenship Self-Efficacy

ICCS 2022 included seven items reflecting different activities that were relevant for students of this age group: five were unchanged from ICCS 2016, one was modified from ICCS 2016, and one was a new item. Students rated their confidence ("very well," "fairly well," "not very well," or "not at all") to undertake the following activities: "Argue your point of view about a controversial political or social issue" (70% on average across countries reported they could do this fairly or very well); "stand as a candidate in a [school election]" (58%); "organize a group of students in order to achieve changes at school" (61%); "follow a debate about a controversial issue" (64%); "write a letter or email to a newspaper giving your view on a current issue" (59%); "speak in front of your class about a social or political issue" (54%); and "assess the credibility of information about political or social issues" (62%). We used these items to derive a scale called *students' citizenship self-efficacy*, which was highly reliable with an average reliability (Cronbach's alpha) of 0.87 and was equated to the scale established in ICCS 2009, where the ICCS 2009 average was 50 with a standard deviation of 10 for equally weighted national samples.

The national average scale scores for citizenship self-efficacy for 2009, 2016, and 2022 are reported (Table 4.2). Focusing on the national average scores for ICCS 2022 countries, those scores ranged from 48 in the Netherlands and the Slovak Republic to 54 in Romania and Chinese Taipei (a range of 0.6 standard deviations).

There was a small increase (0.1 standard deviations) in citizenship self-efficacy scores between 2009 and 2022 across the 15 countries common to both cycles. We observed increases of one fifth of a standard deviation or more in Chinese Taipei, Malta, Spain, and Sweden and smaller but statistically significant increases in Bulgaria, Cyprus, Estonia, Italy, and Norway, while in Colombia there was a small decline.

Across the 13 countries common to both ICCS 2022 and 2016, the results show no statistically significant difference in average citizenship self-efficacy over the intervening 6 years. Comparisons between 2009 and 2016 suggest that students' confidence had increased between the two first cycles of ICCS (Schulz et al., 2018).

When comparing national average scores of students' sense of citizenship self-efficacy across groups reflecting gender (female and male), the level of student interest in social and political issues,[1] and level of civic knowledge[2] (Table 4.3), we found that in all countries there was a strong positive association between citizenship self-efficacy and interest in social and political issues. On average the difference in citizenship self-efficacy between the two interest groups was more than five points (equivalent to 0.5 standard deviations). We observed the largest difference in Norway (more than seven points) and the smallest difference in Romania (about three points).

There were much smaller associations between citizenship self-efficacy and civic knowledge. Across the 20 countries that met participation requirements, the average difference in citizenship self-efficacy between the two civic knowledge groups was just about one scale point (approximately a tenth of a standard deviation). In 12 of the 20 countries, students with higher levels of civic knowledge expressed more confidence, with the largest difference observed for Cyprus (of almost four scale points). In Chinese Taipei and Colombia citizenship self-efficacy scores were significantly higher among students with lower levels of civic knowledge, while the differences in some other countries were not statistically significant.

On average, for the countries that met participation requirements, there was no significant difference in citizenship self-efficacy between girls and boys. However, in Bulgaria, Croatia, Cyprus, Italy, Poland, Romania, and Serbia we recorded higher citizenship self-efficacy scores among female students than male students, while in Chinese Taipei, France, and Sweden male students had higher scores than female students.

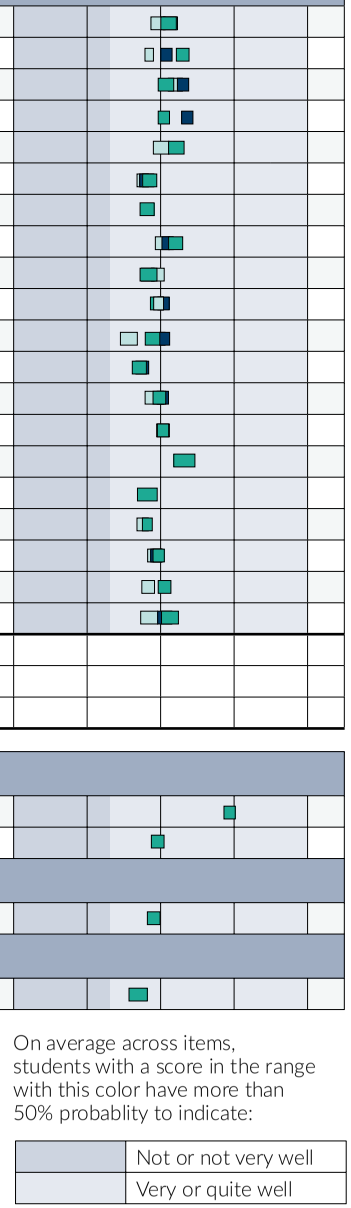
These results suggest that while citizenship self-efficacy tended to be strongly associated with interest in political and social issues, there were less consistent associations with civic knowledge and only very limited differences across gender groups.

[1] Student interest in social and political issues was coded for analyses reported in this chapter as "quite or very interested in civic issues" compared to "not very or not at all interested in civic issues."

[2] Students' level of civic knowledge was coded for analyses in this chapter as "at or above Level B" compared to "below Level B" on the civic knowledge scale described in Chap. 3.

Table 4.2 National average scale scores indicating students' citizenship self-efficacy

Country	2022	2016	2009	Difference (2022–2016)	Difference (2022–2009)
Bulgaria	52 (0.3) △	52 (0.3)	50 (0.3)	0.0 (0.4)	**1.6** (0.5)
Chinese Taipei	54 (0.2) ▲	52 (0.2)	48 (0.2)	**2.1** (0.4)	**5.7** (0.4)
Colombia	51 (0.3) △	53 (0.2)	53 (0.3)	**-1.8** (0.4)	**-1.3** (0.5)
Croatia[1]	52 (0.2) △	54 (0.2)	-	**-2.4** (0.4)	-
Cyprus	53 (0.3) △	-	51 (0.3)	-	**1.1** (0.5)
Estonia	49 (0.3) ▽	49 (0.2)	48 (0.2)	0.2 (0.4)	**1.2** (0.5)
France	49 (0.2) ▽	-	-	-	-
Italy	52 (0.2) △	52 (0.2)	51 (0.3)	**0.7** (0.4)	**1.3** (0.5)
Latvia[1]	49 (0.3) ▽	48 (0.2)	49 (0.2)	**1.0** (0.4)	-0.2 (0.5)
Lithuania	50 (0.2) ▽	51 (0.2)	50 (0.2)	**-1.0** (0.4)	-0.2 (0.4)
Malta	50 (0.4) ▽	50 (0.2)	47 (0.3)	-0.7 (0.4)	**3.3** (0.6)
Netherlands†	48 (0.3) ▼	48 (0.2)	-	-0.5 (0.4)	-
Norway (9)[1]	50 (0.2)	51 (0.2)	49 (0.3)	-0.2 (0.4)	**1.0** (0.5)
Poland	51 (0.2)	-	51 (0.2)	-	-0.1 (0.4)
Romania	54 (0.4) ▲	-	-	-	-
Serbia	49 (0.4) ▽	-	-	-	-
Slovak Republic	48 (0.2) ▽	-	48 (0.2)	-	0.0 (0.4)
Slovenia	50 (0.2) ▽	50 (0.2)	50 (0.3)	0.1 (0.4)	0.3 (0.5)
Spain	51 (0.2) △	-	49 (0.2)	-	**2.0** (0.5)
Sweden[1]	51 (0.3)	52 (0.2)	49 (0.3)	-0.6 (0.4)	**2.0** (0.5)
ICCS 2022 average	51 (0.1)	-	-	-	-
ICCS 2016/2022 average	51 (0.1)	51 (0.1)	-	-0.2 (0.1)	-
ICCS 2009/2022 average	51 (0.1)	-	50 (0.2)	-	**1.2** (0.1)
Countries not meeting sample participation requirements					
Brazil	55 (0.2)	-	-	-	-
Denmark	50 (0.2)	-	-	-	-
German benchmarking participant meeting sample participation requirements					
North Rhine-Westphalia	49 (0.2) ▽	-	-	-	-
German benchmarking participant not meeting sample participation requirements					
Schleswig-Holstein	49 (0.3)	-	-	-	-



Notes:
Statistically signficiant changes ($p < 0.05$) since 2009 and 2016 are displayed in **bold**.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 3 score points below ICCS 2022 average

2022 average score +/- confidence interval
2016 average score +/- confidence interval
2009 average score +/- confidence interval

On average across items, students with a score in the range with this color have more than 50% probablity to indicate:

	Not or not very well
	Very or quite well

Table 4.3 National average scale scores indicating students' citizenship self-efficacy by gender, students' interest and level of civic knowledge

Country	Scale score average by gender group: Male students	Scale score average by gender group: Female students	Scale score average by students' interest: Not interested in civic issues	Scale score average by students' interest: Quite or very interested in civic issues	Scale score average by level of civic knowledge: Civic knowledge below Level B (below 479)	Scale score average by level of civic knowledge: Civic knowledge at or above Level B (479 and above)
Bulgaria	51 (0.4)	**53** (0.4)	51 (0.3)	**55** (0.4)	51 (0.4)	**53** (0.3)
Chinese Taipei	**55** (0.4)	53 (0.3)	52 (0.3)	**57** (0.3)	**55** (0.9)	54 (0.2)
Colombia	51 (0.3)	51 (0.4)	49 (0.3)	**54** (0.4)	**52** (0.3)	50 (0.4)
Croatia[1]	51 (0.3)	**53** (0.3)	50 (0.2)	**56** (0.4)	49 (0.5)	**53** (0.2)
Cyprus	52 (0.4)	**53** (0.4)	51 (0.4)	**56** (0.4)	51 (0.4)	**55** (0.4)
Estonia	50 (0.4)	49 (0.3)	47 (0.3)	**53** (0.3)	47 (0.5)	**50** (0.3)
France	**50** (0.3)	48 (0.3)	47 (0.3)	**52** (0.3)	48 (0.5)	**50** (0.3)
Italy	52 (0.3)	**53** (0.3)	50 (0.3)	**56** (0.3)	50 (0.5)	**53** (0.3)
Latvia[1]	49 (0.4)	49 (0.4)	48 (0.3)	**53** (0.5)	48 (0.5)	**49** (0.4)
Lithuania	50 (0.3)	50 (0.3)	48 (0.3)	**52** (0.4)	49 (0.4)	50 (0.3)
Malta	50 (0.3)	50 (0.4)	48 (0.4)	**54** (0.4)	49 (0.4)	50 (0.5)
Netherlands†	48 (0.3)	47 (0.3)	47 (0.3)	**51** (0.5)	48 (0.5)	48 (0.3)
Norway (9)[1]	51 (0.3)	50 (0.3)	48 (0.2)	**56** (0.3)	50 (0.4)	**51** (0.2)
Poland	50 (0.3)	**52** (0.3)	49 (0.3)	**54** (0.2)	49 (0.5)	**51** (0.2)
Romania	53 (0.4)	**55** (0.4)	53 (0.5)	**56** (0.4)	53 (0.5)	**55** (0.5)
Serbia	48 (0.5)	**49** (0.4)	47 (0.4)	**54** (0.5)	47 (0.5)	**50** (0.5)
Slovak Republic	48 (0.3)	48 (0.3)	47 (0.2)	**53** (0.3)	48 (0.4)	48 (0.2)
Slovenia	50 (0.3)	50 (0.3)	49 (0.2)	**54** (0.4)	49 (0.4)	**51** (0.3)
Spain	51 (0.3)	52 (0.3)	50 (0.3)	**54** (0.4)	51 (0.4)	52 (0.3)
Sweden[1]	**52** (0.4)	50 (0.4)	49 (0.4)	**55** (0.4)	51 (0.8)	51 (0.3)
ICCS 2022 average	51 (0.1)	**51** (0.1)	49 (0.1)	**54** (0.1)	50 (0.1)	**51** (0.1)
Countries not meeting sample participation requirements						
Brazil	55 (0.4)	55 (0.3)	53 (0.3)	**58** (0.3)	55 (0.3)	55 (0.3)
Denmark	50 (0.4)	50 (0.3)	48 (0.2)	**54** (0.3)	48 (0.6)	**51** (0.2)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	49 (0.3)	49 (0.3)	47 (0.3)	**53** (0.3)	48 (0.4)	**50** (0.3)
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	49 (0.5)	49 (0.4)	47 (0.5)	**52** (0.4)	49 (0.9)	49 (0.3)

Notes:
Score averages which are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups not statistically significant at $p < 0.05$.

4.3.3 Influence on School Decision-Making

In ICCS 2022, students were asked about their views of student participation in their school. This question was newly developed for ICCS 2022 but was partly based on a question regarding students' valuing of student participation in general, which had been used in previous cycles of this study. The question included in the ICCS 2022 student questionnaire focused on how students' viewed participation at their own school.

The international student questionnaire asked students to rate their agreement ("strongly agree," "agree," "disagree," or "strongly disagree") with the following statements: "Students' participation in decision-making contributes to make my school better" (80% of students on average across participating countries agreed or strongly agreed with this statement); "there are clear rules about how students can be involved in decision-making at my school" (70%); "my school encourages students to organize in groups to express their opinions" (60%); "students can influence decisions that affect our whole school" (58%); "voting in student elections makes a difference to what happens at my school" (62%); and "students' interests are usually considered when decisions are made at my school" (66%).

The six items were designed to measure a scale reflecting students' perception of the value of participation at their school. The scale had high reliability (Cronbach's alpha = 0.81) on average across countries and high scores on the scale reflected positive views of student participation in their school.

On average across ICCS countries, most students express agreement with the statements, ranging from 80% of students for the statement "students' participation in decision-making contributes to make my school better" to 58% of students for the statement "students can influence decisions that affect our whole school" (Table 4.4).

Reviewing the average scale scores for ICCS countries (also shown in Table 4.4), the highest average scale scores were recorded for Colombia (57 points) and Chinese Taipei (56 points) while we observed the lowest average scores among students in the Netherlands (46 points). The 11-point difference between the highest and lowest average scores is a little more than one international standard deviation, suggesting that there were considerable differences among education systems in the extent to which students viewed their schools as responsive to, and supportive of, student opinions. Bulgaria and Malta also had scores significantly higher than the ICCS 2022 average. Countries with scores significantly lower than the ICCS 2022 average were Croatia, Cyprus, Estonia, Latvia, Poland, Serbia, the Slovak Republic, Slovenia, and Sweden.[3]

4.3.4 Extent and Variation of Students' Civic Engagement

Our review of research about civic engagement stressed the foundation provided by current civic engagement for future civic engagement. It also identified the variety of forms of civic engagement available to young people. Our investigation of students' civic engagement encompasses their sources of information about political or social issues, their communication about political, social, and civic issues, and the extent of discussions of political or social issues outside school. That focus on seeking and communicating information extended to a specific consideration of students' engagement with civic issues through digital media. The investigation also considered students' participation in community groups or organizations and their participation in school civic-related activities.

4.3.5 Sources of Information About Political or Social Issues

ICCS 2022 asked students to report the frequency ("never or hardly ever," "monthly (at least once a month)," "weekly (at least once a week)," or "daily or almost daily") of undertaking the following information-related sources: "Watching television to inform yourself about national and international news"; "reading the newspaper (including online versions) to inform yourself about national and international news"; and "using the internet to find information about political or social issues." We recognize that these last two information sources could potentially overlap.

When reviewing the percentages of students who reported at least weekly participation in these activities (Table 4.5), the results indicate that, in 2022, the most common source of information about political or social issues was watching television (50%), followed by using the internet (29%), and then by reading a newspaper in print or online format (20%). Using data

[3]Reviews of national average scores of students' beliefs about their influence on decision-making at school by gender, student interest in social and political issues, and civic knowledge suggest no, or only small, significant associations between students' beliefs about their influence on decision-making at school and these characteristics. Given the absence of informative relationships these results were not included in this chapter.

Table 4.4 National percentages and scale scores indicating students' perceptions of influence on school decisions

Country	Percentages of students agree or strongly agree that: Students' participation in decision-making contributes to make my school better (%)	There are clear rules about how students can be involved in decision-making at my school (%)	Students' interests are usually considered when decisions are made at my school (%)	Voting in student elections makes a difference to what happens at my school (%)	My school encourages students to organize in groups to express their opinion (%)	Students can influence decisions that affect our whole school (%)	Average scale scores indicating students' beliefs about their influence on decision-making at school
Bulgaria	82 (1.0)	77 (1.1) △	71 (1.2) △	74 (1.0) ▲	68 (1.3) △	63 (1.2) △	52 (0.3) △
Chinese Taipei	91 (0.6) ▲	81 (0.9) ▲	86 (0.9) ▲	82 (0.9) ▲	74 (1.1) ▲	76 (1.0) ▲	56 (0.3) ▲
Colombia	91 (0.5) ▲	90 (0.6) ▲	81 (0.8) ▲	82 (0.8) ▲	81 (0.9) ▲	73 (0.9) ▲	57 (0.3) ▲
Croatia[1]	76 (1.1) ▽	68 (1.3)	57 (1.5) ▽	62 (1.2)	57 (1.2) ▽	47 (1.4) ▼	48 (0.3) ▽
Cyprus	77 (1.0) ▽	68 (1.0)	57 (1.1) ▽	58 (1.1) ▽	57 (1.1) ▽	57 (0.9)	49 (0.2) ▽
Estonia	80 (1.2)	65 (1.3) ▽	71 (1.4) △	70 (1.2) △	57 (1.3) ▽	54 (1.7) ▽	49 (0.3) ▽
France	77 (1.1) ▽	76 (1.1) △	63 (1.1) ▽	54 (1.1) ▽	62 (1.1)	64 (0.9) △	50 (0.2)
Italy	84 (1.1) △	67 (1.3) ▽	62 (1.2) ▽	54 (1.6) ▽	66 (1.2) △	55 (1.7)	50 (0.3)
Latvia[1]	82 (0.9)	67 (1.1) ▽	68 (1.3)	61 (1.3)	54 (1.3) ▽	57 (1.3)	49 (0.3) ▽
Lithuania	81 (1.0)	69 (1.0)	66 (1.3)	71 (1.0) △	52 (1.2) ▽	64 (1.4) △	50 (0.3)
Malta	85 (1.1) △	73 (1.4) △	71 (1.3) △	64 (2.1)	71 (1.7) ▲	69 (1.6) ▲	52 (0.4) △
Netherlands†	74 (1.2) ▽	51 (1.6) ▼	65 (1.4)	45 (1.5) ▼	42 (1.4) ▼	48 (1.5) ▼	46 (0.3) ▼
Norway (9)[1]	75 (0.8) ▽	66 (0.9) ▽	68 (1.0) △	68 (1.0) △	44 (1.0) ▼	63 (1.0) △	50 (0.2)
Poland	79 (1.0)	66 (1.1) ▽	55 (1.1) ▼	80 (1.0) ▲	47 (1.3) ▼	60 (1.2)	49 (0.3) ▽
Romania	89 (1.1) △	66 (1.9) ▽	68 (1.9)	59 (2.5)	68 (2.1) △	55 (2.3)	51 (0.5)
Serbia	79 (1.0)	72 (1.2) △	57 (1.4) ▽	47 (1.7) ▼	65 (1.4) △	46 (1.3) ▼	49 (0.3) ▽
Slovak Republic	80 (0.9)	69 (1.2)	66 (1.1)	48 (1.4) ▼	49 (1.4) ▼	45 (1.2) ▼	48 (0.2) ▽
Slovenia	65 (1.1) ▼	69 (1.0)	63 (1.2) ▽	54 (1.2) ▽	65 (1.0) △	56 (1.2) ▽	48 (0.3) ▽
Spain	80 (0.8)	74 (0.9) △	64 (1.1)	61 (1.1)	65 (1.1) △	53 (1.0) ▽	50 (0.2)
Sweden[1]	83 (1.0) △	63 (1.3) ▽	64 (1.2)	53 (1.3) ▽	59 (1.1)	60 (1.2)	49 (0.3) ▽
ICCS 2022 average	80 (0.2)	70 (0.3)	66 (0.3)	62 (0.3)	60 (0.3)	58 (0.3)	50 (0.1)
Countries not meeting sample participation requirements							
Brazil	85 (0.7)	77 (0.8)	66 (0.9)	69 (0.9)	69 (0.9)	59 (0.9)	52 (0.2)
Denmark	79 (1.0)	57 (1.2)	61 (1.4)	56 (1.6)	37 (1.1)	56 (1.4)	47 (0.2)
German benchmarking participant meeting sample participation requirements							
North Rhine-Westphalia	81 (1.1)	71 (0.9)	68 (1.1)	75 (1.2) ▲	57 (1.2) ▽	55 (1.5)	50 (0.3)
German benchmarking participant not meeting sample participation requirements							
Schleswig-Holstein	82 (1.1)	73 (1.6)	71 (1.3)	76 (1.5)	58 (1.5)	63 (1.5)	51 (0.3)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

Table 4.5 Students' participation in communication about political or social issues

Country	Percentages of students who report to do this activity at least once a week:												
	Watching television to inform yourself about national and international news					Reading the paper (including online versions) to inform yourself about national and international news					Using the internet to find information about political or social issues		
	2022	2016	2009	Difference (2022–2016)	Difference (2022–2009)	2022	2016	2009	Difference (2022–2016)	Difference (2022–2009)	2022	2016	Difference (2022–2016)
Bulgaria	51 (1.1)	72 (1.1)	72 (1.1)	**-21** (1.6)	**-21** (1.5)	20 (0.9)	20 (1.0)	37 (0.9)	0 (1.3)	**-16** (1.3)	25 (0.9) ▽	26 (0.9)	0 (1.3)
Chinese Taipei	75 (0.8) ▲	80 (0.6)	80 (0.6)	**-5** (1.0)	**-5** (1.0)	27 (1.1) △	35 (1.0)	56 (0.9)	**-8** (1.4)	**-29** (1.4)	35 (0.9) △	65 (1.0)	**-30** (1.3)
Colombia	56 (1.2) △	79 (0.8)	84 (0.6)	**-22** (1.4)	**-28** (1.3)	24 (1.0) △	35 (1.4)	38 (1.3)	**-11** (1.7)	**-14** (1.6)	26 (1.2) ▽	29 (0.9)	-2 (1.5)
Croatia[1]	49 (1.3)	64 (1.0)	-	**-16** (1.6)	-	23 (1.0) △	25 (1.0)	-	-2 (1.5)	-	30 (1.1)	34 (1.2)	**-4** (1.6)
Cyprus	42 (1.2) ▽	-	49 (1.1)	-	**-7** (1.6)	11 (0.5) ▽	-	16 (0.7)	-	**-5** (0.9)	21 (0.7) ▽	-	-
Estonia	44 (1.4) ▽	65 (1.1)	75 (1.0)	**-21** (1.7)	**-31** (1.7)	29 (1.6) △	30 (1.4)	53 (1.2)	-1 (2.1)	**-24** (2.0)	29 (1.2)	26 (1.2)	3 (1.7)
France	57 (1.0) △	-	-	-	-	16 (0.7) ▽	-	-	-	-	25 (0.7) ▽	-	-
Italy	68 (1.0) ▲	74 (1.0)	78 (0.9)	**-6** (1.4)	**-10** (1.4)	28 (1.0) △	27 (1.1)	36 (1.3)	1 (1.5)	**-8** (1.7)	43 (1.2) ▲	35 (1.0)	**8** (1.5)
Latvia[1]	33 (1.2) ▼	57 (1.2)	76 (1.1)	**-24** (1.7)	**-43** (1.6)	18 (0.9) ▽	20 (0.8)	37 (1.2)	-2 (1.2)	**-19** (1.5)	34 (1.1) △	37 (1.2)	**-4** (1.6)
Lithuania	48 (1.2)	73 (1.0)	76 (0.9)	**-24** (1.6)	**-28** (1.5)	28 (1.0) △	23 (1.1)	45 (1.2)	**6** (1.5)	**-17** (1.5)	40 (1.1) ▲	37 (1.1)	2 (1.6)
Malta	44 (1.2) ▽	65 (0.9)	64 (0.9)	**-21** (1.5)	**-20** (1.5)	19 (0.9)	16 (0.7)	28 (1.0)	**4** (1.1)	**-9** (1.3)	31 (1.4)	25 (0.7)	**6** (1.6)
Netherlands†	46 (1.1) ▽	63 (1.3)	-	**-16** (1.7)	-	12 (0.7) ▽	18 (1.2)	-	**-6** (1.4)	-	26 (1.2) ▽	10 (0.7)	**15** (1.4)
Norway (9)[1]	39 (0.8) ▼	55 (1.0)	71 (1.3)	**-16** (1.3)	**-32** (1.5)	29 (0.7) △	27 (0.8)	54 (1.3)	**2** (1.1)	**-25** (1.4)	29 (0.8)	27 (0.7)	**2** (1.1)
Poland	59 (1.0) △	-	78 (0.9)	-	**-19** (1.3)	28 (1.0) △	-	48 (1.1)	-	**-20** (1.5)	41 (1.1) ▲	-	-
Romania	38 (1.4) ▼	-	-	-	-	17 (0.9) ▽	-	-	-	-	28 (1.7)	-	-
Serbia	45 (1.1) ▽	-	-	-	-	16 (0.8) ▽	-	-	-	-	21 (0.9) ▽	-	-
Slovak Republic	54 (0.9) △	-	73 (1.2)	-	**-19** (1.5)	25 (1.0) △	-	51 (1.4)	-	**-26** (1.7)	26 (1.0) ▽	-	-
Slovenia	33 (1.0) ▼	59 (1.2)	54 (1.3)	**-25** (1.6)	**-21** (1.6)	12 (0.7) ▽	17 (0.9)	32 (1.0)	**-4** (1.1)	**-20** (1.2)	21 (0.8) ▽	20 (0.9)	0 (1.2)
Spain	62 (1.0) ▲	-	73 (1.1)	-	**-10** (1.4)	15 (0.6) ▽	-	25 (0.9)	-	**-10** (1.1)	21 (0.8) ▽	-	-
Sweden[1]	50 (1.0)	57 (1.1)	49 (1.0)	**-7** (1.5)	1 (1.5)	13 (0.6) ▽	29 (0.9)	51 (1.2)	**-16** (1.1)	**-38** (1.3)	26 (0.8) ▽	33 (1.1)	**-7** (1.4)
ICCS 2022 average	50 (0.2)	-	-	-	-	21 (0.2)	-	-	-	-	29 (0.2)	-	-
ICCS 2016/2022 average	49 (0.3)	66 (0.3)	-	**-17** (0.4)	-	22 (0.3)	25 (0.3)	-	**-3** (0.4)	-	30 (0.3)	31 (0.3)	-1 (0.4)
ICCS 2009/2022 average	51 (0.3)	-	70 (0.3)	-	**-20** (0.4)	22 (0.2)	-	41 (0.3)	-	**-19** (0.4)	-	-	-
Countries not meeting sample participation requirements													
Brazil	53 (0.9)	-	-	-	-	26 (0.9)	-	-	-	-	37 (0.9)	-	-
Denmark	43 (1.0)	-	-	-	-	24 (0.9)	-	-	-	-	36 (1.1)	-	-
German benchmarking participant meeting sample participation requirements													
North Rhine-Westphalia	48 (1.3)	-	-	-	-	22 (0.9)	-	-	-	-	30 (1.0)	-	-
German benchmarking participant not meeting sample participation requirements													
Schleswig-Holstein	49 (1.5)	-	-	-	-	24 (1.3)	-	-	-	-	32 (1.5)	-	-

Notes:
Score averages which are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

from common countries across ICCS cycles, it is evident that, between 2016 and 2022, television has declined as an information source from 66% of weekly or more frequent users to 49% on average across participating countries, while in the previous cycle there had been little difference in watching television news on a weekly or more frequent basis between 2009 and 2016 (Schulz et al., 2018). We recognize that other sources of news information may have emerged.

Over the same period from 2016 to 2022, newspaper reading declined as a source of news on a weekly or more frequent basis from 25% to 22% after there had been a more substantial decline in newspaper reading among youth in this age group from 41% in 2009 to 22% in 2022.

On average across countries, there was little change between 2016 and 2022 in the percentages of students who reported using the internet to find information about political or social issues on at least a weekly basis. Intriguingly, while the percentages were higher in a few countries, in others there were statistically significant declines in this proportion, most notably in Chinese Taipei, where the proportion decreased by 30 percentage points. A possible interpretation for these declines might be that news information is available through social media rather than being obtained by more formal internet searching. These decreases are consistent with evidence about changes in the way young people consume news (Notley et al., 2020).

4.3.6 Discussion of Political or Social Issues Outside School

Aspects of communication about political and social issues were also investigated with items (which had been used in previous cycles) that measured the frequency ("never or hardly ever," "monthly (at least once a month)," "weekly (at least once a week)," or "daily or almost daily") of students' communication about political or social issues, and what is happening in other countries, through discussions outside school with parents or friends.

We compared national percentages indicating students' discussions with parents, on a weekly or more frequent basis, of political or social issues for ICCS 2022, 2016, and 2009 (Table 4.6a). The data for ICCS 2022 indicate that national percentages engaging in weekly discussions with parents averaged 34% and ranged from 47% in Italy and 46% in Lithuania to 19% in Slovenia and 20% in Serbia. Over time, there was an increase in discussion of social and political issues with parents between 2009 and 2022 across countries that participated in both ICCS cycles by an average of 11 percentage points. Between 2016 and 2022 there was an average increase of 10 percentage points. The largest increases occurred in Lithuania and Sweden.

National percentages for students' discussions with parents, on a weekly or more frequent basis, about what is happening in other countries were a little higher and averaged 51% in 2022. The proportion was highest in Italy (70%) and lowest in Serbia (33%). Average national percentages across common countries had increased by 14 percentage points between 2009 and 2022 and by five percentage points between 2016 and 2022.

We also recorded national percentages indicating students' discussions with friends, on a weekly or more frequent basis, of political or social issues, for all three ICCS cycles (Table 4.6b). National percentages engaging in weekly discussions with friends averaged 24% and ranged from 38% in Lithuania to 13% in Slovenia. Over time, there was an increase in discussion of social and political issues with friends between 2009 and 2022 across countries that participated in both ICCS cycles by an average of 11 percentage points. Between 2016 and 2022 we observed an average increase of nine percentage points.

National percentages for students' discussions with friends, on a weekly or more frequent basis, about what is happening in other countries averaged 36% in 2022. This was highest in Malta (49%) and lowest in the Netherlands (25%). Average national percentages across common countries had increased by 14 percentage points between 2009 and 2022 and by nine percentage points between 2016 and 2022.

From these data we conclude that discussions about political or social issues, and about what is happening in other countries, were reasonably widespread and had increased over the period from 2009 to 2022. Discussions about what is happening in other countries were more widespread than discussions about social and political issues and discussions with friends were more widespread than discussions with parents. Events such as the Russian invasion of Ukraine in February 2022 might have influenced student responses in some of the participating countries. Important elections in Italy and France at the time of the survey may have also sparked discussion.

We derived a scale from the four items concerned with discussions about political and social issues, which was equated to the metric established in ICCS 2009 and had satisfactory reliability on average across countries (Cronbach's alpha = 0.77). We compared the national average scores of students' discussions of political or social issues outside school by socioeconomic background, student interest in social and political issues, and level of civic knowledge (code noted previously) (Table 4.7). On average across ICCS countries, it appeared there were no significant associations between students' discussions of

Table 4.6a Students' participation in communication with parents about political or social issues

Country	Percentages of students who report to do this activity at least once a week:									
	Talking with your parent(s) about political or social issues					Talking with your parent(s) about what is happening in other countries				
	2022	2016	2009	Difference (2022–2016)	Difference (2022–2009)	2022	2016	2009	Difference (2022–2016)	Difference (2022–2009)
Bulgaria	27 (1.0) ▽	20 (0.8)	24 (1.1)	**6** (1.3)	**3** (1.5)	38 (1.0) ▼	41 (1.3)	40 (1.3)	**-4** (1.6)	-2 (1.7)
Chinese Taipei	37 (0.9) △	25 (0.8)	25 (0.7)	**11** (1.2)	**12** (1.2)	48 (1.2) ▽	39 (1.0)	38 (0.7)	**9** (1.6)	**9** (1.4)
Colombia	35 (1.0)	22 (0.9)	27 (0.7)	**13** (1.3)	**8** (1.2)	49 (1.1)	45 (0.8)	48 (1.0)	**4** (1.4)	1 (1.5)
Croatia[1]	30 (1.1) ▽	24 (0.8)	-	**6** (1.4)	-	50 (1.1)	49 (1.1)	-	1 (1.6)	-
Cyprus	34 (1.0)	-	22 (0.8)	-	**12** (1.3)	55 (1.2) △	-	39 (0.9)	-	**16** (1.5)
Estonia	34 (1.6)	21 (1.3)	16 (1.0)	**13** (2.0)	**18** (1.9)	49 (1.6)	40 (1.1)	30 (1.2)	**8** (2.0)	**18** (2.0)
France	36 (1.0) △	-	-	-	-	56 (1.0) △	-	-	-	-
Italy	47 (1.3) ▲	34 (1.2)	38 (1.2)	**13** (1.8)	**9** (1.8)	70 (1.0) ▲	61 (1.2)	55 (1.2)	**9** (1.6)	**16** (1.5)
Latvia[1]	34 (0.9)	29 (1.0)	32 (1.2)	**5** (1.3)	2 (1.5)	50 (1.1)	47 (1.3)	41 (1.4)	3 (1.7)	**10** (1.7)
Lithuania	46 (1.1) ▲	26 (0.8)	23 (0.7)	**20** (1.4)	**24** (1.3)	59 (1.1) △	50 (1.0)	40 (0.9)	**9** (1.4)	**19** (1.4)
Malta	35 (1.2)	29 (0.8)	25 (1.1)	**5** (1.4)	**10** (1.6)	49 (2.0)	51 (0.8)	40 (1.3)	-1 (2.1)	**9** (2.3)
Netherlands†	27 (1.2) ▽	20 (1.0)	-	**7** (1.6)	-	53 (1.3)	46 (1.2)	-	**7** (1.7)	-
Norway (9)[1]	35 (0.7) △	24 (0.8)	22 (1.0)	**11** (1.1)	**13** (1.2)	52 (0.9)	43 (0.9)	35 (1.3)	**10** (1.3)	**18** (1.6)
Poland	42 (1.0) △	-	29 (1.0)	-	**13** (1.5)	56 (1.1) △	-	39 (1.0)	-	**17** (1.5)
Romania	29 (1.6) ▽	-	-	-	-	44 (2.2) ▽	-	-	-	-
Serbia	20 (0.9) ▼	-	-	-	-	33 (1.3) ▼	-	-	-	-
Slovak Republic	35 (1.1)	-	22 (0.8)	-	**13** (1.4)	50 (1.1)	-	30 (0.9)	-	**20** (1.4)
Slovenia	19 (0.7) ▼	17 (0.9)	12 (0.8)	2 (1.2)	**7** (1.1)	39 (0.9) ▼	43 (1.2)	33 (1.1)	**-4** (1.5)	**6** (1.4)
Spain	34 (0.9)	-	21 (0.7)	-	**13** (1.2)	62 (1.0) ▲	-	38 (0.9)	-	**24** (1.3)
Sweden[1]	39 (1.1) △	27 (1.2)	18 (0.9)	**12** (1.6)	**21** (1.4)	57 (1.3) △	48 (1.4)	28 (1.0)	**10** (1.9)	**30** (1.6)
ICCS 2022 average	34 (0.2)	-	-	-	-	51 (0.3)	-	-	-	-
ICCS 2016/2022 average	34 (0.3)	25 (0.3)	-	**10** (0.4)	-	51 (0.3)	46 (0.3)	-	**5** (0.5)	-
ICCS 2009/2022 average	35 (0.3)	-	24 (0.2)	-	**12** (0.4)	52 (0.3)	-	38 (0.3)	-	**14** (0.4)
Countries not meeting sample participation requirements										
Brazil	39 (0.8)	-	-	-	-	39 (0.9)	-	-	-	-
Denmark	46 (1.2)	-	-	-	-	67 (0.9)	-	-	-	-
German benchmarking participant meeting sample participation requirements										
North Rhine-Westphalia	54 (1.0) ▲	-	-	-	-	71 (1.1) ▲	-	-	-	-
German benchmarking participant not meeting sample participation requirements										
Schleswig-Holstein	57 (1.3)	-	-	-	-	69 (1.4)	-	-	-	-

Notes:
Statistically signficiant changes ($p < 0.05$) since 2009 and 2016 are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

Table 4.6b Students' participation in communication with friends about political or social issues

Country	Percentages of students who report to do this activity at least once a week:									
	Talking with friends about political or social issues					Talking with friends about what is happening in other countries				
	2022	2016	2009	Difference (2022–2016)	Difference (2022–2009)	2022	2016	2009	Difference (2022–2016)	Difference (2022–2009)
Bulgaria	21 (1.0) ▽	16 (1.0)	17 (0.9)	**5** (1.4)	3 (1.4)	32 (0.9) ▽	32 (1.1)	30 (1.1)	0 (1.5)	2 (1.6)
Chinese Taipei	31 (1.0) △	15 (0.7)	14 (0.6)	**16** (1.2)	17 (1.1)	36 (1.0)	23 (0.8)	22 (0.8)	**14** (1.2)	1 (1.1)
Colombia	22 (1.0) ▽	14 (0.8)	15 (0.7)	**8** (1.3)	6 (1.3)	36 (1.0)	26 (0.8)	29 (1.0)	**10** (1.3)	**-3** (1.3)
Croatia[1]	21 (1.0) ▽	15 (1.0)	-	**6** (1.4)	-	34 (1.2)	32 (1.1)	-	2 (1.7)	-
Cyprus	22 (1.0)	-	15 (0.6)	-	8 (1.2)	35 (1.1)	-	25 (0.8)	-	-
Estonia	31 (1.4) △	18 (1.1)	14 (0.9)	**13** (1.7)	16 (1.6)	43 (1.3) △	29 (1.1)	25 (0.9)	**14** (1.7)	**4** (1.5)
France	21 (0.9) ▽	-	-	-	-	35 (1.1)	-	-	-	-
Italy	19 (1.0) ▽	12 (0.7)	15 (0.7)	**8** (1.2)	4 (1.3)	36 (1.1)	28 (0.9)	24 (0.9)	**8** (1.4)	**4** (1.3)
Latvia[1]	30 (0.9) △	21 (0.9)	22 (1.0)	**9** (1.3)	8 (1.4)	43 (1.1) △	25 (0.9)	29 (1.0)	**17** (1.4)	**-4** (1.3)
Lithuania	38 (1.0) ▲	18 (0.9)	13 (0.6)	**19** (1.4)	24 (1.2)	49 (1.1) ▲	34 (1.0)	25 (0.8)	**15** (1.5)	**9** (1.3)
Malta	24 (1.4)	20 (0.7)	16 (1.0)	**4** (1.5)	8 (1.7)	37 (1.7)	36 (0.7)	26 (1.0)	1 (1.8)	**10** (1.2)
Netherlands†	14 (0.9) ▽	9 (0.6)	-	**5** (1.1)	-	25 (1.3) ▼	17 (0.9)	-	**8** (1.5)	-
Norway (9)[1]	21 (0.9) ▽	12 (0.5)	13 (0.8)	**10** (1.0)	9 (1.2)	37 (0.7)	23 (0.7)	20 (1.1)	**14** (1.0)	**3** (1.2)
Poland	36 (1.0) ▲	-	14 (0.8)	-	22 (1.3)	44 (1.0) △	-	22 (0.9)	-	22 (1.3)
Romania	21 (0.8) ▽	-	-	-	-	34 (1.1) ▽	-	-	-	-
Serbia	18 (0.9) ▽	-	-	-	-	29 (1.1) ▽	-	-	-	-
Slovak Republic	26 (1.1) △	-	14 (0.9)	-	12 (1.4)	39 (1.2) △	-	24 (0.9)	-	-
Slovenia	13 (0.8) ▼	8 (0.7)	7 (0.6)	**5** (1.1)	6 (1.0)	29 (1.0) ▽	27 (1.1)	23 (0.9)	2 (1.5)	**4** (1.4)
Spain	16 (0.9) ▽	-	7 (0.6)	-	9 (1.1)	34 (1.0) ▽	-	16 (0.8)	-	-
Sweden[1]	26 (0.9) △	22 (1.1)	10 (0.7)	**5** (1.5)	16 (1.1)	41 (1.0) △	32 (1.3)	15 (0.8)	**9** (1.6)	**17** (1.5)
ICCS 2022 average	24 (0.2)	-	-	-	-	36 (0.2)	-	-	-	-
ICCS 2016/2022 average	24 (0.3)	15 (0.2)	-	**9** (0.4)	-	37 (0.3)	28 (0.3)	-	**9** (0.4)	-
ICCS 2009/2022 average	25 (0.3)	-	14 (0.2)	-	**11** (0.3)	38 (0.3)	-	24 (0.2)	-	**14** (0.4)
Countries not meeting sample participation requirements										
Brazil	34 (1.1)	-	-	-	-	36 (0.9)	-	-	-	-
Denmark	29 (1.1)	-	-	-	-	46 (1.2)	-	-	-	-
German benchmarking participant meeting sample participation requirements										
North Rhine-Westphalia	33 (1.1) △	-	-	-	-	46 (1.1) △	-	-	-	-
German benchmarking participant not meeting sample participation requirements										
Schleswig-Holstein	34 (1.7)	-	-	-	-	45 (2.0)	-	-	-	-

Notes:
Statistically signficiant changes ($p < 0.05$) since 2009 and 2016 are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

Table 4.7 National average scale scores indicating students' discussion of political or social issues outside school by socioeconomic background, students' interest, and level of civic knowledge

Country	Scale score by socioeconomic background: Below country average	Scale score by socioeconomic background: At or above country average	Scale score by students' interest: Not interested in civic issues	Scale score by students' interest: Quite or very interested in civic issues	Scale score by level of civic knowledge: Civic knowledge below Level B (below 479)	Scale score by level of civic knowledge: Civic knowledge at or above Level B (479 and above)
Bulgaria	51 (0.4)	**53** (0.3)	50 (0.2)	**57** (0.4)	51 (0.3)	**53** (0.3)
Chinese Taipei	53 (0.3)	**55** (0.3)	51 (0.2)	**59** (0.3)	51 (0.7)	**54** (0.2)
Colombia	52 (0.3)	**54** (0.2)	50 (0.2)	**56** (0.3)	53 (0.4)	53 (0.3)
Croatia[1]	53 (0.3)	**54** (0.3)	52 (0.2)	**58** (0.3)	53 (0.4)	**54** (0.2)
Cyprus	54 (0.3)	**54** (0.3)	52 (0.2)	**60** (0.4)	53 (0.3)	**55** (0.3)
Estonia	53 (0.3)	**56** (0.4)	52 (0.2)	**60** (0.3)	53 (0.4)	**56** (0.3)
France	53 (0.3)	**55** (0.3)	51 (0.2)	**58** (0.3)	53 (0.4)	**54** (0.2)
Italy	54 (0.3)	**56** (0.3)	52 (0.2)	**60** (0.2)	54 (0.3)	**56** (0.2)
Latvia[1]	53 (0.3)	**56** (0.3)	53 (0.2)	**60** (0.4)	53 (0.3)	**56** (0.3)
Lithuania	56 (0.3)	**59** (0.2)	55 (0.2)	**61** (0.3)	55 (0.3)	**58** (0.2)
Malta	52 (0.4)	**55** (0.6)	51 (0.3)	**59** (0.6)	53 (0.4)	**55** (0.6)
Netherlands†	51 (0.4)	**54** (0.3)	51 (0.2)	**58** (0.4)	50 (0.4)	**53** (0.3)
Norway (9)[1]	53 (0.2)	**55** (0.2)	52 (0.1)	**59** (0.2)	53 (0.3)	**55** (0.2)
Poland	55 (0.2)	**57** (0.3)	53 (0.2)	**60** (0.2)	54 (0.4)	**57** (0.2)
Romania	52 (0.3)	**54** (0.4)	51 (0.3)	**57** (0.4)	52 (0.3)	53 (0.5)
Serbia	50 (0.3)	**52** (0.3)	49 (0.3)	**58** (0.5)	50 (0.3)	**52** (0.3)
Slovak Republic	54 (0.3)	**55** (0.3)	53 (0.2)	**60** (0.4)	54 (0.4)	55 (0.2)
Slovenia	50 (0.2)	**52** (0.2)	50 (0.2)	**56** (0.4)	50 (0.3)	**52** (0.2)
Spain	53 (0.2)	**55** (0.2)	52 (0.2)	**58** (0.3)	53 (0.3)	**54** (0.2)
Sweden[1]	54 (0.3)	**56** (0.3)	52 (0.2)	**60** (0.2)	53 (0.4)	**56** (0.2)
ICCS 2022 average	53 (0.1)	**55** (0.1)	52 (0.1)	**59** (0.1)	53 (0.1)	**55** (0.1)
Countries not meeting sample participation requirements						
Brazil	52 (0.3)	**55** (0.3)	50 (0.2)	**58** (0.3)	52 (0.3)	**55** (0.3)
Denmark	55 (0.3)	**58** (0.2)	54 (0.2)	**61** (0.2)	55 (0.4)	**58** (0.2)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	57 (0.3)	**59** (0.3)	55 (0.2)	**61** (0.3)	56 (0.4)	**58** (0.2)
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	56 (0.5)	**59** (0.3)	54 (0.3)	**61** (0.3)	56 (0.6)	**58** (0.3)

Notes:

Score averages which are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.

(9) Country deviated from international defined population and surveyed adjacent upper grade.

† Nearly met guidelines for sampling participation rates only after replacement schools were included.

[1] National defined population covers 90% to 95% of national target population.

Difference between comparison groups statistically significant at $p < 0.05$.

Difference between comparison groups not statistically significant at $p < 0.05$.

political or social issues outside school and gender (albeit with very small differences in a few countries) and these data have not been included in the table.

However, in every country there was a strong positive association between students' discussions of political or social issues outside school and interest in social and political issues. On average the difference in students' discussions of political or social issues outside school between the two interest groups was about seven points (equivalent to more than two thirds of a standard deviation). The largest difference was in Serbia (almost nine points) and the smallest difference was in Spain (less than six points).

There was a smaller association of students' discussions of political or social issues outside school with civic knowledge. On average across ICCS countries, the difference between the two civic knowledge groups was just under two (1.8) scale points. The largest difference was in the Netherlands (3.3 scale points) and the smallest difference was in Romania (0.6 scale points). There was also a small but consistent association of students' discussions of political or social issues outside school with socioeconomic background. On average, across ICCS countries, students of above average socioeconomic background scored just under two scale points higher than students of below average socioeconomic background.

4.3.7 Students' Engagement with Civic Issues Through Digital Media

ICCS 2022 asked students how often ("never or hardly ever," "monthly (at least once a month)," "weekly (at least once a week)," or "daily or almost daily") they used digital media in the following ways for civic engagement: "Posting your own content about a political or social issue on the internet or social media"; "sharing content about a political or social issue posted by someone else"; "commenting on an online post about a political or social issue"; and "liking an online post about a political or social issue."

On average across ICCS countries, there was little use of digital media for these aspects of engagement with civic issues (Table 4.8). The most frequent aspect of civic engagement was "liking an online post about a political or social issue" which was reported by 24% of students on at least a weekly basis. The other three forms of civic engagement (posting, commenting on, or sharing content) attracted fewer than 10% of students.

The four items were used to derive a scale measuring students' use of digital media for civic engagement, which had satisfactory reliability (Cronbach's alpha = 0.74). Examining the average scores on the scale showed relatively little variation, being from 48 to 52 scale points. We also compared scores of students' use of digital media for civic engagement by gender, student interest in social and political issues, and civic knowledge (Table 4.9). On average across ICCS countries, it appeared there were no significant associations between students' use of digital media for civic engagement and gender (albeit with slightly higher scores for female students compared to male students in Colombia, Italy, Malta, the Netherlands, Norway, Poland, Sweden, and North Rhine-Westphalia).

In every country there was a strong positive association between students' use of digital media for civic engagement and interest in social and political issues. On average across ICCS countries, the difference between students not interested in civic issues and those quite or very interested in civic issues was more than six scale points. The differences ranged from about four points in Croatia to almost eight points in Malta and Serbia.

In most participating countries, there was a small negative association between students' use of digital media for civic engagement and civic knowledge. On average, the scale scores reflecting use of digital media for civic engagement for students with civic knowledge below Level B were almost two scale points higher than the scores for those with civic knowledge at or above Level B. The smallest difference was close to zero in the Netherlands and the largest was nearly four scale points in the Slovak Republic.

4.3.8 Students' Participation in Community Groups or Organizations

Earlier in this chapter, we highlighted in the discussion of civic engagement that students in lower-secondary education may have limited access to many forms of citizenship participation in society. However, there is evidence of links between youth participation and later engagement as adult citizens (Verba et al., 1995). Our review of research literature drew attention to the argument that student participation in community groups and organizations supported the development of knowledge and skills for active citizenship (Schulz et al., 2023). Research evidence has suggested that schools' interactions with their local communities and civic-related institutions could be viewed as influencing student perceptions of their relationship with the wider community and their roles in those communities (see, for example, Torney-Purta & Barber, 2004). ICCS 2009 and

Table 4.8 National percentages and scale scores for students' civic engagement with digital media

Country	Percentages of students who report to do this at least once a week: Liking an online post about a political or social issue (%)			Commenting on an online post about a political or social issue (%)			Sharing content about a political or social issue posted by someone else (%)			Posting your own content about a political or social issue on the internet or social media (%)			Average scale scores indicating students' engagement with political or social issues using digital media		
Bulgaria	22	(0.9)		11	(0.8)	△	9	(0.8)	△	9	(0.8)	△	51	(0.3)	△
Chinese Taipei	21	(0.8)	▽	9	(0.5)		9	(0.5)	△	10	(0.6)	△	50	(0.2)	▽
Colombia	26	(1.2)	△	13	(0.8)	△	13	(0.8)	△	11	(0.7)	△	52	(0.3)	△
Croatia[1]	16	(0.8)	▽	5	(0.5)	▽	5	(0.4)	▽	3	(0.3)	▽	48	(0.2)	▽
Cyprus	28	(0.9)	△	14	(0.7)	△	11	(0.7)	△	9	(0.6)	△	52	(0.2)	△
Estonia	19	(1.0)	▽	4	(0.4)	▽	5	(0.4)	▽	3	(0.4)	▽	48	(0.2)	▽
France	26	(0.8)	△	9	(0.6)		6	(0.4)		5	(0.5)	▽	50	(0.2)	
Italy	33	(0.9)	△	9	(0.5)		8	(0.6)		4	(0.5)	▽	51	(0.2)	△
Latvia[1]	23	(0.9)		6	(0.4)	▽	7	(0.5)		5	(0.4)	▽	49	(0.2)	▽
Lithuania	26	(0.9)	△	9	(0.7)		9	(0.6)	△	6	(0.5)		51	(0.2)	△
Malta	28	(1.4)	△	10	(0.7)	△	10	(0.9)	△	5	(0.7)		51	(0.3)	
Netherlands†	24	(1.1)		7	(0.7)		4	(0.5)	▽	4	(0.5)	▽	50	(0.3)	
Norway (9)[1]	21	(0.7)	▽	5	(0.3)	▽	4	(0.3)	▽	5	(0.3)	▽	49	(0.2)	▽
Poland	30	(0.9)	△	9	(0.5)		5	(0.4)	▽	4	(0.3)	▽	51	(0.2)	△
Romania	28	(1.0)	△	9	(1.3)		9	(0.9)		6	(0.7)		51	(0.4)	△
Serbia	19	(1.1)	▽	8	(0.6)		7	(0.6)		6	(0.6)		49	(0.3)	▽
Slovak Republic	26	(1.0)	△	9	(0.8)		7	(0.5)		7	(0.6)	△	50	(0.3)	
Slovenia	12	(0.6)	▼	7	(0.5)	▽	6	(0.4)	▽	5	(0.4)		48	(0.2)	▽
Spain	22	(0.8)		8	(0.5)		7	(0.6)		6	(0.5)		50	(0.2)	
Sweden[1]	24	(1.0)		-			5	(0.4)	▽	3	(0.5)	▽	50	(0.2)	
ICCS 2022 average	24	(0.2)		8	(0.2)		7	(0.1)		6	(0.1)		50	(0.1)	
Countries not meeting sample participation requirements															
Brazil	43	(1.2)		20	(0.7)		18	(0.7)		12	(0.5)		55	(0.3)	
Denmark	22	(1.0)		5	(0.4)		4	(0.4)		3	(0.3)		49	(0.2)	
German benchmarking participant meeting sample participation requirements															
North Rhine-Westphalia	31	(1.2)	△	9	(0.6)		10	(0.7)	△	5	(0.4)	▽	52	(0.2)	△
German benchmarking participant not meeting sample participation requirements															
Schleswig-Holstein	31	(1.4)		8	(0.8)		9	(1.0)		4	(0.6)		51	(0.3)	

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 10 percentage or 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points or 3 score points below ICCS 2022

Table 4.9 National average scale scores indicating students' engagement with political or social issues using digital media by gender, students' interest, and level of civic knowledge

Country	Scale score average by gender group: Male students	Scale score average by gender group: Female students	Scale score average by students' interest: Not interested in civic issues	Scale score average by students' interest: Quite or very interested in civic issues	Scale score average by level of civic knowledge: Civic knowledge below Level B (below 479)	Scale score average by level of civic knowledge: Civic knowledge at or above Level B (479 and above)
Bulgaria	51 (0.5)	50 (0.3)	49 (0.3)	**56** (0.6)	**52** (0.5)	49 (0.3)
Chinese Taipei	**50** (0.3)	49 (0.2)	47 (0.2)	**54** (0.4)	**51** (0.6)	49 (0.2)
Colombia	51 (0.3)	**52** (0.4)	48 (0.3)	**56** (0.4)	**52** (0.5)	51 (0.3)
Croatia[1]	48 (0.3)	48 (0.2)	47 (0.2)	**51** (0.4)	**49** (0.4)	47 (0.2)
Cyprus	52 (0.4)	52 (0.2)	50 (0.2)	**58** (0.5)	**53** (0.3)	51 (0.4)
Estonia	48 (0.3)	48 (0.3)	47 (0.2)	**52** (0.3)	**49** (0.5)	48 (0.3)
France	49 (0.3)	50 (0.3)	48 (0.2)	**53** (0.3)	**51** (0.4)	49 (0.2)
Italy	51 (0.2)	**52** (0.3)	49 (0.2)	**55** (0.3)	**52** (0.5)	51 (0.2)
Latvia[1]	49 (0.3)	50 (0.3)	48 (0.2)	**54** (0.4)	**50** (0.3)	49 (0.2)
Lithuania	50 (0.4)	51 (0.2)	49 (0.2)	**54** (0.4)	**52** (0.4)	50 (0.2)
Malta	50 (0.4)	**52** (0.3)	48 (0.3)	**56** (0.5)	**52** (0.4)	50 (0.4)
Netherlands†	49 (0.4)	**50** (0.3)	48 (0.3)	**55** (0.5)	50 (0.5)	50 (0.3)
Norway (9)[1]	48 (0.2)	**49** (0.2)	47 (0.1)	**53** (0.3)	**49** (0.3)	49 (0.2)
Poland	50 (0.3)	**51** (0.2)	48 (0.2)	**54** (0.3)	50 (0.4)	51 (0.2)
Romania	51 (0.7)	52 (0.3)	49 (0.5)	**56** (0.5)	**52** (0.5)	50 (0.3)
Serbia	**50** (0.4)	49 (0.3)	48 (0.3)	**56** (0.6)	**50** (0.4)	48 (0.3)
Slovak Republic	50 (0.3)	51 (0.3)	49 (0.2)	**55** (0.6)	**53** (0.5)	49 (0.3)
Slovenia	**48** (0.3)	47 (0.2)	46 (0.2)	**52** (0.6)	**49** (0.3)	47 (0.3)
Spain	50 (0.3)	50 (0.3)	48 (0.2)	**54** (0.4)	**51** (0.4)	49 (0.3)
Sweden[1]	49 (0.3)	**51** (0.3)	48 (0.2)	**54** (0.3)	**51** (0.5)	50 (0.2)
ICCS 2022 average	50 (0.1)	**50** (0.1)	48 (0.1)	**54** (0.1)	**51** (0.1)	49 (0.1)
Countries not meeting sample participation requirements						
Brazil	54 (0.4)	**56** (0.4)	52 (0.3)	**59** (0.4)	55 (0.3)	55 (0.4)
Denmark	48 (0.2)	**50** (0.2)	47 (0.2)	**53** (0.3)	**50** (0.4)	49 (0.2)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	51 (0.3)	**53** (0.3)	50 (0.3)	**54** (0.3)	**53** (0.5)	51 (0.3)
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	50 (0.4)	**52** (0.5)	49 (0.4)	**54** (0.5)	52 (0.8)	51 (0.4)

Notes:
Score averages which are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups not statistically significant at $p < 0.05$.

2016 showed that most students in almost all the participating countries had at least some opportunities to participate in such activities (Schulz et al., 2010, 2018). ICCS 2022 collected data indicating participation in several types of community groups or organizations (Table 4.10).

ICCS asked students to indicate their participation ("yes, I have done this within the last twelve months," "yes, I have done this but more than a year ago," or "no, I have never done this") in different types of groups or organizations in the community. In this chapter we report on the following three types of community group participation across countries and in comparison with previous cycles: "A youth organization affiliated with a political party or union"; "a voluntary group doing something to help the local community"; and "a religious group or organization."

On average in ICCS 2022, the highest percentage was observed for participation in a voluntary group doing something to help the local community (37%), followed by engagement in a religious group or organization (33%) (Table 4.10). We recorded the lowest percentage (10%) for participation in a youth organization affiliated with a political party or union. There has been little change in these levels of participation in comparison with the previous surveys in 2016 and 2009. In ICCS 2022, participation in a youth organization affiliated with a political party or union was most frequently reported in Colombia (21%).

In ICCS 2022, Bulgaria, Cyprus, Poland, and Romania recorded participation rates for voluntary groups helping communities that were significantly different from, and 10 percentage points higher than, the international average. In Chinese Taipei, Norway, and Sweden national percentages for this type of engagement were significantly different from, and 10 percentage points lower than, the international average.

In ICCS 2022, Colombia, Croatia, Italy, Malta, and Slovenia recorded participation rates for religious groups or organizations that were significantly different from, and more than 10 percentage points higher than, the international average. In Bulgaria, Chinese Taipei, Estonia and Latvia students' levels of engagement in religious groups or organizations were more than 10 percentage points lower than the international average.

4.3.9 Students' Participation in School Civic-Related Activities

Having been part of civic-related activities at school has been suggested as an important factor influencing future citizenship engagement (Pancer, 2015). Current or past involvement in civic activities at school and school governance has the potential for shaping different civic-related learning outcomes. This view has been supported by several research publications emphasizing the importance of students' experience at school for developing a sense of power to influence matters in the community and the contribution of more democratic forms of school governance to higher levels of political engagement (Pasek et al., 2008). As in previous survey cycles, ICCS 2022 included questions about a wide range of civic-related participation at school (for example, participation in school councils/parliaments, or in student debates) and results showed that majorities of students reported past or current participation in many of these activities at school. The findings further suggested positive relationships with civic knowledge and engagement (Schulz et al., 2010, 2018).

In this chapter we present findings on student reported participation ("yes, I have done this within the last twelve months," "yes, I have done this but more than a year ago," or "no, I have never done this") in the following three types of civic-related school activity: "Voting for class representative or school parliament/ council"; "taking part in decision-making about how the school is run"; and "becoming a candidate for class representative or school parliament/council."

On average, in ICCS 2022, among these three types of engagement the highest percentage was recoded for "voting for class representative or school parliament/council" (78%), followed by "becoming a candidate for class representative or school parliament/council" (47%) and "taking part in decision-making about how the school is run" (40%) (Table 4.11). We observed slight changes (ranging from two or three percentage points) between 2016 and 2022 in the percentages participating in all three forms of civic participation at school. The largest decline (three percentage points on average) was recorded for voting for class representative or school parliament/council.

In ICCS 2022, Chinese Taipei, Colombia, Croatia, France, Poland, and Spain recorded the highest percentages for "voting for class representative or school parliament/council," results that were significantly different from, and more than 10 percentage points higher than, the international average. Students in Bulgaria, Estonia, Italy, Latvia, and the Netherlands reported percentages for voting for class representative that were significantly different from, and more than 10 percentage points lower than, the average.

In ICCS 2022, students in Chinese Taipei, Croatia, Cyprus, and Serbia had the highest percentages for "becoming a candidate for class representative or school parliament/council," results that were significantly different from, and more than 10 percentage points higher than, the average. Students in Bulgaria, Estonia, Italy, Latvia, and the Netherlands reported the

Table 4.10 Students' participation in selected organizations and groups in the community

Country	Percentages of students who report to have participated in:														
	A voluntary group doing something to help the local community					A religious group or organization					A youth organization affiliated with a political party or union				
	2022	2016	2009	Difference (2022–2016)	Difference (2022–2009)	2022	2016	2009	Difference (2022–2016)	Difference (2022–2009)	2022	2016	2009	Difference (2022–2016)	Difference (2022–2009)
Bulgaria	48 (1.2) ▲	50 (1.3)	37 (1.3)	-2 (1.8)	**11** (1.8)	21 (1.0) ▼	18 (1.2)	17 (1.0)	3 (1.6)	**4** (1.5)	14 (1.1) △	10 (0.9)	9 (0.7)	**4** (1.5)	**5** (1.3)
Chinese Taipei	25 (1.0) ▼	26 (1.0)	20 (0.7)	-1 (1.4)	**5** (1.2)	21 (0.8) ▼	24 (0.9)	30 (0.8)	**-3** (1.2)	**-8** (1.2)	3 (0.3) ▽	2 (0.2)	4 (0.3)	**1** (0.4)	-1 (0.4)
Colombia	45 (1.0) △	54 (1.1)	57 (0.8)	**-10** (1.5)	**-12** (1.3)	52 (1.1) ▲	54 (1.0)	58 (1.1)	-2 (1.5)	**-6** (1.6)	21 (1.0) △	12 (0.6)	14 (0.6)	**10** (1.2)	**7** (1.2)
Croatia[1]	28 (1.5) ▽	30 (1.6)	-	-2 (2.2)	-	46 (1.4) ▲	37 (1.3)	-	**9** (1.9)	-	5 (0.5) ▽	4 (0.4)	-	**1** (0.6)	-
Cyprus	48 (1.1) ▲	-	26 (1.0)	-	**23** (1.5)	32 (1.0)	-	53 (0.8)	-	**-21** (1.3)	16 (0.8) △	-	18 (0.7)	-	**-3** (1.1)
Estonia	35 (1.5)	43 (1.3)	44 (1.3)	**-8** (2.0)	**-9** (2.0)	10 (0.7) ▼	9 (0.7)	10 (0.8)	2 (1.0)	0 (1.1)	11 (0.8)	10 (0.7)	9 (0.8)	1 (1.1)	2 (1.1)
France	33 (1.0) ▽	-	-	-	-	-	-	-	-	-		-	-	-	-
Italy	28 (1.2) ▽	32 (1.0)	23 (1.0)	**-4** (1.6)	**5** (1.5)	43 (1.7) ▲	34 (1.1)	40 (1.2)	**9** (2.1)	3 (2.1)	6 (0.6) ▽	6 (0.5)	5 (0.4)	0 (0.8)	1 (0.7)
Latvia[1]	38 (1.1)	42 (1.4)	38 (1.2)	**-4** (1.8)	-1 (1.7)	19 (0.8) ▼	13 (0.7)	17 (1.1)	**5** (1.1)	1 (1.3)	12 (0.7) △	15 (0.9)	9 (0.8)	**-3** (1.1)	**3** (1.1)
Lithuania	45 (1.7) △	42 (1.3)	23 (0.9)	4 (2.1)	**22** (1.9)	26 (1.3) ▽	22 (1.0)	22 (0.9)	**5** (1.7)	**4** (1.6)	16 (0.8) △	19 (1.1)	11 (0.6)	**-3** (1.3)	**5** (1.0)
Malta	46 (1.6) △	46 (0.9)	36 (1.3)	0 (1.9)	**9** (2.1)	58 (2.5) ▲	64 (1.0)	63 (1.8)	**-6** (2.7)	-5 (3.1)	15 (1.0) △	17 (0.7)	14 (0.9)	-1 (1.2)	1 (1.3)
Netherlands†	31 (1.1) ▽	30 (1.3)	-	1 (1.7)	-	-	14 (1.0)	-	-	-	8 (0.6) ▽	4 (0.4)	-	**4** (0.7)	-
Norway (9)[1]	24 (0.8) ▼	32 (0.9)	20 (0.9)	**-8** (1.2)	**4** (1.2)	32 (1.1)	28 (1.2)	31 (1.7)	**4** (1.6)	1 (2.0)	10 (0.5)	10 (0.5)	9 (0.6)	0 (0.7)	1 (0.8)
Poland	59 (1.5) ▲	-	36 (1.3)	-	**23** (2.0)	30 (1.2) ▽	-	42 (1.2)	-	**-12** (1.7)	5 (0.5) ▽	-	4 (0.4)	-	0 (0.6)
Romania	55 (2.4) ▲	-	-	-	-	29 (3.0)	-	-	-	-	12 (1.6)	-	-	-	-
Serbia	27 (1.0) ▽	-	-	-	-	33 (1.4)	-	-	-	-	8 (0.7) ▽	-	-	-	-
Slovak Republic	37 (1.4)	-	27 (1.3)	-	**9** (1.9)	33 (1.4)	-	32 (1.7)	-	1 (2.2)	8 (0.7) ▽	-	6 (0.6)	-	**2** (1.0)
Slovenia	33 (1.0) ▽	31 (1.1)	24 (1.0)	2 (1.5)	**9** (1.4)	46 (1.2) ▲	36 (1.1)	43 (1.3)	**10** (1.6)	3 (1.7)	9 (0.5) ▽	5 (0.6)	6 (0.5)	**4** (0.8)	**3** (0.7)
Spain	36 (1.0)	-	26 (0.9)	-	**10** (1.4)	31 (1.2)	-	32 (1.3)	-	-1 (1.8)	8 (0.6) ▽	-	5 (0.5)	-	**3** (0.8)
Sweden[1]	14 (0.7) ▼	16 (0.9)	14 (0.7)	-2 (1.1)	0 (1.0)	32 (1.0)	22 (1.0)	24 (1.0)	**10** (1.4)	**8** (1.4)	6 (0.5) ▽	5 (0.5)	7 (0.5)	0 (0.7)	-1 (0.7)
ICCS 2022 average	37 (0.3)	-	-	-	-	33 (0.3)	-	-	-	-	10 (0.2)	-	-	-	-
ICCS 2022/2016 average	34 (0.3)	36 (0.3)	-	**-3** (0.5)	-	34 (0.4)	29 (0.3)	-	**5** (0.5)	-	11 (0.2)	9 (0.2)	-	**1** (0.3)	-
ICCS 2022/2009 average	37 (0.3)	-	30 (0.3)	-	**7** (0.4)	32 (0.3)	-	34 (0.3)	-	**-2** (0.5)	11 (0.2)	-	9 (0.2)	-	**2** (0.2)
Countries not meeting sample participation requirements															
Brazil	42 (1.2)	-	-	-	-	64 (0.9)	-	-	-	-	12 (0.5)	-	-	-	-
Denmark	35 (1.1)	-	-	-	-	29 (1.3)	-	-	-	-	10 (0.6)	-	-	-	-
German benchmarking participant meeting sample participation requirements															
North Rhine-Westphalia	30 (0.8) ▽	-	-	-	-	42 (1.2) △	-	-	-	-	10 (0.5)	-	-	-	-
German benchmarking participant not meeting sample participation requirements															
Schleswig-Holstein	35 (1.8)	-	-	-	-	41 (1.7)	-	-	-	-	11 (0.8)	-	-	-	-

Notes:
Statistically signficiant changes ($p < 0.05$) since 2009 and 2016 are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

Table 4.11 Students' participation in civic activities at school

Country	Percentages of students who report to have participated in:														
	Voting for class representative or school parliament/council					Becoming a candidate for class representative or school parliament/council					Taking part in decision-making about how the school is run				
	2022	2016	2009	Difference (2022–2016)	Difference (2022–2009)	2022	2016	2009	Difference (2022–2016)	Difference (2022–2009)	2022	2016	2009	Difference (2022–2016)	Difference (2022–2009)
Bulgaria	52 (1.7) ▼	56 (1.7)	52 (1.9)	-4 (2.4)	1 (2.5)	34 (1.2) ▼	37 (1.3)	34 (1.1)	-3 (1.8)	0 (1.6)	30 (1.1) ▽	32 (1.2)	31 (1.2)	-2 (1.6)	-1 (1.6)
Chinese Taipei	91 (0.6) ▲	72 (0.8)	67 (0.9)	19 (1.0)	23 (1.1)	75 (0.9) ▲	34 (0.9)	32 (0.9)	42 (1.3)	43 (1.3)	53 (1.1) △	43 (0.8)	43 (0.7)	10 (1.4)	9 (1.3)
Colombia	89 (0.8) ▲	90 (0.8)	90 (0.5)	-1 (1.1)	-1 (1.0)	43 (1.0) ▽	42 (1.1)	44 (0.8)	1 (1.5)	-1 (1.3)	54 (0.9) △	49 (1.0)	57 (0.9)	5 (1.4)	-2 (1.3)
Croatia[1]	93 (0.5) ▲	91 (0.6)	-	2 (0.8)	-	63 (1.1) ▲	58 (1.1)	-	5 (1.6)	-	22 (1.1) ▼	20 (1.0)	-	2 (1.5)	-
Cyprus	81 (0.8) △	-	71 (0.8)	-	10 (1.2)	70 (0.8) ▲	-	67 (1.0)	-	3 (1.3)	46 (0.9) △	-	35 (1.2)	-	11 (1.5)
Estonia	60 (2.3) ▼	74 (1.7)	75 (1.8)	-14 (2.9)	-14 (2.9)	26 (1.5) ▼	30 (1.2)	32 (1.5)	-3 (2.0)	-5 (2.1)	29 (1.5) ▼	29 (1.0)	24 (1.2)	1 (1.8)	5 (1.9)
France	96 (0.4) ▲	-	-	-	-	50 (0.9) △	-	-	-	-	37 (0.8) ▽	-	-	-	-
Italy	53 (3.8) ▼	50 (2.5)	49 (2.3)	3 (4.6)	5 (4.4)	24 (2.5) ▼	22 (1.6)	21 (1.3)	2 (3.0)	3 (2.8)	39 (1.7)	36 (1.2)	34 (1.5)	3 (2.1)	5 (2.3)
Latvia[1]	51 (1.6) ▼	62 (2.0)	67 (2.5)	-12 (2.6)	-17 (3.0)	27 (1.1) ▼	34 (1.3)	39 (1.6)	-7 (1.7)	-12 (2.0)	29 (1.1) ▼	30 (1.3)	31 (1.3)	-1 (1.7)	-2 (1.7)
Lithuania	84 (1.0) △	89 (0.8)	84 (0.9)	-5 (1.3)	0 (1.3)	43 (1.0) ▽	47 (1.3)	30 (1.1)	-4 (1.6)	13 (1.5)	44 (1.3) △	43 (1.5)	35 (1.1)	1 (1.9)	9 (1.7)
Malta	75 (3.4)	78 (0.7)	62 (1.2)	-4 (3.4)	12 (3.6)	40 (2.2) ▽	48 (0.8)	24 (0.9)	-8 (2.3)	17 (2.3)	44 (1.3) △	42 (0.8)	29 (1.0)	2 (1.6)	15 (1.7)
Netherlands†	47 (2.0) ▼	51 (2.3)	-	-4 (3.0)	-	24 (1.1) ▼	21 (1.3)	-	3 (1.7)	-	30 (1.2) ▽	27 (1.0)	-	3 (1.6)	-
Norway (9)[1]	86 (0.6) △	93 (0.4)	90 (0.8)	-7 (0.8)	-4 (1.0)	51 (0.8) △	58 (0.8)	59 (1.0)	-7 (1.1)	-8 (1.3)	62 (0.8) △	59 (0.9)	56 (1.1)	3 (1.2)	6 (1.4)
Poland	95 (0.4) ▲	-	95 (0.5)	-	0 (0.6)	57 (1.1) △	-	59 (0.9)	-	-2 (1.4)	41 (1.1)	-	57 (1.1)	-	-16 (1.6)
Romania	86 (1.9) △	-	-	-	-	47 (3.4)	-	-	-	-	33 (2.0) ▽	-	-	-	-
Serbia	86 (0.9) △	-	-	-	-	58 (1.3) ▲	-	-	-	-	26 (1.1) ▼	-	-	-	-
Slovak Republic	71 (1.7) ▽	-	73 (2.3)	-	-2 (2.9)	44 (1.4) ▽	-	43 (1.5)	-	1 (2.1)	37 (1.3) ▽	-	28 (1.2)	-	10 (1.8)
Slovenia	79 (0.9)	84 (0.8)	84 (0.8)	-5 (1.2)	-5 (1.2)	52 (1.0) △	59 (1.2)	59 (1.1)	-7 (1.6)	-7 (1.5)	30 (0.9) ▽	24 (0.9)	28 (1.2)	6 (1.2)	3 (1.4)
Spain	96 (0.5) ▲	-	87 (1.0)	-	9 (1.1)	55 (1.1) △	-	55 (1.2)	-	0 (1.6)	47 (1.2) △	-	48 (1.2)	-	0 (1.7)
Sweden[1]	83 (1.0) △	89 (0.8)	85 (0.9)	-6 (1.3)	-3 (1.4)	53 (1.2) △	47 (0.8)	40 (1.0)	6 (1.5)	12 (1.6)	63 (1.2) △	64 (0.9)	54 (1.1)	-1 (1.5)	9 (1.6)
ICCS 2022 average	78 (0.4)	-	-	-	-	47 (0.3)	-	-	-	-	40 (0.3)	-	-	-	-
ICCS 2022/2016 average	73 (0.5)	75 (0.4)	-	-3 (0.6)	-	43 (0.4)	41 (0.3)	-	2 (0.5)	-	41 (0.3)	38 (0.3)	-	2 (0.4)	-
ICCS 2022/2009 average	76 (0.4)	-	75 (0.4)	-	1 (0.6)	46 (0.3)	-	43 (0.3)	-	4 (0.5)	43 (0.3)	-	39 (0.3)	-	4 (0.4)
Countries not meeting sample participation requirements															
Brazil	65 (1.8)	-	-	-	-	32 (1.2)	-	-	-	-	40 (1.2)	-	-	-	-
Denmark	82 (1.2)	-	-	-	-	51 (1.1)	-	-	-	-	51 (1.2)	-	-	-	-
German benchmarking participant meeting sample participation requirements															
North Rhine-Westphalia	88 (0.6) ▲	-	-	-	-	65 (1.2) ▲	-	-	-	-	43 (1.1) △	-	-	-	-
German benchmarking participant not meeting sample participation requirements															
Schleswig-Holstein	91 (0.9)	-	-	-	-	69 (1.7)	-	-	-	-	48 (1.6)	-	-	-	-

Notes:
Statistically signficiant changes ($p < 0.05$) since 2009 and 2016 are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

relatively lowest proportions for "becoming a candidate for class representative or school parliament/council" (more than 10 percentage points below the average).

In Chinese Taipei, Colombia, Norway, and Sweden we recorded the highest proportions of students that reported "taking part in decision-making about how the school is run" (more than 10 percentage points higher than the ICCS 2022 average), while the results show the lowest percentages (more than 10 percentages points below the average) for Croatia, Estonia, Latvia, and Serbia.

We observed only a small change (about one percentage point on average) in participation in voting for a class representative from ICCS 2009 through 2016 to 2022, while there were increases in the percentages of students who reported becoming a candidate for class representative or taking part in decision-making at school between ICCS 2016 and 2022 (by about four percentage points.

4.4 Students' Expected Future Participation in Civic Activities

In its measurement of expected future civic engagement among lower-secondary students, ICCS 2022 distinguished between the following three types:

- Expectations of participating in future school-based civic activities;
- Expectations to participate in legal and illegal forms of civic action in support of, or in protest against, important issues; and
- Expectations of political participation as adults.

4.4.1 Expected Participation in Future School-Based Civic Activities

ICCS developed questions assessing students' beliefs about their expectations of undertaking future civic activities within the school context (for example, voting in school elections or engaging in a public debate about school-related issues), and results showed that students' willingness to become involved at school was higher among female students and students with more interest in civic issues (Schulz et al., 2018). ICCS 2022 continued to gather data on students' expectations of civic engagement at school with an identical item set as part of a question which asked students to rate how likely they found it to undertake different civic-related activities at school.

ICCS 2022 asked student to indicate their likelihood ("very likely," "quite likely," "not very likely," or "not at all likely") to engage in civic activities at school. This scale was based on four items: "Vote in a school election of class representatives or school parliament/council" (75% rated this as quite or very likely on average across countries); "join a group of students campaigning for an issue you agree with" (64%); "become a candidate for class representative or school parliament/council" (46%); and "take part in discussions in a student assembly/gathering" (52%). We used these items to derive a scale equated to the metric established in ICCS 2016.[4]

When comparing national average scale scores across countries, and with the previous cycle, we observed a slight decrease (1.3 scale points) between ICCS 2016 and 2022, across common countries, in students' willingness to participate in civic activities at school (Table 4.12). In ICCS 2022, Chinese Taipei, Colombia, and Romania recorded scores that were significantly different from, and more than three scale points higher than, the ICCS 2022 average, while students in Estonia and the Netherlands had the relatively lowest scores with more than three scale points below the average.

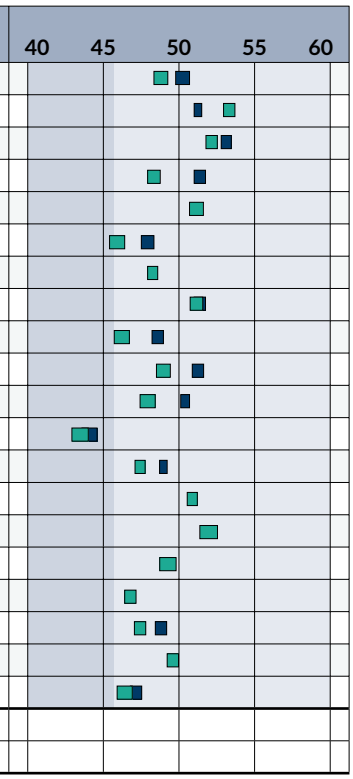
We compared national average scale scores indicating students' willingness to engage in school-based civic activities by gender groups, as well as by students' interest in social and political issues, and their level of civic knowledge (Table 4.13). On average, female students have somewhat higher scale scores than male students with a difference of almost two score points and there were statistically significant differences in most countries.

In all countries we observed consistent positive association between students' expected future participation in school-based civic activities and interest in social and political issues. On average, we found a difference in students' expected future participation in school-based civic activities between the two comparison groups of four points (equivalent to two fifths of a standard deviation). Across ICCS countries, the largest difference was recorded in Slovenia and Norway (more than six points) and the smallest difference in Cyprus (about three points).

[4]The resulting scale had an average reliability (Cronbach's alpha) across countries of 0.79.

Table 4.12 National average scale scores indicating students' willingness to participate in school activities

Country	2022	2016	Difference (2022–2016)
Bulgaria	49 (0.3)	50 (0.3)	**-1.4** (0.4)
Chinese Taipei	54 (0.2) ▲	51 (0.2)	**2.6** (0.3)
Colombia	53 (0.2) ▲	53 (0.2)	**-0.8** (0.4)
Croatia[1]	48 (0.3) ▽	52 (0.2)	**-3.4** (0.4)
Cyprus	52 (0.3) △	-	-
Estonia	46 (0.3) ▼	48 (0.3)	**-2.2** (0.4)
France	48 (0.2) ▽	-	-
Italy	52 (0.3) △	52 (0.2)	-0.1 (0.4)
Latvia[1]	46 (0.3) ▽	49 (0.2)	**-2.6** (0.4)
Lithuania	49 (0.3)	51 (0.2)	**-2.3** (0.4)
Malta	48 (0.3) ▽	50 (0.2)	**-2.6** (0.4)
Netherlands†	43 (0.3) ▼	44 (0.3)	-0.8 (0.5)
Norway (9)[1]	47 (0.2) ▽	49 (0.2)	**-1.6** (0.3)
Poland	51 (0.2) △	-	-
Romania	52 (0.4) ▲	-	-
Serbia	49 (0.3)	-	-
Slovak Republic	47 (0.2) ▽	-	-
Slovenia	47 (0.2) ▽	49 (0.2)	**-1.4** (0.4)
Spain	50 (0.2) △	-	-
Sweden[1]	46 (0.3) ▽	47 (0.2)	-0.7 (0.4)
ICCS 2022 average	49 (0.1)	-	-
ICCS 2016/2022 average	48 (0.1)	50 (0.1)	**-1.3** (0.1)
Countries not meeting sample participation requirements			
Brazil	52 (0.2)	-	-
Denmark	45 (0.2)	-	-
German benchmarking participant meeting sample participation requirements			
North Rhine-Westphalia	49 (0.3)	-	-
German benchmarking participant not meeting sample participation requirements			
Schleswig-Holstein	49 (0.3)	-	-



Notes:
Statistically signficiant changes ($p < 0.05$) since 2009 and 2016 are displayed in **bold**.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 3 score points below ICCS 2022 average

2022 average score +/- confidence interval
2016 average score +/- confidence interval

On average across items, students with a score in the range with this color have more than 50% probablity to indicate:

	Not very or not at all likely
	Very or quite likely

Table 4.13 National average scale scores indicating students' willingness to participate in school activities by gender, students' interest, and level of civic knowledge

Country	Scale score average by gender group: Male students	Scale score average by gender group: Female students	Scale score average by students' interest: Not interested in civic issues	Scale score average by students' interest: Quite or very interested in civic issues	Scale score average by level of civic knowledge: Civic knowledge below Level B (below 479)	Scale score average by level of civic knowledge: Civic knowledge at or above Level B (479 and above)
Bulgaria	48 (0.4)	**50** (0.3)	48 (0.3)	**51** (0.5)	48 (0.4)	**50** (0.4)
Chinese Taipei	54 (0.3)	54 (0.3)	53 (0.3)	**56** (0.3)	52 (0.8)	**54** (0.2)
Colombia	52 (0.3)	**53** (0.3)	50 (0.3)	**55** (0.3)	53 (0.3)	53 (0.3)
Croatia[1]	47 (0.3)	**50** (0.3)	47 (0.3)	**51** (0.5)	46 (0.6)	**49** (0.3)
Cyprus	50 (0.4)	**53** (0.3)	51 (0.3)	**54** (0.4)	50 (0.4)	**54** (0.4)
Estonia	44 (0.4)	**47** (0.4)	44 (0.3)	**48** (0.5)	44 (0.7)	**46** (0.4)
France	48 (0.3)	**49** (0.3)	47 (0.2)	**51** (0.3)	47 (0.5)	**49** (0.2)
Italy	50 (0.3)	**53** (0.4)	50 (0.3)	**54** (0.4)	49 (0.5)	**52** (0.3)
Latvia[1]	45 (0.4)	**47** (0.4)	45 (0.3)	**50** (0.5)	45 (0.4)	**47** (0.4)
Lithuania	48 (0.3)	**51** (0.4)	48 (0.3)	**52** (0.4)	48 (0.4)	**50** (0.4)
Malta	48 (0.4)	48 (0.5)	47 (0.3)	**51** (0.4)	48 (0.4)	48 (0.5)
Netherlands†	43 (0.4)	43 (0.5)	42 (0.4)	**47** (0.6)	43 (0.6)	42 (0.4)
Norway (9)[1]	47 (0.3)	**48** (0.2)	46 (0.2)	**51** (0.3)	48 (0.4)	47 (0.2)
Poland	50 (0.3)	**53** (0.2)	50 (0.2)	**53** (0.2)	50 (0.4)	**52** (0.2)
Romania	51 (0.5)	**54** (0.7)	52 (0.5)	**55** (0.4)	52 (0.5)	53 (0.6)
Serbia	48 (0.5)	**51** (0.4)	49 (0.4)	**54** (0.5)	48 (0.4)	**52** (0.5)
Slovak Republic	46 (0.3)	47 (0.4)	45 (0.2)	**51** (0.5)	46 (0.5)	**47** (0.4)
Slovenia	47 (0.3)	47 (0.3)	46 (0.2)	**52** (0.5)	46 (0.4)	**48** (0.3)
Spain	49 (0.3)	**51** (0.3)	49 (0.2)	**52** (0.4)	50 (0.4)	50 (0.3)
Sweden[1]	46 (0.4)	46 (0.4)	44 (0.3)	**49** (0.4)	46 (0.8)	46 (0.3)
ICCS 2022 average	48 (0.1)	**50** (0.1)	47 (0.1)	**52** (0.1)	48 (0.1)	**49** (0.1)
Countries not meeting sample participation requirements						
Brazil	51 (0.3)	**52** (0.3)	50 (0.2)	**54** (0.3)	51 (0.3)	**52** (0.3)
Denmark	45 (0.3)	**46** (0.3)	44 (0.2)	**48** (0.4)	44 (0.6)	**46** (0.3)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	48 (0.3)	**50** (0.4)	47 (0.3)	**51** (0.3)	48 (0.5)	49 (0.3)
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	48 (0.5)	**51** (0.4)	47 (0.4)	**52** (0.4)	48 (0.6)	**50** (0.4)

Notes:
Score averages which are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups not statistically significant at $p < 0.05$.

The results show a smaller and less consistent association for students' expectations to engage in school-based civic activities with their level of civic knowledge. In more than half of the participating countries there were statistically significant differences in favor of students with higher levels of civic knowledge. On average across ICCS countries, the difference between the two civic knowledge groups was more than one scale point, and the largest difference was observed in Cyprus (about four scale points).

4.4.2 Expected Expression of Opinions About Social and Political Issues

As in previous cycles, ICCS 2022 gathered data with a question that asked students to rate their expectations of engaging ("I would certainly do this," "I would probably do this," "I would probably not do this," or "I would certainly not do this") in activities intended to express opinions about social and political issues. ICCS 2022 used eight unchanged items from ICCS 2016 and five newly developed items, four of which were designed to measure expected participation in environment protection activities, an aspect that is related to the focus area of sustainability. The item set was designed to measure three scales: (a) students' expected participation in legal civic and political activities; (b) students' expected participation in illegal protest activities; and (c) students' expected participation in activities to protect the environment. For all three dimensions we derived scales with high reliabilities.[5] For the scales measuring expected participation in legal and illegal activities, these were equated to the respective metrics established in ICCS 2016.

To measure expected participation in legal activities, the ICCS 2022 student questionnaire asked respondents to indicate their expectations ("I would certainly do this," "I would probably do this," "I would probably not do this," or "I would certainly not do this") to undertake the following activities: "Talk to others about your views on political or social issues" (63% of students on average across countries reported they would probably or certainly do this); "contact an elected representative" (35%); "take part in a peaceful march or rally" (47%); "collect signatures for a petition" (47%); "contribute to an online discussion about social or political issues" (43%); and "organize an online campaign in support of a political or social issue" (35%). The following items were used to collect data on students' expected participation in illegal protest activities: "Spray-paint protest slogans on walls" (24%), "stage a protest by blocking traffic" (22%), and "occupy public buildings as a sign of protest" (21%).

When comparing national average scale scores for the expected participation in legal civic activities to express opinions, Bulgaria, Colombia, Cyprus, Italy, Lithuania, Poland, Romania, the Slovak Republic, and Spain recorded scores significantly higher than the ICCS average (Table 4.14), while we observed scores that were significantly below the average in Croatia, Estonia, France, Latvia, Malta, the Netherlands, Norway, and Sweden. In Colombia we recorded the highest scale score that was four points higher than the ICCS 2022 average while students from the Netherlands showed the lowest level of expectations to engage in these activities with a score of four points below the ICCS 2022 average. In eight out of 13 common countries between 2016 and 2022 we observed statistically significant decreases, most notably (greater than three scale points) in Chinese Taipei, Croatia, and Latvia. On average, we recorded a (statistically significant) decrease of 1.4 score points.

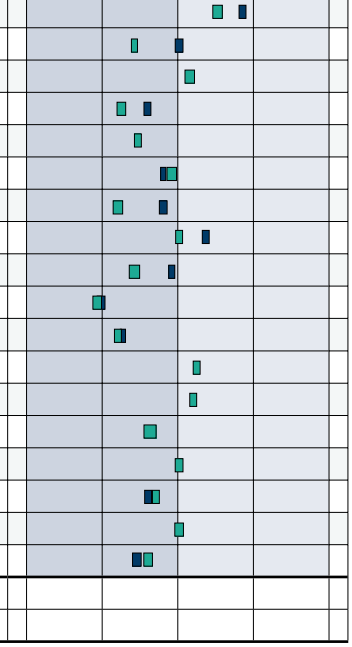
When comparing national average scale scores for the expected participation in illegal civic and political activities scale across participating countries (Table 4.15), in Bulgaria, Colombia, Cyprus, Lithuania, Serbia, and Slovenia we recorded scores that were significantly higher than the ICCS 2022 average, while scores significantly below average were found in Chinese Taipei, Croatia, Estonia, France, Latvia, Malta, the Netherlands, Norway, and Sweden. The relatively highest scale scores (i.e., more than three points above the ICCS 2022 average) were observed in Bulgaria, Colombia and Cyprus, while Chinese Taipei recorded the lowest scale score that was more than three points below average.

Compared to ICCS 2016, we observed significant but relatively small increases in expected participation in illegal activities for students from Slovenia (2.4 points), Italy (1.6 points), Colombia (1.6 points), and Norway (1.3 points). A significant but small decline was recorded in Malta (1.0 points). On average, there was a small but statistically significant increase of 0.7 score points.

[5]The average reliabilities (Cronbach's alpha) across countries for the three scales derived from this item set were 0.86 for legal activities, 0.83 for environmental protection activities, and 0.86 for illegal activities.

Table 4.14 National average scale scores indicating students' expected participation in legal civic and political activities

Country	2022	2016	Difference (2022–2016)
Bulgaria	50 (0.3) △	52 (0.2)	**-1.4** (0.4)
Chinese Taipei	48 (0.2)	52 (0.2)	**-3.5** (0.3)
Colombia	53 (0.3) ▲	55 (0.2)	**-1.6** (0.4)
Croatia[1]	47 (0.2) ▽	50 (0.2)	**-3.2** (0.3)
Cyprus	51 (0.3) △	-	-
Estonia	46 (0.3) ▽	48 (0.2)	**-1.9** (0.4)
France	47 (0.2) ▽	-	-
Italy	49 (0.3) △	49 (0.2)	0.1 (0.4)
Latvia[1]	46 (0.3) ▽	49 (0.2)	**-3.2** (0.4)
Lithuania	50 (0.2) △	52 (0.2)	**-1.9** (0.3)
Malta	47 (0.3) ▽	49 (0.2)	**-2.6** (0.4)
Netherlands†	44 (0.3) ▼	44 (0.2)	-0.4 (0.4)
Norway (9)[1]	46 (0.2) ▽	46 (0.2)	-0.2 (0.3)
Poland	51 (0.2) △	-	-
Romania	51 (0.2) △	-	-
Serbia	48 (0.3)	-	-
Slovak Republic	50 (0.2) △	-	-
Slovenia	48 (0.2)	48 (0.2)	0.4 (0.3)
Spain	50 (0.2) △	-	-
Sweden[1]	48 (0.3) ▽	47 (0.2)	0.6 (0.4)
ICCS 2022 average	49 (0.1)	-	-
ICCS 2016/2022 average	48 (0.1)	49 (0.1)	**-1.4** (0.1)
Countries not meeting sample participation requirements			
Brazil	52 (0.2)	-	-
Denmark	47 (0.2)	-	-
German benchmarking participant meeting sample participation requirements			
North Rhine-Westphalia	48 (0.3) ▽	-	-
German benchmarking participant not meeting sample participation requirements			
Schleswig-Holstein	48 (0.4)	-	-



Notes:
Statistically signficiant changes ($p < 0.05$) since 2009 and 2016 are displayed in **bold**.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 3 score points below ICCS 2022 average

2022 average score +/- confidence interval

2016 average score +/- confidence interval

On average across items, students with a score in the range with this color have more than 50% probablity to indicate:

	Certain or probable non-participation
	Certain or probable participation

Table 4.15 National average scale scores indicating students' expected participation in illegal protest activities

Country	2022	2016	Difference (2022–2016)	40 45 50 55 60
Bulgaria	54 (0.3) ▲	54 (0.3)	0.5 (0.4)	
Chinese Taipei	47 (0.2) ▼	47 (0.2)	0.4 (0.3)	
Colombia	55 (0.3) ▲	53 (0.3)	**1.6** (0.4)	
Croatia[1]	48 (0.2) ▽	48 (0.2)	0.1 (0.4)	
Cyprus	54 (0.3) ▲	-	-	
Estonia	49 (0.3) ▽	48 (0.2)	0.7 (0.4)	
France	49 (0.2) ▽	-	-	
Italy	50 (0.3)	48 (0.2)	**1.6** (0.4)	
Latvia[1]	48 (0.2) ▽	48 (0.2)	0.2 (0.4)	
Lithuania	52 (0.3) △	51 (0.3)	**0.8** (0.4)	
Malta	49 (0.3) ▽	50 (0.2)	**-1.0** (0.4)	
Netherlands†	48 (0.2) ▽	48 (0.2)	0.3 (0.4)	
Norway (9)[1]	49 (0.2) ▽	48 (0.1)	**1.3** (0.3)	
Poland	51 (0.2)	-	-	
Romania	51 (0.8)	-	-	
Serbia	53 (0.3) △	-	-	
Slovak Republic	51 (0.3)	-	-	
Slovenia	52 (0.2) △	50 (0.2)	**2.4** (0.4)	
Spain	50 (0.3)	-	-	
Sweden[1]	47 (0.3) ▽	47 (0.2)	0.1 (0.3)	
ICCS 2022 average	50 (0.1)	-	-	
ICCS 2016/2022 average	50 (0.1)	49 (0.1)	**0.7** (0.1)	
Countries not meeting sample participation requirements				
Brazil	52 (0.3)	-	-	
Denmark	47 (0.2)	-	-	
German benchmarking participant meeting sample participation requirements				
North Rhine-Westphalia	48 (0.2) ▽	-	-	
German benchmarking participant not meeting sample participation requirements				
Schleswig-Holstein	47 (0.4)	-	-	

Notes:
Statistically signficiant changes ($p < 0.05$) since 2009 and 2016 are displayed in **bold**.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 3 score points below ICCS 2022 average

2022 average score +/- confidence interval

2016 average score +/- confidence interval

On average across items, students with a score in the range with this color have more than 50% probablity to indicate:

	Certain or probable non-participation
	Certain or probable participation

4.4.3 Environmental Protection Activities

To illustrate students' expected engagement in environmental protection activities, we present the percentages of students who indicate that they would probably or certainly do the following activities to protect the environment: "Refuse to buy products that are harmful for the environment"; "tell someone to stop causing damage to the environment"; "participate in an organized protest to demand more action to protect our environment"; and "encourage other people to make personal efforts to help the environment (e.g., through saving water)." National percentages are compared across countries together with corresponding scale scores (Table 4.16).

On average across ICCS countries, 72% of students indicated the expectation to tell someone to stop causing environmental damage and to encourage other people to make personal efforts to help the environment. Refusing to buy environmentally harmful products was expected by 66%, while 57% expected to participate in organized protest to demand environmental protection. We observed considerable differences across countries. The highest scale scores were recorded in Colombia and Romania (more than three scale score points above the ICCS 2022 average), while the lowest were observed in Estonia, Latvia, the Netherlands, and Norway.

When comparing scale scores for students' expected participation in legal activities, students' expected participation in illegal protest activities, and students' expected participation in environment protection activities by levels of civic knowledge, we observed different patterns of associations (Table 4.17). While expected participation in legal activities showed no consistent associations with civic knowledge (with only small positive associations in four and small negative ones in two countries), we found consistent negative associations with expected engagement in illegal activities (a score point difference of about six points on average). In almost all countries, students with higher levels of civic knowledge were more likely to expect future engagement in environment protection activities, with a difference of about three score points on average.

4.4.4 Expected Political Participation as Adults

In ICCS 2022, using the same format applied in ICCS 2009 and 2016, students rated their intentions to become politically active ("I would certainly do this," "I would probably do this," "I would probably not do this," or "I would certainly not do this") using a set of items that reflected two different constructs: expected electoral participation and expected active participation in political activities. The items indicating expected electoral participation were: "Vote in local elections" (77% expected to probably or certainly do this on average across countries); "vote in national elections" (77%); and "get information about candidates before voting in an election" (75%). The items indicating expected active political participation were: "Join a political party" (25%); "join a trade union" (27%); "stand as a candidate in local elections" (24%); and "join an organization for a political or social cause" (31%). Both scales were equated to the metric established in ICCS 2009 and showed high levels of reliability across participating countries.[6]

Previous cycles of ICCS have indicated that, while majorities of students across participating countries expected to participate in elections, relatively few students expressed intentions to engage in more active forms of political participation (Schulz et al., 2010, 2018).

4.4.5 Expected Electoral Participation

We observed that average scale scores for expected electoral participation ranged from 44 to 53 scale points (Table 4.18). Scores in France, Norway, and Romania were significantly higher than the ICCS 2022 average by more than three scale points, while those in Estonia, Latvia, and Serbia were significantly lower by more than three scale points. We also noted a statistically significant decline (by 2.5 score points on average) between ICCS 2016 and ICCS 2022 as well as a smaller but also statistically significant decrease (by −1.2 score points) between ICCS 2009 and ICCS 2022.

When comparing scale scores for expected electoral participation by gender, socioeconomic background, and level of civic knowledge (Table 4.19), the results show consistent significant positive associations between expected electoral participation and level of civic knowledge. On average across ICCS countries, the difference in expected electoral participation

[6]Average reliabilities (Cronbach's alpha) across countries were 0.86 for electoral participation and 0.86 for active political participation. The item "help a candidate or party during an election campaign" was no longer included in the second scale in ICCS 2022, due to a much lower factor loading than in previous cycles.

Table 4.16 National percentages and scale scores indicating students' expected participation in environmental protection activities

Country	Percentages of students who expect to probably or certainly:				Average scale scores indicating students' expected participation in environmental protection activities
	Tell someone to stop causing damage to the environment (%)	Encourage other people to make personal efforts to help the environment (e.g., through saving water) (%)	Refuse to buy products that are harmful for the environment (%)	Participate in an organized protest to demand more action to protect our environment (%)	
Bulgaria	70 (1.0) ▽	69 (1.3) ▽	67 (1.1)	60 (1.1) △	50 (0.2)
Chinese Taipei	84 (0.7) ▲	85 (0.8) ▲	84 (0.7) ▲	60 (0.8) △	53 (0.2) △
Colombia	82 (0.9) △	83 (1.0) ▲	71 (1.2) △	77 (0.9) ▲	54 (0.3) ▲
Croatia[1]	77 (1.1) △	77 (1.0) △	65 (1.2)	62 (1.0) △	51 (0.2) △
Cyprus	74 (1.0)	71 (1.1)	64 (0.9)	63 (1.0) △	51 (0.3) △
Estonia	58 (1.4) ▼	64 (1.4) ▽	56 (1.3) ▽	43 (1.3) ▼	47 (0.3) ▼
France	75 (1.0) △	77 (1.0) △	67 (0.9)	51 (1.0) ▽	51 (0.2) △
Italy	85 (0.9) ▲	82 (0.9) △	76 (1.0) ▲	67 (1.1) ▲	53 (0.2) △
Latvia[1]	59 (1.2) ▼	58 (1.3) ▼	56 (1.2) ▽	48 (1.2) ▽	46 (0.3) ▼
Lithuania	73 (0.8)	75 (0.9) △	68 (1.1) △	63 (1.0) △	51 (0.2) △
Malta	77 (1.4) △	74 (1.6)	66 (0.8)	55 (0.9)	50 (0.3)
Netherlands†	46 (1.5) ▼	53 (1.6) ▼	48 (1.4) ▼	30 (1.3) ▼	44 (0.3) ▼
Norway (9)[1]	57 (0.9) ▼	58 (0.9) ▼	55 (0.9) ▼	36 (1.0) ▼	46 (0.2) ▼
Poland	84 (0.7) ▲	78 (0.9) △	73 (0.9) △	61 (0.9) △	51 (0.2) △
Romania	86 (1.4) ▲	86 (1.0) ▲	73 (1.5) △	77 (1.2) ▲	54 (0.3) ▲
Serbia	74 (1.2)	69 (1.1) ▽	62 (1.3) ▽	61 (1.3) △	50 (0.3)
Slovak Republic	79 (1.0) △	75 (1.1) △	66 (1.1)	62 (1.3) △	51 (0.3) △
Slovenia	68 (1.0) ▽	68 (1.1) ▽	63 (1.0) ▽	55 (1.0)	49 (0.2) ▽
Spain	80 (0.9) △	80 (0.8) △	68 (1.0) △	64 (1.1) △	52 (0.2) △
Sweden[1]	61 (1.1) ▼	65 (1.1) ▽	63 (1.0) ▽	35 (1.1) ▼	47 (0.2) ▽
ICCS 2022 average	72 (0.2)	72 (0.2)	66 (0.2)	57 (0.2)	50 (0.1)
Countries not meeting sample participation requirements					
Brazil	74 (0.8)	80 (0.8)	67 (0.9)	71 (1.0)	53 (0.2)
Denmark	56 (1.1)	60 (0.8)	64 (0.9)	36 (1.2)	47 (0.2)
German benchmarking participant meeting sample participation requirements					
North Rhine-Westphalia	60 (1.2) ▼	67 (1.2) ▽	55 (1.2) ▼	43 (1.3) ▼	47 (0.3) ▼
German benchmarking participant not meeting sample participation requirements					
Schleswig-Holstein	60 (1.5)	69 (1.7)	56 (1.6)	48 (1.7)	48 (0.3)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 10 percentage or 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points or 3 score points below ICCS 2022

Table 4.17 National average scores for students' expectations to express their opinions through legal, illegal, and environmental protection activities by students' levels of civic knowledge

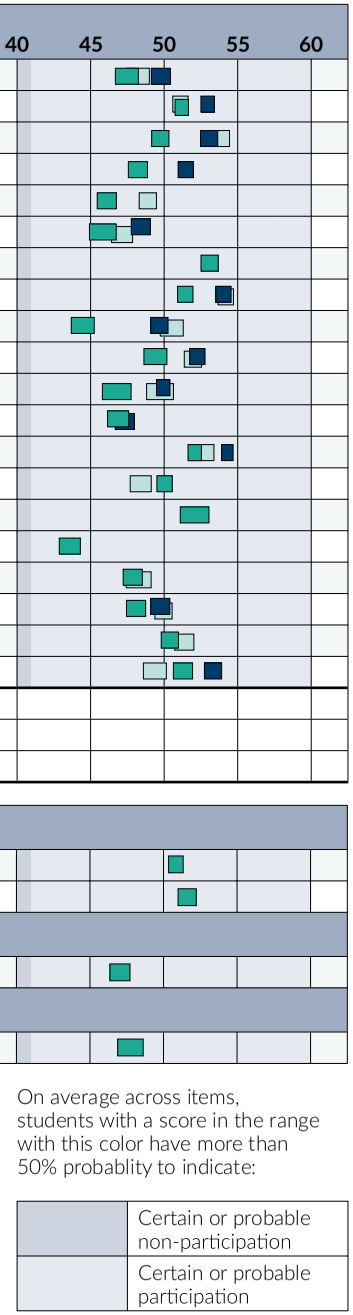
Country	Expected participation in legal activities: Civic knowledge below Level B (below 479)	Expected participation in legal activities: Civic knowledge at or above Level B (479 and above)	Expected participation in illegal protest activities: Civic knowledge below Level B (below 479)	Expected participation in illegal protest activities: Civic knowledge at or above Level B (479 and above)	Expected participation in environmental protection activities: Civic knowledge below Level B (below 479)	Expected participation in environmental protection activities: Civic knowledge at or above Level B (479 and above)
Bulgaria	51 (0.5)	50 (0.3)	**57** (0.4)	51 (0.4)	48 (0.3)	**52** (0.3)
Chinese Taipei	50 (1.1)	48 (0.2)	**54** (0.7)	46 (0.2)	52 (0.8)	53 (0.2)
Colombia	**54** (0.4)	52 (0.4)	**59** (0.3)	50 (0.3)	52 (0.3)	**56** (0.3)
Croatia[1]	46 (0.6)	**47** (0.2)	**52** (0.5)	47 (0.2)	50 (0.5)	**51** (0.2)
Cyprus	50 (0.4)	**52** (0.4)	**57** (0.4)	51 (0.4)	49 (0.3)	**53** (0.4)
Estonia	45 (0.5)	46 (0.3)	**52** (0.5)	47 (0.3)	44 (0.4)	**48** (0.3)
France	47 (0.4)	47 (0.2)	**52** (0.4)	48 (0.2)	48 (0.4)	**52** (0.3)
Italy	49 (0.7)	49 (0.3)	**54** (0.7)	49 (0.3)	50 (0.5)	**54** (0.3)
Latvia[1]	45 (0.5)	**46** (0.3)	**51** (0.4)	46 (0.3)	44 (0.4)	**48** (0.3)
Lithuania	49 (0.4)	**51** (0.3)	**56** (0.3)	50 (0.3)	48 (0.4)	**52** (0.3)
Malta	**48** (0.4)	46 (0.4)	**54** (0.4)	46 (0.3)	48 (0.5)	**52** (0.3)
Netherlands†	44 (0.5)	44 (0.3)	**52** (0.4)	46 (0.3)	42 (0.4)	**45** (0.3)
Norway (9)[1]	47 (0.5)	46 (0.2)	**54** (0.4)	48 (0.2)	45 (0.4)	**46** (0.2)
Poland	50 (0.5)	**52** (0.2)	**54** (0.5)	50 (0.2)	50 (0.4)	**52** (0.2)
Romania	51 (0.4)	51 (0.4)	**54** (0.7)	48 (0.6)	53 (0.4)	**56** (0.4)
Serbia	48 (0.5)	48 (0.5)	**54** (0.3)	50 (0.4)	49 (0.4)	**52** (0.3)
Slovak Republic	50 (0.4)	50 (0.3)	**55** (0.3)	48 (0.2)	49 (0.4)	**52** (0.3)
Slovenia	48 (0.5)	48 (0.3)	**56** (0.3)	50 (0.3)	47 (0.4)	**50** (0.2)
Spain	50 (0.5)	50 (0.3)	**54** (0.4)	48 (0.3)	50 (0.4)	**53** (0.2)
Sweden[1]	48 (0.9)	48 (0.2)	**54** (0.7)	46 (0.2)	46 (0.6)	**47** (0.2)
ICCS 2022 average	48 (0.1)	49 (0.1)	**54** (0.1)	48 (0.1)	48 (0.1)	**51** (0.1)
Countries not meeting sample participation requirements						
Brazil	53 (0.3)	**51** (0.4)	**56** (0.3)	48 (0.3)	51 (0.3)	**54** (0.3)
Denmark	47 (0.5)	**48** (0.2)	**53** (0.4)	46 (0.2)	45 (0.4)	**47** (0.2)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	48 (0.6)	**48** (0.3)	**53** (0.5)	46 (0.2)	46 (0.4)	**47** (0.3)
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	48 (1.0)	**49** (0.4)	**53** (0.8)	45 (0.3)	46 (0.7)	**48** (0.4)

Notes:
Score averages which are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups not statistically significant at $p < 0.05$.

Table 4.18 National average scale scores indicating students' expected electoral participation

Country	2022		2016	2009	Difference (2022–2016)	Difference (2022–2009)
Bulgaria	47 (0.3)	▽	50 (0.3)	48 (0.3)	**-2.1** (0.4)	-0.3 (0.5)
Chinese Taipei	51 (0.2)	△	53 (0.2)	51 (0.2)	**-1.5** (0.3)	0.5 (0.3)
Colombia	50 (0.2)	△	53 (0.2)	54 (0.2)	**-3.4** (0.4)	**-3.9** (0.4)
Croatia[1]	48 (0.3)	▽	51 (0.2)	-	**-3.1** (0.4)	-
Cyprus	46 (0.3)	▽	-	49 (0.2)	-	**-2.5** (0.4)
Estonia	46 (0.4)	▼	48 (0.2)	47 (0.3)	**-2.3** (0.5)	-0.9 (0.5)
France	53 (0.2)	▲	-	-	-	-
Italy	52 (0.2)	△	54 (0.2)	54 (0.2)	**-2.7** (0.4)	**-2.6** (0.4)
Latvia[1]	44 (0.3)	▼	49 (0.2)	50 (0.3)	**-5.0** (0.4)	**-5.8** (0.5)
Lithuania	49 (0.3)		52 (0.2)	52 (0.2)	**-2.8** (0.4)	**-2.4** (0.4)
Malta	47 (0.4)	▽	50 (0.2)	49 (0.4)	**-3.2** (0.5)	**-2.5** (0.6)
Netherlands†	47 (0.3)	▽	47 (0.3)	-	0.0 (0.4)	-
Norway (9)[1]	52 (0.2)	▲	54 (0.1)	52 (0.3)	**-2.1** (0.3)	0.0 (0.4)
Poland	50 (0.2)	△	-	48 (0.3)	-	**1.8** (0.4)
Romania	52 (0.4)	▲	-	-	-	-
Serbia	43 (0.3)	▼	-	-	-	-
Slovak Republic	48 (0.3)	▽	-	48 (0.3)	-	-0.2 (0.5)
Slovenia	48 (0.2)	▽	50 (0.3)	50 (0.2)	**-1.6** (0.4)	**-1.5** (0.4)
Spain	50 (0.2)	△	-	51 (0.3)	-	-0.6 (0.4)
Sweden[1]	51 (0.3)	△	53 (0.2)	49 (0.3)	**-1.9** (0.4)	**2.3** (0.5)
ICCS 2022 average	49 (0.1)					
ICCS 2022/2016 average	49 (0.1)		51 (0.1)		**-2.5** (0.1)	
ICCS 2022/2009 average	49 (0.1)			50 (0.1)		**-1.2** (0.1)
Countries not meeting sample participation requirements						
Brazil	51 (0.2)		-	-	-	-
Denmark	52 (0.2)		-	-	-	-
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	47 (0.3)	▽	-	-	-	-
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	48 (0.3)		-	-	-	-



Notes:
Statistically signficiant changes ($p < 0.05$) since 2009 and 2016 are displayed in **bold**.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 3 score points below ICCS 2022 average

2022 average score +/- confidence interval
2016 average score +/- confidence interval
2009 average score +/- confidence interval

On average across items, students with a score in the range with this color have more than 50% probablity to indicate:

	Certain or probable non-participation
	Certain or probable participation

Table 4.19 National average scale scores indicating students' expected electoral participation by gender, socioeconomic background, and level of civic knowledge

Country	Scale score average by gender group: Male students	Scale score average by gender group: Female students	Scale score by socioeconomic background: Below country average	Scale score by socioeconomic background: At or above country average	Scale score average by level of civic knowledge: Civic knowledge below Level B (below 479)	Scale score average by level of civic knowledge: Civic knowledge at or above Level B (479 and above)
Bulgaria	47 (0.3)	**48** (0.4)	46 (0.3)	**49** (0.4)	45 (0.4)	**50** (0.4)
Chinese Taipei	51 (0.2)	52 (0.2)	50 (0.2)	**52** (0.3)	46 (0.7)	**52** (0.2)
Colombia	50 (0.3)	50 (0.3)	49 (0.3)	**51** (0.3)	48 (0.3)	**52** (0.3)
Croatia[1]	47 (0.3)	**49** (0.3)	47 (0.4)	**50** (0.3)	44 (0.5)	**50** (0.3)
Cyprus	46 (0.4)	**46** (0.3)	44 (0.3)	**48** (0.3)	44 (0.3)	**49** (0.4)
Estonia	46 (0.4)	46 (0.4)	43 (0.3)	**48** (0.5)	41 (0.4)	**47** (0.4)
France	53 (0.3)	**54** (0.3)	52 (0.3)	**55** (0.3)	49 (0.4)	**55** (0.2)
Italy	51 (0.3)	**52** (0.3)	50 (0.3)	**53** (0.2)	47 (0.4)	**53** (0.2)
Latvia[1]	44 (0.4)	**45** (0.4)	42 (0.4)	**47** (0.3)	41 (0.4)	**47** (0.3)
Lithuania	48 (0.3)	**50** (0.3)	47 (0.3)	**52** (0.4)	45 (0.3)	**52** (0.3)
Malta	46 (0.3)	**47** (0.5)	46 (0.3)	**48** (0.5)	44 (0.4)	**48** (0.4)
Netherlands†	47 (0.4)	47 (0.4)	44 (0.3)	**50** (0.3)	43 (0.4)	**49** (0.3)
Norway (9)[1]	51 (0.2)	**54** (0.2)	50 (0.2)	**55** (0.2)	47 (0.3)	**54** (0.2)
Poland	49 (0.3)	**51** (0.2)	48 (0.2)	**52** (0.2)	45 (0.4)	**51** (0.2)
Romania	51 (0.4)	**53** (0.4)	51 (0.4)	**53** (0.4)	50 (0.4)	**54** (0.4)
Serbia	44 (0.4)	43 (0.4)	42 (0.4)	**45** (0.3)	41 (0.3)	**46** (0.5)
Slovak Republic	48 (0.3)	48 (0.3)	46 (0.4)	**50** (0.3)	44 (0.5)	**50** (0.3)
Slovenia	48 (0.3)	**49** (0.3)	46 (0.3)	**50** (0.4)	44 (0.4)	**50** (0.3)
Spain	50 (0.3)	**51** (0.3)	49 (0.3)	**52** (0.3)	47 (0.4)	**52** (0.2)
Sweden[1]	51 (0.3)	**52** (0.3)	49 (0.3)	**53** (0.3)	46 (0.6)	**53** (0.2)
ICCS 2022 average	48 (0.1)	**49** (0.1)	47 (0.1)	**51** (0.1)	45 (0.1)	**51** (0.1)
Countries not meeting sample participation requirements						
Brazil	51 (0.2)	**51** (0.3)	50 (0.3)	**52** (0.3)	48 (0.3)	**54** (0.3)
Denmark	50 (0.3)	**53** (0.3)	50 (0.3)	**54** (0.3)	46 (0.4)	**53** (0.2)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	46 (0.3)	**48** (0.4)	44 (0.3)	**50** (0.3)	42 (0.4)	**49** (0.3)
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	48 (0.4)	48 (0.5)	45 (0.5)	**50** (0.5)	43 (0.8)	**49** (0.3)

Notes:
Score averages which are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups not statistically significant at $p < 0.05$.

score between students with civic knowledge at or above Level B and students with civic knowledge below Level B (as previously defined) was almost six scale points. The largest difference was in Norway (7 points) and the smallest was in Colombia (4 points).

There were also consistently significant differences in expected electoral participation score between the two groups based on socioeconomic background (defined as above or below the country average). On average, the scores for the higher socioeconomic groups were almost four scale points higher than the scores for students from households with lower socioeconomic status. The largest differences were observed in the Netherlands, Latvia and Norway (of more than five scale points), while the smallest differences were recorded in Chinese Taipei, Colombia, Cyprus, Malta, and Romania (of two scale points).

There were only small differences in expected electoral participation when comparing results for female and male students. Female students scored only slightly, albeit significantly, higher than male students in most countries with an average difference of one score point.

4.4.6 Expected Active Political Participation

In ICCS 2022, average scale scores ranged from 46 (in Serbia) to 53 scale points (in Colombia) (Table 4.20). On average across common countries, we observed a small (albeit statistically significant) decrease in scale scores between ICCS 2016 and 2022 while there was also an equally small increase between ICCS 2009 and 2022.

Statistically significant decreases between 2016 and 2022 were found in four countries (Croatia, Latvia, Lithuania, and the Netherlands). Between ICCS 2009 and 2022, there were increases in expected active political participation in Chinese Taipei (2.4 points), Bulgaria (1.9 points), Italy (1.6 points), Poland (1.5 points), Lithuania and Malta (each 1.4 points), and Spain (1.3 points), while we observed a decrease in Latvia (2.2 points).

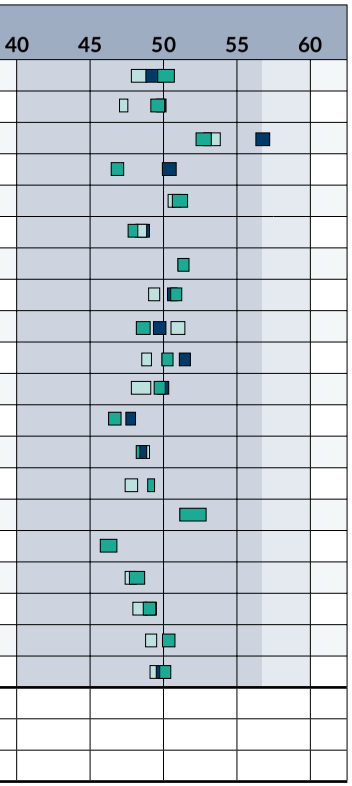
When comparing scale scores for expected active political participation by gender, socioeconomic background, and levels of civic knowledge (Table 4.21), we found that scale scores for expected active political participation were significantly higher for male students than female students in just 12 countries and not statistically significant in the other eight countries. On average the difference was very small (about one scale point).

We also found that scale scores for expected active political participation were significantly higher for those from the lower socioeconomic group in just four countries and higher for those from higher socioeconomic groups in two countries. On average, there was a very small difference between the two socioeconomic groups.

Expected active political participation was to a small extent negatively associated with levels of civic knowledge. On average across countries, the difference in expected active political participation score between students with civic knowledge at or above Level B and students with civic knowledge below Level B (as previously defined) was more than two scale points. In 17 countries, and the benchmarking entity North Rhine-Westphalia, students with higher levels of civic knowledge had significantly lower scale scores, with the largest difference recorded in Bulgaria and Colombia (about six scale points).

Table 4.20 National average scale scores indicating students' expected active political participation

Country	2022	2016	2009	Difference (2022–2016)	Difference (2022–2009)
Bulgaria	50 (0.3) △	50 (0.3)	49 (0.3)	0.6 (0.4)	**1.9** (0.5)
Chinese Taipei	50 (0.2)	50 (0.2)	47 (0.1)	-0.2 (0.3)	**2.4** (0.5)
Colombia	53 (0.3) ▲	53 (0.3)	53 (0.3)	-0.2 (0.4)	-0.3 (0.5)
Croatia[1]	47 (0.2) ▽	50 (0.2)	-	**-3.6** (0.4)	-
Cyprus	51 (0.3) △	-	51 (0.2)	-	0.4 (0.5)
Estonia	48 (0.2) ▽	48 (0.2)	48 (0.2)	-0.5 (0.3)	-0.4 (0.5)
France	52 (0.2) △	-	-	-	-
Italy	51 (0.2) △	51 (0.2)	49 (0.2)	0.2 (0.3)	**1.6** (0.5)
Latvia[1]	49 (0.2) ▽	50 (0.2)	51 (0.2)	**-1.1** (0.3)	**-2.2** (0.5)
Lithuania	50 (0.2) △	52 (0.2)	49 (0.2)	**-1.3** (0.3)	**1.4** (0.5)
Malta	50 (0.2)	50 (0.2)	48 (0.4)	-0.2 (0.3)	**1.4** (0.5)
Netherlands†	47 (0.2) ▽	48 (0.2)	-	**-1.0** (0.3)	-
Norway (9)[1]	49 (0.2) ▽	49 (0.1)	49 (0.2)	0.2 (0.2)	0.0 (0.5)
Poland	49 (0.1) ▽	-	48 (0.2)	-	**1.5** (0.4)
Romania	52 (0.5) △	-	-	-	-
Serbia	46 (0.3) ▼	-	-	-	-
Slovak Republic	48 (0.3) ▽	-	48 (0.2)	-	0.4 (0.5)
Slovenia	49 (0.2) ▽	49 (0.2)	48 (0.2)	0.0 (0.3)	0.7 (0.5)
Spain	51 (0.2) △	-	49 (0.2)	-	**1.3** (0.5)
Sweden[1]	50 (0.2) △	50 (0.3)	50 (0.2)	0.2 (0.3)	0.6 (0.5)
ICCS 2022 average	50 (0.1)				
ICCS 2022/2016 average	49 (0.1)	50 (0.1)		**-0.5** (0.1)	
ICCS 2022/2009 average	50 (0.1)		49 (0.1)		**0.7** (0.1)
Countries not meeting sample participation requirements					
Brazil	53 (0.2)	-	-	-	-
Denmark	50 (0.2)	-	-	-	-
German benchmarking participant meeting sample participation requirements					
North Rhine-Westphalia	49 (0.2) ▽	-	-	-	-
German benchmarking participant not meeting sample participation requirements					
Schleswig-Holstein	49 (0.3)	-	-	-	-



Notes:
Statistically signficiant changes ($p < 0.05$) since 2009 and 2016 are displayed in **bold**.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 3 score points below ICCS 2022 average

2022 average score +/- confidence interval
2016 average score +/- confidence interval
2009 average score +/- confidence interval

On average across items, students with a score in the range with this color have more than 50% probablity to indicate:

	Certain or probable non-participation
	Certain or probable participation

Table 4.21 National average scale scores indicating students' expected active political participation by gender, socioeconomic background, and level of civic knowledge

Country	Scale score average by gender group: Male students	Scale score average by gender group: Female students	Scale score by socioeconomic background: Below country average	Scale score by socioeconomic background: At or above country average	Scale score average by level of civic knowledge: Civic knowledge below Level B (below 479)	Scale score average by level of civic knowledge: Civic knowledge at or above Level B (479 and above)
Bulgaria	**52** (0.4)	49 (0.4)	**52** (0.4)	49 (0.4)	**53** (0.4)	47 (0.3)
Chinese Taipei	**51** (0.3)	48 (0.3)	50 (0.3)	50 (0.3)	**54** (0.8)	49 (0.2)
Colombia	53 (0.3)	53 (0.3)	53 (0.4)	53 (0.3)	**56** (0.3)	50 (0.3)
Croatia[1]	**47** (0.3)	46 (0.3)	47 (0.3)	47 (0.3)	48 (0.5)	47 (0.3)
Cyprus	**52** (0.4)	51 (0.3)	51 (0.3)	52 (0.4)	**52** (0.3)	50 (0.4)
Estonia	**49** (0.3)	47 (0.3)	48 (0.3)	48 (0.2)	**49** (0.4)	48 (0.2)
France	**52** (0.3)	51 (0.3)	51 (0.3)	**52** (0.3)	52 (0.4)	52 (0.2)
Italy	51 (0.3)	51 (0.3)	50 (0.3)	**52** (0.3)	51 (0.4)	51 (0.3)
Latvia[1]	**50** (0.3)	48 (0.3)	48 (0.3)	**49** (0.3)	**50** (0.4)	48 (0.3)
Lithuania	**51** (0.3)	50 (0.2)	51 (0.3)	50 (0.3)	**52** (0.3)	49 (0.2)
Malta	**50** (0.2)	49 (0.2)	50 (0.4)	50 (0.2)	**52** (0.4)	48 (0.3)
Netherlands†	47 (0.3)	46 (0.3)	46 (0.3)	47 (0.4)	**48** (0.4)	46 (0.3)
Norway (9)[1]	49 (0.2)	48 (0.2)	49 (0.3)	49 (0.2)	**51** (0.5)	48 (0.2)
Poland	49 (0.2)	49 (0.2)	50 (0.2)	49 (0.2)	**51** (0.4)	49 (0.2)
Romania	52 (0.6)	52 (0.4)	**54** (0.3)	50 (0.6)	**54** (0.4)	50 (0.5)
Serbia	**48** (0.4)	45 (0.4)	**47** (0.4)	46 (0.3)	**48** (0.4)	45 (0.4)
Slovak Republic	**49** (0.4)	47 (0.3)	**49** (0.4)	47 (0.3)	**51** (0.5)	46 (0.3)
Slovenia	**50** (0.3)	48 (0.3)	49 (0.3)	49 (0.3)	**51** (0.4)	48 (0.3)
Spain	51 (0.3)	50 (0.3)	50 (0.3)	51 (0.3)	**52** (0.4)	50 (0.3)
Sweden[1]	51 (0.3)	50 (0.2)	50 (0.3)	50 (0.2)	**52** (0.6)	50 (0.2)
ICCS 2022 average	**50** (0.1)	49 (0.1)	**50** (0.1)	49 (0.1)	**51** (0.1)	49 (0.1)
Countries not meeting sample participation requirements						
Brazil	**54** (0.4)	52 (0.3)	**54** (0.3)	52 (0.4)	**56** (0.3)	50 (0.3)
Denmark	50 (0.2)	50 (0.2)	50 (0.2)	50 (0.2)	51 (0.4)	50 (0.2)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	48 (0.3)	49 (0.3)	48 (0.3)	49 (0.3)	**50** (0.4)	48 (0.3)
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	49 (0.4)	49 (0.4)	49 (0.5)	49 (0.4)	**51** (0.8)	48 (0.3)

Notes:
Score averages which are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups not statistically significant at $p < 0.05$.

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Attitudes Toward Important Issues in Society

5

Chapter Highlights

Views of political systems and democratic institutions

- While majorities among lower-secondary students in participating countries viewed democracy as the best form of government, most of them also agreed with statements expressing critical views of their political system. (Table 5.1)
- Students' understanding of situations that posed threats to the integrity of democratic systems was related to their civic knowledge but relationships of satisfaction and critical views of political systems to civic knowledge were more varied across countries. (Table 5.4)
- There were considerable differences across countries in the level of students' agreement with the imposition of restrictions in a national emergency, but support for restrictions was higher among those with higher levels of civic knowledge and above-average socioeconomic background. (Tables 5.5 and 5.6)
- Amongst civic institutions, courts of justice were the most trusted, however, there had been declines in students' trust for most institutions between 2016 and 2022. (Table 5.7)

Attitudes toward equal rights

- Lower-secondary students continued to strongly endorse gender equality, and endorsement was stronger among female students (compared to male students), those with higher levels of civic knowledge, and those with above-average socioeconomic background. (Tables 5.9 and 5.10)
- As in previous cycles, young people continued to express high levels of support for equal rights for immigrants, and for all ethnic groups in society; levels of support were found to be higher among students with higher levels of civic knowledge and among female students. (Tables 5.11 to 5.14)

Beliefs related to citizenship responsibilities and the environment

- Globally oriented citizenship and social-movement-related citizenship behavior were more strongly viewed as important by students with higher levels of civic knowledge than compared to their less knowledgeable peers. (Table 5.19)
- Students expressed high levels of support for environmental protection, which was higher among students with higher levels of civic knowledge, among students from above average socioeconomic background, and among female students. (Tables 5.20 and 5.21)
- Students' perceptions of global environmental threats had grown stronger between 2016 and 2022 and was stronger among those with higher levels of civic knowledge, those with above average socioeconomic background, and female students. (Tables 5.22 and 5.23)
- When compared to 2016, on average, fewer students in 2022 perceived infectious diseases as a threat to the world's future while concerns about violent conflicts and global financial crises increased. (Tables 5.24a and 5.24b)

W. Schulz et al., *Education for Citizenship in Times of Global Challenge*, https://doi.org/10.1007/978-3-031-65603-3_5

5.1 Introduction

Recent years have seen many developments with implications for civic and citizenship education. Notions of citizenship are being challenged by globalization, migration, and the establishment of supra-regional organizations. Many of these issues transcend national borders and attract worldwide prominence, opening questions about the attitudes of people to these issues nationally and internationally. Although there is a well-established literature concerned with the formation of political attitudes by young people and how those attitudes relate to political participation, one review concluded that there is a need for large cross-national comparative studies of the political attitudes and participation of youth (Weiss, 2020). This conclusion is supported in current times in view of increasing signs of instability of established political systems in conjunction with a rise of political movements that are often formed in response to globalization, economic inequalities, and increased migration (European Commission, 2016; Eurostat, 2018; UNESCO [United Nations Educational, Scientific and Cultural Organization], 2015).

Like previous International Association for the Evaluation of Educational Achievement (IEA) studies of civic and citizenship education, the International Civic and Citizenship Education Study (ICCS) 2009 and 2016 emphasized the measurement of affective aspects related to civic and citizenship education through student questionnaire items. Such measures are regarded as important learning outcomes and have a similar standing in the process of development, analysis, and reporting as measures of students' civic knowledge or indicators of engagement. Student attitudes, and perceptions relevant to civic and citizenship issues, are judgments in relation to ideas, people, objects, events, or situations. ICCS 2022 student questionnaires use items that do not require correct or incorrect responses but, for example, indicate the extent to which respondents agree or disagree with a given statement.

This chapter focuses on Research Question 4: *What beliefs do students in participating countries hold regarding important civic issues in modern society and what are the factors influencing their variation?* This research question is related to different student affective measures and encompasses the following specific research questions:

(a) *What are students' beliefs regarding the importance of different principles underlying a democratic society?*
(b) *What are students' perceptions of social cohesion and diversity in the societies they live in?*
(c) *What attitudes do students hold toward civic institutions and society?*
(d) *What changes in student beliefs can be observed since previous ICCS cycles?*

The ICCS 2022 assessment framework identified focal areas that permeate the study and are addressed by various aspects of civic and citizenship education (Schulz et al., 2023). These focus areas are sustainability, engagement through digital technologies, diversity, and young people's views of their political system. Accordingly, this chapter addresses young people's views of political systems, students' attitudes to issues related to diversity (such as attitudes toward equal rights for different groups in society), as well as their attitudes to sustainability and global citizenship.

The chapter begins with a brief discussion of the conceptual background to attitudes and a review of relevant prior research. That discussion is followed by the presentation of ICCS 2022 results for selected topics based primarily on analyses of student questionnaire data. The three clusters of topics addressed in the chapter are: students' views of political systems and democratic institutions, students' attitudes toward equal rights, and students' beliefs related to citizenship responsibilities and the environment.

All scales presented in this chapter are described in item maps contained in Appendix A.4 of this report. These maps map scale scores to expected item responses under the ICCS scaling model, which is also set out in Appendix A.4. Greater detail on the scaling and equating procedures for questionnaire items will be provided in the ICCS 2022 technical report (Schulz et al., forthcoming).

As we mentioned in relation to civic engagement in Chap. 4, readers should be aware that the formats used to gauge respondents' attitudes across different national contexts may not always reflect respondents' beliefs consistently across the different languages and cultures represented in this survey (see, for example, Desa et al., 2018; Heine et al., 2002; Schulz & Fraillon, 2011; Van de gaer et al., 2012).

In other words, variations of scale scores across countries may be partly due to differences related to cultural or linguistic contexts. Furthermore, slight variations in some of the measured attitudes might also be associated with differences in the ICCS 2022 assessment mode (paper or computer). There is evidence that respondents may express beliefs on sensitive issues more openly in a computer-based environment (Feigelson & Dwight, 2000; Hart & Goldstein, 1985).

5.2 Conceptual Background and Prior Research

Attitudes refer to judgments about, or evaluations of, ideas, persons, objects, events, situations, and/ or relationships. It is possible for individuals to harbor apparently contradictory attitudes at the same time. Attitudes encompass perceptions that are focused on specifics and can change over time, whereas dispositions represent more enduring characteristics of a person, and beliefs are more fundamental understandings of values that tend to be constant over longer periods of time (Hanel et al., 2021). In ICCS 2022, attitudes include attitudes toward civic principles, perceptions of civic issues and institutions, and perceptions of civic roles and identities.

ICCS 2022 used a student questionnaire to measure the constructs underpinning the scales and items presented in this chapter and used IRT (item response theory) scaling to derive reporting scales, all with a mean of 50 and a standard deviation of 10 with equally weighted national data either for 2022 or, where equated, for earlier cycles (Schulz, 2009). Details about scaling and equating are presented in the ICCS 2022 technical report (Schulz et al., forthcoming). Item maps describe the scales presented in this chapter. Cross-national differences of scale scores need to be interpreted in relation to the diversity of languages, cultures, and national contexts evident in the ICCS countries.

In addition to discussing average scale scores for participating entities, the chapter also reviews associations between attitudinal measures and selected student characteristics such as civic knowledge, gender, interest in political or social issues, and socioeconomic background. For each questionnaire scale, we do this by comparing scale score averages across comparison groups, each consisting of two categories (for example, students with high and low levels of civic knowledge). Graphical displays of differences between groups and their statistical significance ($p < 0.05$) accompany those comparisons.

5.2.1 Views of Political Systems and Democratic Institutions

Over successive cycles, ICCS has given considerable attention to attitudes to civic issues and institutions (Schulz et al., 2023). In ICCS 2022, a specific focus was on views of the functioning of political systems, perceived threats to democracy, attitudes to restrictions on freedom in national emergencies (as a contemporary issue that was part of the recent experience of many students during the COVID-19 pandemic), and trust in civic institutions.

There is a view that political alienation from civic institutions has increased in recent years, which is evidenced by a growing number of people in established democracies who turn away from established political parties to support populist parties or candidates (Boogards, 2017; Diamond, 2021). Increasing economic inequality and growing globalization have often been cited as reasons for these developments (Hobolt et al., 2016). However, there is also evidence of considerable cross-national differences in the profiles of people who express dissatisfaction, and the political features with which they are dissatisfied (Rovira Kaltwasser & Van Hauwaert, 2020). Perspectives on views of political systems can also be gleaned from responses to potential threats to democracy. This approach originated in the IEA Civic Education Study (CIVED) in 1999, where students were asked to rate several characteristics of society as either "good or bad for democracy" (Torney-Purta et al., 2001). Some of these items were re-included in modified questionnaire formats in ICCS 2009 and 2016 (Schulz et al., 2010, 2018). For ICCS 2022, students were asked about their perceptions of the extent to which different possible situations in society were "bad for democracy."

The outbreak of the COVID-19 pandemic in early 2020 presented a challenge to democratic governance in terms of the restrictions placed on individual freedom and the suspension of citizen rights and democratic processes (Landman & Di Gennaro Splendore, 2020; Marzocchi, 2020). It also disrupted the school experience of students in many countries in various ways and to varying extents (Meinck et al., 2022; United Nations, 2020). There is also evidence that it affected public perceptions of government and society (Krastev & Leonard, 2020). To gather specific data about the views of young people regarding these issues, ICCS 2022 includes a question about students' acceptance of restrictions imposed by governments during a national emergency.

A more enduring aspect of views of political systems has been trust in civic institutions (Torney et al., 1975; Torney-Purta et al., 2001). ICCS 2009 and ICCS 2016 showed that students tended to express the lowest levels of trust in political parties and the highest levels of trust in courts of justice (Schulz et al., 2010, 2018). Furthermore, in countries with relatively high levels of perceived corruption, and low scores on indices of government efficiency, students with higher levels of civic knowledge expressed less trust in civic institutions, while positive correlations between civic knowledge and trust were recorded in countries with low indices of corruption (Lauglo, 2013). Comparisons between ICCS 2009 and 2016 showed increases in trust in many countries (Schulz et al., 2018).

In recent years, there has been concern about the apparent decline in trust in civic institutions as well as a recognition of variations in how much trust people place in different civic institutions (see Witschge et al., 2019). Furthermore, the association of trust in civic institutions with civic knowledge and understanding differed between countries (Lauglo, 2013). Trust and knowledge were positively associated in countries with low levels of perceived corruption but the reverse was evident in countries with high levels of perceived corruption (Lauglo, 2013).

5.2.2 Attitudes to Equal Rights in Society

Studying attitudes to the civic rights and responsibilities of different groups of citizens has been an enduring feature of previous IEA studies of civic and citizenship education (Blaskó et al., 2020). This feature has assumed even greater importance in contemporary societies, many of which have become far more diverse in recent times. Three aspects of equality and equal rights have featured in previous studies of civic and citizenship: education, gender, migration status, and ethnicity (Schulz et al., 2018).

Attitudes toward women's rights formed part of the IEA civic education studies in 1971 and 1999 (Torney et al., 1975; Torney-Purta et al., 2001). ICCS 2009 measured the endorsement of gender equality and showed that large majorities agreed with the positive, and disagreed with the negative, statements about gender equality (Schulz et al., 2010). Support for gender equality was associated with student characteristics, and female students expressed more support for gender equality than male students (Sandoval-Hernández et al. 2018). ICCS 2016 results, making use of the same item set as in the previous cycle, showed increased endorsement of gender equality in some countries as well as persisting differences across participating countries (Schulz et al., 2018; Schulz & Ainley, 2018).

Assessing beliefs about rights for immigrants has become a stronger focus of research in recent years, possibly because of increased levels of migration between countries (Heath & Richards, 2016). Using similar item sets as in CIVED 1999 (Torney-Purta et al., 2001), ICCS 2009 measured the endorsement of rights for immigrants and found that majorities among lower-secondary students tended to be overwhelmingly in favor of equal rights for immigrants (Schulz et al., 2010). However, support was associated with student characteristics like gender or immigrant background, with female and immigrant students expressing more positive attitudes (Munck et al., 2018; Sandoval-Hernández et al. 2018; Schulz et al., 2010). ICCS 2016 showed similar levels of support across European countries as in ICCS 2009 (Losito et al., 2018).

Students' beliefs about equal rights for all ethnic groups in a country have been investigated since CIVED 1999 (Torney-Purta et al., 2001). ICCS 2009 measured this construct with similar statements reflecting attitudes toward equal rights for all ethnic groups and showed typically high levels of agreements as well as variations across countries (Sandoval-Hernández et al. 2018; Schulz et al., 2010). ICCS 2016 used the same set of items to measure this construct and found that there were statistically significant increases in support for equal rights among lower-secondary students in most countries (Schulz, 2018; Schulz et al., 2018; Schulz & Ainley, 2018).

5.2.3 Civic Responsibilities, Global Citizenship, and the Environment

IEA studies of civic and citizenship education have investigated students' perceptions of the importance of different types of behaviors for "good citizenship." During the 1970s and 1980s, a distinction was introduced between "conventional" (voting, running for office) and "unconventional" (social movement) citizenship activities (grass-root campaigns, protest activities) (Barnes & Kaase, 1979). Like earlier IEA studies of civic and citizenship education (Torney et al., 1975; Torney-Purta et al., 2001), ICCS 2009 measured students' perceptions of the importance of different types of behaviors for good citizenship and identified subdimensions concerned with conventional and with social-movement-related citizenship behavior (Schulz et al., 2010). Data from other studies supported similar distinctions in views of good citizenship (Abs, 2013; Kennedy, 2006).

Based on data from CIVED 1999 and ICCS 2009, Hooghe and Oser (2015) observed an increase in the support of engaged citizenship norms while duty-based citizenship norms became less widely supported. Following Kennedy's (2006) distinction between active (conventional and social-movement-related) and passive citizenship elements (national identity, patriotism, and loyalty), ICCS 2016 used additional items to measure more passive forms of citizenship behavior and incorporated behaviors that reflected personally responsible citizenship (Schulz et al., 2018). Re-analyses of ICCS 2016 data also showed considerable variation across and within countries in terms of students' citizenship norms (Treviño et al., 2021).

In addition to asking students' views about the importance of citizenship behavior related to the two original dimensions (conventional and social-movement-related citizenship), ICCS 2022 investigated students' perceptions of the importance of globally oriented citizenship. UNESCO (2015) describes global citizenship as, "a sense of belonging to a broader community and common humanity. It emphasizes political, economic, social, and cultural interdependency and interconnectedness between the local, the national and the global" (p. 14). ICCS 2016 investigated students' perceptions of the importance of global citizenship (Schulz et al., 2018). In ICCS 2022, global citizenship education (GCED) related content is more explicitly recognized within its assessment framework and there was an increased emphasis in its assessment material (Schulz et al., 2023).

ICCS 2022 investigated the extent of student support for actions to protect the environment through sustainable development. Education for sustainable development (ESD) has been frequently considered in conjunction with GCED as an aspect of civic responsibility (Veugelers, 2011). The promotion of sustainable behaviors, together with the development of knowledge, skills, and values, is one of the most relevant aspects of ESD (UNESCO, 2005). As such, it is increasingly recognized as an important part of education (Pizmony-Levy, 2011; Smart et al., 2019; UNESCO, 2005, 2015) and UNESCO's Strategic Development Goal 4 includes Target 4.7 (UNESCO, 2017):

> *to ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development.*

ESD grew out of more than five decades of developments of environmental science and environmental studies in schools (Gough, 2013; Wals, 2012). Those developments reflected increased attention to pre-existing, growing, and newly emerging environmental challenges (including the potential impact of climate change) (Wals & Benavot, 2017). School curricula increasingly included aspects of environmental studies (Benavot, 2014). However, other cross-national research has drawn attention to the complexities of implementing ESD content in secondary education (Taylor et al., 2019). Environmental sustainability received increased attention with the emergence of climate change as a major concern regarding the sustainability of human development, although there were variations across and within countries (Fagan & Huang, 2019). Consequently, there have been calls to strengthen ESD in national school curricula to provide young people with better knowledge about, and better understanding of, the causes and consequences of climate change (Mochizuki & Bryan, 2015). Climate change is now included in education programs in formal and informal settings (McKenzie, 2021; OECD [Organisation for Economic Co-operation and Development], 2022).

Some of these developments in school programs have been linked to civic and citizenship education. Using data from ICCS 2016, Kessler (2021) suggested that promoting institutional trust and civic knowledge may increase student awareness of climate change to a greater degree than environmental education programs.

The ICCS 2016 framework included *environmental sustainability in civic and citizenship education* as one of three areas identified to broaden the scope of the second ICCS cycle. ICCS 2022 incorporated the broader notion of sustainability that encompasses content associated with environmental, social, and economic sustainability, with the aim of increasing the emphasis on ESD and the amount of ESD-related content compared to previous cycles of ICCS (Schulz et al., 2023).

Another approach to investigating sustainability, including environmental protection, in the context of global citizenship has been to ask about perceptions of global issues including poverty, hunger, wars, overpopulation, and the environment (Holden, 2007; Rubin, 2002). In ICCS 2016, students were asked to rate the seriousness of a broad range of threats to key aspects of civilization. More than half the students considered pollution, terrorism, water shortages, food shortages, infectious diseases, climate change, and poverty as threats to the world's future. These aspects are also reflected in writings concerned with global education that aim to broaden student perspectives beyond national contexts (Burnouf, 2004; Hicks, 2003). Overall, these ratings provided an indication of student optimism or pessimism, and responses to individual items provided a perspective on profiles of concern. Results from ICCS 2016 showed that concerns about these issues tended to be influenced by local contexts in participating countries (Schulz et al., 2018).

5.3 Views of Political Systems and Democratic Institutions

The ICCS 2022 student questionnaire asked about students' views of their political systems, their beliefs about threats to democracy, their views about restrictions during national emergencies, and their trust in civic institutions.

5.3.1 Students' Views of Their Countries' Political Systems

Students indicated their agreement ("strongly agree," "agree," "disagree," or "strongly disagree") with a set of positively and negatively worded statements regarding the political system of their country of residence: "Democracy may have some problems but it is still the best form of government for country of test"; "the political system of country of test works well"; "members of parliament/congress are good at representing the interests of young people"; "members of parliament/congress generally represent the interests of people in their country well"; "members of parliament/congress treat all people in society fairly"; "members of parliament/congress do not care enough about the wishes of the people"; "political leaders have too much power compared to other people"; "members of parliament/congress usually forget the needs of the people who voted for them"; and "political decisions should more often be based on advice from scientific experts."

On average, almost three quarters (74%) of students agreed that democracy is still the best form of government for their country (ranging from 47% to 91%) and just above half of the students (55%) expressed agreement (i.e., either strongly agreed or agreed) that their political system works well (ranging from 25% to 90%) (Table 5.1). While 55% of students agreed that their elected representatives generally represented the interests of people in their country well (ranging from 35% to 73%), only two-fifths agreed that that members of parliament were good at representing the interests of young people (44% on average, ranging from 25% to 61%) and that they treated all people in society fairly (45% on average, ranging from 27% to 71%).

In response to the negatively worded statements, three fifths (62%) of the students agreed that their political representatives did not care enough about the wishes of the people (ranging from 30% to 78%), seven-tenths agreed that political leaders have too much power compared to other people (on average 70%, ranging from 52% to 83%) and that elected representatives usually forget the needs of their voters (on average 71%, ranging from 49% to 82%). Interestingly, and possibly reflecting the context of various responses to the COVID-19 pandemic, nearly three quarters (73%) of the students agreed that political decisions should be based on advice from scientific experts more often (ranging from 63% to 85%).

We derived two scales from the student responses to the whole set of items, excluding the two items about democracy being the best form of government and political decisions based on scientific advice. The other positively worded items were used to derive a scale reflecting *students' satisfaction with their political system* (average value of Cronbach's alpha = 0.78), while responses to the negatively worded items provided information to derive a scale measuring *students' critical views of their political system* (average value of Cronbach's alpha = 0.63).

National scale scores representing students' satisfaction with the political system were significantly[1] higher than, and at least three scale points above, the ICCS 2022 average in Chinese Taipei, the Netherlands, Norway, and Sweden (Table 5.2). These scores were significantly lower, and at least three scale points below average, in Croatia, Poland, Romania, and the Slovak Republic. Examining the scale scores representing critical views of the political system, scores were significantly higher, and at least three scale points above average, in Croatia and Romania. The lowest national scale scores were recorded in the Netherlands, Norway, and Sweden.

The results suggest that satisfaction with the political system was higher among lower-secondary students in Chinese Taipei, the Netherlands, Norway, and Sweden, while at the same time young people held less critical views of the political system than on average across participating countries. Conversely, students from Croatia, Poland, Romania, and the Slovak Republic expressed less satisfaction with the political system and held more critical views of the political system than on average.

5.3.2 Perceived Threats to Democracy

The ICCS 2022 questionnaire asked students to rate the extent to which different possible situations in society would be "bad for democracy" ("very bad," "quite bad," "somewhat bad," or "not bad at all"). On average, approximately four fifths of the students indicated that they viewed it as very bad or quite bad for democracy when "the government blocks social media to prevent users from criticizing its policies" (81% on average, and ranging from 72% to 94%) and when "the government closes newspapers, radio and television stations that have been critical of its policies" (79% on average, and ranging from 70% to 92%) (Table 5.3).

Approximately three quarters of the students regarded it as very bad or quite bad for democracy when "the government controls all newspapers, radio, and television stations in a country" (74% on average and ranging from 64% to 85%) and

[1]When presenting tests of statistical significance for differences or coefficients in this chapter, we annotate results that were at $p < 0.05$.

Table 5.1 Students' views of the political system in their country

Country	Percentages of students agreeing or strongly agreeing with:								
	Democracy may have some problems but it is still the best form of government for country of test	The political system of country of test works well	Members of parliament/ congress are good at representing the interests of young people	Members of parliament/congress generally represent the interests of people in their country well	Members of parliament/ congress treat all people in society fairly	Members of parliament/ congress do not care enough about the wishes of the people	Political leaders have too much power compared to other people	Members of parliament/ congress usually forget the needs of the people who voted for them	Political decisions should more often be based on advice from scientific experts
Bulgaria	64 (1.3) ▼	34 (1.5) ▼	39 (1.4) ▽	41 (1.4) ▼	33 (1.3) ▼	73 (0.9) ▲	75 (1.2) △	75 (1.2) △	76 (1.0) △
Chinese Taipei	90 (0.6) ▲	73 (1.0) ▲	61 (0.9) ▲	72 (1.0) ▲	67 (1.0) ▲	51 (1.1) ▼	60 (0.9) ▼	62 (0.9) ▽	63 (1.0) ▽
Colombia	72 (1.2)	48 (1.4) ▽	57 (1.6) ▲	55 (1.5)	50 (1.5) △	68 (0.8) △	75 (0.8) △	77 (0.9) △	71 (1.0)
Croatia[1]	75 (1.0)	36 (1.3) ▼	32 (1.1) ▼	35 (1.1) ▼	29 (1.2) ▼	75 (1.0) ▲	80 (1.1) △	81 (1.1) △	72 (1.0)
Cyprus	54 (1.0) ▼	44 (1.1) ▼	45 (0.9)	54 (1.1)	39 (1.0) ▽	61 (1.1)	71 (0.8)	70 (1.0)	70 (1.0) ▽
Estonia	80 (1.1) △	69 (1.3) ▲	47 (1.2) △	68 (1.0) ▲	50 (1.2) △	52 (1.2) ▼	60 (1.5) ▼	61 (1.2) ▼	75 (1.1)
France	81 (0.8) △	63 (1.2) △	53 (1.2) △	63 (1.1) △	42 (1.1) ▽	74 (0.8) ▲	73 (0.9) △	78 (0.7) △	70 (0.9) ▽
Italy	83 (1.0) △	44 (1.4) ▼	36 (1.0) ▽	52 (1.0) ▽	43 (1.0) ▽	70 (1.5) △	71 (1.0)	77 (0.8) △	68 (1.0) ▽
Latvia[1]	47 (1.2) ▼	47 (1.1) ▽	31 (0.9) ▼	45 (1.0) ▼	38 (0.9) ▽	68 (1.0) △	74 (1.1) △	69 (0.9)	78 (0.9) △
Lithuania	78 (1.0) △	63 (1.0) △	40 (1.1) ▽	50 (1.1) ▽	40 (1.1) ▽	67 (0.9) △	71 (1.2)	75 (0.8) △	81 (0.9) △
Malta	76 (1.2)	61 (1.9) △	56 (1.5) ▲	64 (1.3) △	52 (2.1) △	54 (1.2) ▽	73 (1.6)	67 (0.9) ▽	65 (1.4) ▽
Netherlands†	81 (1.2) △	78 (1.4) ▲	54 (1.4) △	73 (1.3) ▲	59 (1.6) ▲	30 (1.0) ▼	56 (1.3) ▼	49 (1.3) ▼	68 (1.1) ▽
Norway (9)[1]	91 (0.5) ▲	90 (0.6) ▲	61 (0.9) ▲	73 (0.8) ▲	71 (0.8) ▲	42 (0.8) ▼	56 (0.9) ▼	63 (0.8) ▽	76 (0.7) △
Poland	73 (0.8)	34 (1.1) ▼	25 (0.9) ▼	48 (1.1) ▽	29 (1.0) ▼	72 (0.8) △	75 (0.9) △	79 (0.9) △	79 (0.8) △
Romania	71 (2.0)	42 (2.3) ▼	31 (2.5) ▼	42 (1.3) ▼	27 (1.9) ▼	78 (1.8) ▲	81 (1.5) ▲	82 (1.7) ▲	85 (1.1) ▲
Serbia	62 (1.3) ▼	53 (1.4)	46 (1.3)	51 (1.5) ▽	44 (1.4)	60 (1.0)	73 (0.9) △	70 (1.1)	64 (1.6) ▽
Slovak Republic	66 (1.3) ▽	25 (1.3) ▼	29 (1.1) ▼	40 (1.4) ▼	29 (1.3) ▼	63 (1.3)	76 (0.9) △	78 (1.0) △	77 (1.1) △
Slovenia	69 (1.1) ▽	58 (1.1) △	45 (1.1)	56 (1.1)	44 (1.0)	73 (0.9) ▲	73 (0.9) △	73 (0.7) △	65 (1.0) ▽
Spain	77 (1.1) △	58 (1.2) △	43 (1.1)	51 (1.0) ▽	46 (1.0)	69 (0.8) △	83 (0.9) ▲	74 (0.9) △	76 (0.8) △
Sweden[1]	87 (0.9) ▲	79 (1.1) ▲	52 (1.3) △	73 (1.3) ▲	64 (1.5) ▲	44 (1.0) ▼	52 (1.1) ▼	57 (1.1) ▼	75 (1.0) △
ICCS 2022 average	74 (0.3)	55 (0.3)	44 (0.3)	55 (0.3)	45 (0.3)	62 (0.2)	70 (0.2)	71 (0.2)	73 (0.2)
Countries not meeting sample participation requirements									
Brazil	75 (1.0)	45 (1.0)	54 (1.0)	51 (1.1)	39 (0.8)	64 (0.8)	74 (1.0)	75 (0.7)	74 (0.9)
Denmark	85 (0.8)	90 (0.6)	54 (1.0)	70 (1.0)	57 (1.1)	43 (1.2)	55 (1.1)	53 (0.9)	68 (1.1)
German benchmarking participant meeting sample participation requirements									
North Rhine-Westphalia	82 (1.0) △	76 (1.0) ▲	45 (1.2)	69 (1.2) ▲	60 (1.4) ▲	52 (1.0) ▼	68 (1.0) ▽	58 (1.0) ▼	79 (0.7) △
German benchmarking participant not meeting sample participation requirements									
Schleswig-Holstein	85 (1.2)	73 (1.6)	41 (1.3)	68 (1.3)	57 (1.3)	54 (2.0)	68 (1.3)	57 (1.6)	79 (1.4)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

Table 5.2 National average scale scores for students' satisfaction with and critical views of the political system

Country	Satisfaction with the political system: Average scores in 2022	Satisfaction with the political system: 35 40 45 50 55 60 65	Critical views of the political system: Average scores in 2022	Critical views of the political system: 35 40 45 50 55 60 65	Correlation between scales
Bulgaria	47 (0.4) ▽		52 (0.3) △		0.03 (0.04)
Chinese Taipei	55 (0.2) ▲		47 (0.2) ▽		**0.07** (0.03)
Colombia	52 (0.4) △		52 (0.2) △		**0.25** (0.03)
Croatia[1]	46 (0.2) ▼		53 (0.3) ▲		**-0.29** (0.05)
Cyprus	48 (0.2) ▽		49 (0.2) ▽		**0.18** (0.03)
Estonia	52 (0.2) △		47 (0.2) ▽		**-0.17** (0.04)
France	51 (0.2) △		52 (0.2) △		**-0.08** (0.04)
Italy	49 (0.2) ▽		51 (0.3) △		**-0.27** (0.03)
Latvia[1]	48 (0.2) ▽		50 (0.3)		-0.03 (0.04)
Lithuania	49 (0.2) ▽		51 (0.2) △		**-0.12** (0.04)
Malta	52 (0.4) △		49 (0.3) ▽		-0.06 (0.08)
Netherlands†	53 (0.3) ▲		44 (0.2) ▼		-0.01 (0.05)
Norway (9)[1]	57 (0.2) ▲		47 (0.2) ▼		0.06 (0.03)
Poland	46 (0.2) ▼		51 (0.2) △		**-0.39** (0.02)
Romania	46 (0.5) ▼		55 (0.4) ▲		**-0.29** (0.04)
Serbia	50 (0.3)		50 (0.3)		-0.02 (0.03)
Slovak Republic	45 (0.3) ▼		51 (0.2) △		-0.06 (0.04)
Slovenia	50 (0.2)		51 (0.2) △		**0.11** (0.04)
Spain	50 (0.2)		52 (0.2) △		-0.05 (0.03)
Sweden[1]	54 (0.3) ▲		45 (0.2) ▼		**0.16** (0.04)
ICCS 2022 average	50 (0.1)		50 (0.1)		**-0.05** (0.01)
Countries not meeting sample participation requirements					
Brazil	50 (0.2)		51 (0.2)		**0.15** (0.02)
Denmark	54 (0.2)		46 (0.2)		**-0.14** (0.03)
German benchmarking participant meeting sample participation requirements					
North Rhine-Westphalia	53 (0.2) △		48 (0.2) △		**-0.14** (0.03)
German benchmarking participant not meeting sample participation requirements					
Schleswig-Holstein	52 (0.3)		47 (0.3)		-0.05 (0.06)

Notes:
Score averages which are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 3 score points below ICCS 2022 average

Average score for expected legal activities +/- confidence interval
Average score for expected illegal activities +/- confidence interval

On average across items, students with a score in the range with this color have more than 50% probablity to indicate:

	Disagreement
	Agreement

Table 5.3 National percentages and scale scores indicating students' beliefs about threats to democracy

Country	Percentages of students who view the following situations as very or quite bad for democracy: The government blocks social media to prevent users from criticizing its policies (%)	The government closes newspapers, radio and television stations that have been critical of its policies (%)	The government controls all newspapers, radio and television stations in a country (%)	The government breaks a law to fulfil a promise they made before they were elected (%)	Only government supporters are appointed as judges (%)	Opposition leaders are arrested because they openly criticized a new law (%)	Political leaders give government jobs to family members (%)	Average scale scores indicating students' beliefs about threats to democracy
Bulgaria	74 (1.1) ▽	71 (1.0) ▽	69 (1.2) ▽	63 (1.1) ▼	57 (1.2) ▼	55 (1.1) ▼	61 (1.2) ▽	48 (0.2) ▽
Chinese Taipei	86 (0.6) △	84 (0.7) △	88 (0.7) ▲	86 (0.7) ▲	89 (0.7) ▲	79 (0.8) ▲	74 (0.9) △	57 (0.3) ▲
Colombia	72 (1.3) ▽	72 (1.1) ▽	65 (1.3) ▽	66 (0.9) ▽	56 (1.2) ▼	56 (1.1) ▼	42 (1.1) ▼	46 (0.3) ▼
Croatia[1]	88 (0.7) △	85 (0.9) △	84 (0.9) ▲	76 (0.8) △	81 (0.8) ▲	68 (1.1)	72 (1.1) △	52 (0.2) △
Cyprus	75 (1.0) ▽	73 (0.9) ▽	64 (1.1) ▼	70 (0.9) ▽	68 (1.0) ▽	62 (0.9) ▽	59 (0.9) ▽	48 (0.2) ▽
Estonia	82 (1.2)	81 (1.2) △	67 (1.2) ▽	74 (1.0)	67 (1.0) ▽	69 (1.3)	60 (1.4) ▽	49 (0.3)
France	79 (0.9) ▽	77 (0.9)	72 (0.9)	66 (1.0) ▽	66 (1.0) ▽	59 (1.0) ▽	64 (0.9)	48 (0.2) ▽
Italy	87 (0.9) △	88 (0.8) △	67 (1.8) ▽	83 (0.8) ▲	73 (1.1) △	77 (0.9) △	67 (1.2)	50 (0.3)
Latvia[1]	75 (1.1) ▽	70 (1.1) ▽	66 (1.1) ▽	62 (1.1) ▼	58 (1.0) ▼	56 (1.0) ▼	61 (1.3) ▽	47 (0.2) ▽
Lithuania	78 (1.0) ▽	73 (1.0) ▽	73 (1.1)	63 (1.0) ▽	58 (1.1) ▼	60 (0.9) ▽	58 (0.9) ▽	47 (0.2) ▽
Malta	79 (1.1) ▽	74 (1.5) ▽	72 (1.2)	72 (1.0)	70 (1.3)	68 (1.4)	42 (1.7) ▼	48 (0.3) ▽
Netherlands†	82 (1.1)	77 (1.2)	65 (1.3) ▽	71 (1.2) ▽	73 (1.1) △	70 (1.0) △	75 (1.2) ▲	50 (0.3)
Norway (9)[1]	82 (0.7)	79 (0.7)	80 (0.6) △	76 (0.7) △	73 (0.9) △	76 (0.7) △	56 (0.8) ▽	50 (0.2)
Poland	94 (0.5) ▲	92 (0.5) ▲	88 (0.7) ▲	76 (0.7) △	84 (0.9) ▲	76 (0.9) △	83 (0.8) ▲	54 (0.2) ▲
Romania	87 (1.4) △	84 (1.5) △	81 (1.7) △	83 (1.0) △	74 (1.9) △	69 (1.3)	77 (1.3) ▲	51 (0.3) △
Serbia	76 (1.0) ▽	73 (1.3) ▽	70 (1.2) ▽	75 (1.1) △	66 (1.2) ▽	62 (1.1) ▽	67 (1.1) △	49 (0.3) ▽
Slovak Republic	83 (1.1)	77 (1.0)	71 (1.1) ▽	69 (1.0) ▽	69 (1.0)	63 (1.2) ▽	69 (1.1) △	49 (0.2) ▽
Slovenia	79 (0.8) ▽	76 (0.9) ▽	73 (0.8)	78 (0.8) △	69 (0.8)	67 (0.9)	67 (1.0)	50 (0.2)
Spain	82 (0.9)	82 (0.9) △	76 (0.9) △	64 (1.1) ▽	66 (1.2) ▽	63 (1.0) ▽	68 (1.1) △	50 (0.2)
Sweden[1]	90 (1.0) △	89 (0.9) △	85 (0.9) ▲	86 (0.8) ▲	82 (0.9) ▲	84 (0.9) ▲	76 (0.9) ▲	54 (0.3) ▲
ICCS 2022 average	81 (0.2)	79 (0.2)	74 (0.3)	73 (0.2)	70 (0.2)	67 (0.2)	65 (0.3)	50 (0.1)
Countries not meeting sample participation requirements								
Brazil	81 (0.9)	78 (0.9)	77 (0.9)	64 (0.8)	71 (0.9)	62 (1.1)	57 (0.9)	49 (0.3)
Denmark	88 (0.8)	86 (0.9)	86 (0.8)	76 (0.9)	72 (1.0)	73 (0.8)	76 (0.9)	52 (0.2)
German benchmarking participant meeting sample participation requirements								
North Rhine-Westphalia	83 (0.7) △	78 (0.8)	70 (1.0) ▽	74 (0.9)	65 (1.0) ▽	69 (0.9) △	54 (1.1) ▼	49 (0.2) ▽
German benchmarking participant not meeting sample participation requirements								
Schleswig-Holstein	88 (1.3)	83 (1.4)	77 (1.7)	76 (1.6)	70 (1.2)	69 (1.3)	58 (1.5)	50 (0.3)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 10 percentage or 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage or 3 score points below ICCS 2022 average

when "the government breaks a law to fulfil a promise they made before they were elected" (73% on average and ranging from 62% to 86%). Seven tenths of the students regarded it as very bad or quite bad for democracy when "only government supporters are appointed as judges" (70% on average and ranging from 56% to 89%).

Two thirds of the students regarded it as very bad or quite bad for democracy when "opposition leaders are arrested because they openly criticized a new law" (67% on average and ranging from 55% to 84%) and when "political leaders give government jobs to family members" (65% on average and ranging from 42% to 83%).

We concluded from these responses that the lower secondary school students in ICCS 2022, on average, had reasonably clear and consistent understandings of the essential tenets of democratic government. However, we did notice a range of responses across countries that might indicate national differences in what is expected of democratic government. Especially for the item related to nepotism in government (political leaders giving jobs to family members) we observed more variation across countries in student ratings, and in two countries (Colombia and Malta) less than half of students rated this as very or quite bad for democracy.

These items were used to derive a scale with high average reliability across countries (Cronbach's alpha = 0.80), where higher scale scores reflect higher levels of students' recognition of threats to democracy. The highest scales scores (more than three points and significantly above the ICCS 2022 average) were recorded in Chinese Taipei, Poland, and Sweden, while the lowest average scale score was observed in Colombia.

5.3.3 Associations of Views of the Political System with Civic Knowledge

The three scales reflecting views of the political system and recognition of threats to democracy were examined regarding their relationships with students' levels of civic knowledge (comparing below Level B with at or above Level B).

There was a moderately strong positive association between scores reflecting recognition of threats to democracy and levels of civic knowledge (Table 5.4). On average across ICCS countries, students with civic knowledge scores at or above Level B scored almost seven scale points higher on the scale than students with civic knowledge scores below Level B. In two countries the difference was 10 scale points or more.

The associations of civic knowledge with the scale reflecting critical views of the political system appeared to be more complex. In 14 countries and the benchmarking entity North Rhine-Westphalia, students with civic knowledge scores at or above Level B scored higher on the scale than students with civic knowledge scores below Level B. In other words, in these countries, more knowledgeable students were more critical of their political systems. In four countries the reverse was observed and in two countries there was no significant difference between the two civic knowledge groups. On average the difference was less than two scale points. Understanding these differences might be informed by more detailed analyses of characteristics of the political systems in which students reside. In countries where institutions are widely perceived as dysfunctional, students with higher levels of civic knowledge are more critically of those institutions. This pattern was also observed regarding the relationship between civic knowledge and trust in civic institutions (see Lauglo, 2013).

On average across ICCS countries, students with civic knowledge scores at or above Level B scored less than three scale points lower on the scale reflecting satisfaction with the political system than students with civic knowledge scores below Level B. This result suggests that more knowledgeable students are less inclined to view their political systems favorably. However, there are different patterns across ICCS countries. In 15 countries and the benchmarking entity North Rhine-Westphalia, students with civic knowledge scores at or above Level B scored lower on the scale than students with civic knowledge scores below Level B. In two countries the reverse was true and in three countries we observed no significant difference.

Results from ICCS 2022 confirm the results of other research that students with higher levels of civic knowledge and understanding tend to express more critical views regarding the quality of the political system of their country.

5.3.4 Restrictions on Freedom in National Emergencies

One contemporary issue included in ICCS 2022 concerned beliefs about the extent to which democratic governments should be able to impose restrictions on individual freedom during national emergencies, such as the COVID-19 pandemic. While people are accorded freedoms in the United Nations Universal Declaration of Human Rights (United Nations, 1948), it is also argued that societies have a responsibility to actively protect the freedom of their members and to support the protection of freedom in all communities, including those that are not their own. According to this argument, there are situations where

Table 5.4 National average scores for students' satisfaction and critical views of the political system as well as their beliefs about threats to democracy by students' level of civic knowledge

Country	Students' satisfaction with the political system: Civic knowledge below Level B (below 479)	Students' satisfaction with the political system: Civic knowledge at or above Level B (479 and above)	Students' critical views of the political system: Civic knowledge below Level B (below 479)	Students' critical views of the political system: Civic knowledge at or above Level B (479 and above)	Students' beliefs about threats to democracy: Civic knowledge below Level B (below 479)	Students' beliefs about threats to democracy: Civic knowledge at or above Level B (479 and above)
Bulgaria	**50** (0.6)	43 (0.3)	50 (0.4)	**55** (0.3)	45 (0.3)	**51** (0.3)
Chinese Taipei	**58** (0.7)	54 (0.2)	**50** (0.7)	47 (0.2)	45 (0.9)	**59** (0.3)
Colombia	**55** (0.4)	47 (0.4)	50 (0.3)	**54** (0.3)	44 (0.3)	**49** (0.3)
Croatia[1]	**48** (0.5)	46 (0.2)	50 (0.5)	**54** (0.3)	48 (0.4)	**53** (0.2)
Cyprus	**49** (0.4)	47 (0.4)	48 (0.3)	**51** (0.3)	46 (0.3)	**51** (0.3)
Estonia	52 (0.4)	51 (0.2)	48 (0.5)	47 (0.2)	43 (0.4)	**51** (0.3)
France	**52** (0.4)	50 (0.3)	52 (0.3)	52 (0.2)	44 (0.4)	**50** (0.2)
Italy	**53** (0.5)	47 (0.3)	50 (0.6)	**52** (0.3)	45 (0.4)	**53** (0.2)
Latvia[1]	48 (0.3)	48 (0.3)	49 (0.4)	**52** (0.3)	44 (0.3)	**50** (0.3)
Lithuania	**51** (0.4)	48 (0.3)	50 (0.4)	**51** (0.3)	43 (0.3)	**49** (0.2)
Malta	**54** (0.5)	50 (0.5)	48 (0.3)	**50** (0.3)	44 (0.4)	**51** (0.3)
Netherlands†	52 (0.5)	**54** (0.3)	**46** (0.5)	44 (0.3)	45 (0.5)	**53** (0.3)
Norway (9)[1]	56 (0.3)	**57** (0.2)	**49** (0.3)	46 (0.2)	45 (0.4)	**52** (0.2)
Poland	**49** (0.5)	45 (0.2)	49 (0.4)	**52** (0.2)	48 (0.3)	**56** (0.2)
Romania	**49** (0.6)	44 (0.5)	52 (0.5)	**57** (0.5)	48 (0.3)	**53** (0.4)
Serbia	**51** (0.4)	48 (0.4)	49 (0.3)	**52** (0.3)	47 (0.4)	**52** (0.4)
Slovak Republic	**48** (0.5)	44 (0.3)	49 (0.4)	**52** (0.3)	45 (0.3)	**52** (0.3)
Slovenia	**51** (0.4)	49 (0.3)	49 (0.3)	**52** (0.2)	46 (0.3)	**53** (0.2)
Spain	**52** (0.4)	49 (0.2)	50 (0.4)	**53** (0.2)	45 (0.3)	**52** (0.2)
Sweden[1]	53 (0.7)	54 (0.2)	**47** (0.6)	45 (0.2)	46 (0.7)	**56** (0.2)
ICCS 2022 average	**52** (0.1)	49 (0.1)	49 (0.1)	**51** (0.1)	45 (0.1)	**52** (0.1)
Countries not meeting sample participation requirements						
Brazil	**53** (0.3)	47 (0.4)	50 (0.2)	**53** (0.3)	46 (0.3)	**53** (0.3)
Denmark	53 (0.5)	55 (0.2)	**47** (0.4)	45 (0.2)	46 (0.4)	**53** (0.2)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	**54** (0.3)	53 (0.2)	**48** (0.3)	47 (0.2)	44 (0.3)	**51** (0.2)
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	53 (0.5)	52 (0.3)	48 (0.8)	47 (0.4)	44 (0.6)	**52** (0.3)

Notes:
Score averages which are significantly larger $p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups not statistically significant at $p < 0.05$.

certain freedoms might have to be restricted when they conflict with others (for example, to prevent hate speech aimed at the incitement of hatred toward others) or when this is necessary to preserve the safety of society. To gauge students' views of these issues, the ICCS 2022 questionnaire asked respondents to rate their agreement ("strongly agree," "agree," "disagree," or "strongly disagree") that governments should have the right to impose different restrictions in times of national emergencies such as the COVID-19 pandemic.

We examined the percentages of students who agreed or strongly agreed with a set of statements that the government should have the right to take different actions during a national emergency (Table 5.5).

The statements with which most of the students agreed or strongly agreed were (average percentage agreement is shown in parentheses): "Fine people whose behavior might put others at risk" (77%); "close schools" (67%); "impose travel restrictions" (61%); "prohibit larger gatherings of people at sporting and entertainment events" (61%); and "postpone meetings of the [parliament/congress]"[2] (53%).

The statements with which fewer than half of the students agreed or strongly agreed were: "Make peaceful protests, marches or rallies illegal" (45%); "close shops and businesses" (42%); "oblige people to provide information about their movements" (39%); and "make it illegal for people to leave their homes without sufficient cause" (35%). There appear to be considerable differences among countries in the level of agreement with these restrictions. We constructed a scale, based on these nine items, that measured *students' endorsement of restrictions in a national emergency* (average Cronbach's alpha = 0.79). We found that students' agreement with restrictions was highest (more than three score points above the ICCS 2022 average) in Chinese Taipei and Norway, while it was lowest (more than three points below average) in the Netherlands.

We investigated the associations of the scale scores reflecting acceptance of emergency restrictions with three student characteristics: civic knowledge (comparing scores at or above Level B with scores below Level B), socioeconomic background (above country average compared with below country average), and gender (female compared with male students).

On average, national average scale scores for students with civic knowledge at or above Level B were significantly higher than those with civic knowledge scores below Level B by nearly two scale points (Table 5.6). In 14 countries and the benchmarking entity North Rhine-Westphalia, national average scale scores for students with civic knowledge at or above Level B were significantly higher than those with civic knowledge scores below Level B). In one country the reverse was observed and in five countries there was no significant difference.

A similar pattern was observed in relation to socioeconomic background. National average scale scores for students of above average socioeconomic background were significantly higher than those of below average socioeconomic background by one scale point on average across countries. In 16 countries and the benchmarking entity North Rhine-Westphalia, national average scale scores for students of above average socioeconomic background were significantly higher than those of below average socioeconomic background. In one country the reverse was observed and in three countries we found no significant difference.

There were only small differences between female and male students in their acceptance of restrictions in a national emergency. In 10 countries and the benchmarking entity North Rhine-Westphalia there were small but significant differences with male students expressing more support than their female counterparts.

In summary, we found differences among countries in the level of acceptance of restrictions during a national emergency such as the COVID-19 pandemic. However, we found that acceptance of emergency restrictions was greater among students with higher levels of civic knowledge, those of higher socioeconomic background, and among male students.

5.3.5 Students' Trust in Civic Institutions

ICCS 2022 asked students to indicate how much they trusted different groups and institutions ("completely," "quite a lot," "a little," or "not at all") using an item set that was only slightly modified from the previous ICCS cycle, which enabled us to measure changes over time. However, it included two new additional items reflecting trust in scientists and the students' teachers.

When reviewing the results for four selected institutions, ICCS 2022 results show that, on average, the percentages of students recording complete or quite a lot of trust were highest for the courts of justice (66%), followed by the national government (53%), traditional media (50%), and parliament/congress (48%) (Table 5.7). On average, there were declines in trust in all four institutions between ICCS 2016 and 2022. The average declines were estimated as five percentage points for

[2]Expressions in angle brackets ([…]) indicate expressions in the English source version of survey instruments that were adapted to national contexts in the translated versions.

Table 5.5 National percentages and scale scores for endorsement of restrictions in national emergencies

Country	Percentages of students who agree or strongly agree with: Fine people whose behavior might put others at risk (%)	Close schools (%)	Impose travel restrictions (%)	Prohibit larger gatherings of people at sporting and entertainment events (%)	Postpone meetings of the parliament/ congress (%)	Make peaceful protests, marches or rallies illegal (%)	Close shops and businesses (%)	Oblige people to provide information about their movements (%)	Make it illegal for people to leave their homes without sufficient cause (%)	Average scale scores indicating students' endorsement of restrictions in a national emergency
Bulgaria	73 (1.2) ▽	56 (1.2) ▼	53 (1.1) ▽	54 (1.1) ▽	43 (1.1) ▽	44 (1.0)	40 (1.2)	38 (1.2)	35 (1.2)	49 (0.3) ▽
Chinese Taipei	85 (0.6) △	72 (0.9) △	70 (0.9) △	66 (1.0) △	75 (0.7) ▲	40 (0.9) ▽	48 (0.9) △	88 (0.6) ▲	38 (1.0) △	54 (0.2) ▲
Colombia	78 (1.0)	51 (1.0) ▼	66 (0.8) △	63 (1.1) △	62 (1.0) △	38 (1.0) ▽	49 (1.2) △	41 (1.2) △	36 (1.2)	51 (0.2) △
Croatia[1]	79 (1.0) △	64 (1.1) ▽	48 (1.2) ▼	54 (1.3) ▽	49 (1.1) ▽	47 (1.0)	27 (1.0) ▼	33 (0.8) ▽	26 (0.9) ▽	48 (0.2) ▽
Cyprus	70 (1.0) ▽	62 (1.1) ▽	48 (1.0) ▼	46 (0.9) ▼	43 (1.0) ▽	41 (0.9) ▽	35 (0.9) ▽	39 (1.0)	33 (0.9) ▽	48 (0.2) ▽
Estonia	77 (1.1)	74 (1.2) △	71 (1.3) ▲	68 (1.3) △	52 (1.0)	44 (0.9)	61 (1.2) ▲	31 (1.1) ▽	26 (1.2) ▽	51 (0.2) △
France	76 (0.8)	74 (0.8) △	64 (1.0) △	64 (0.9) △	56 (0.9) △	61 (1.0) ▲	43 (1.0)	36 (0.9) ▽	42 (1.0) △	51 (0.2) △
Italy	90 (0.9) ▲	64 (1.7)	67 (1.0) △	74 (1.0) ▲	52 (1.1)	41 (1.0) ▽	51 (1.1) △	33 (1.0) ▽	47 (1.2) ▲	51 (0.2) △
Latvia[1]	68 (1.0) ▽	61 (1.2) ▽	57 (1.2) ▽	59 (1.2)	44 (1.0) ▽	47 (1.0)	31 (1.0) ▼	36 (1.1) ▽	26 (0.9) ▽	48 (0.2) ▽
Lithuania	82 (0.9) △	76 (1.0) △	71 (1.1) ▲	71 (1.3) △	53 (1.1)	43 (0.9) ▽	39 (0.9) ▽	49 (1.0) ▲	40 (1.1) △	51 (0.2) △
Malta	82 (1.0) △	61 (1.0) ▽	70 (1.2) △	64 (1.3) △	63 (1.0) ▲	48 (1.0) △	45 (1.4) △	57 (0.9) ▲	32 (1.1) ▽	51 (0.2) △
Netherlands†	75 (1.1) ▽	61 (1.1) ▽	45 (1.2) ▼	49 (1.1) ▼	37 (1.1) ▼	39 (1.2) ▽	38 (1.3) ▽	29 (1.0) ▽	26 (0.9) ▽	47 (0.2) ▼
Norway (9)[1]	80 (0.6) △	82 (0.6) ▲	82 (0.7) ▲	71 (0.7) ▲	60 (0.8) △	59 (0.8) ▲	56 (0.9) ▲	29 (0.9) ▽	42 (0.8) △	53 (0.2) ▲
Poland	79 (0.8)	75 (1.0) △	59 (0.9) ▽	57 (0.9) ▽	61 (0.9) △	44 (1.0)	33 (0.8) ▽	29 (0.7) ▽	25 (0.7) ▽	49 (0.1) ▽
Romania	83 (2.3) △	56 (1.6) ▼	55 (2.7) ▽	60 (3.0)	47 (1.7) ▽	41 (2.0) ▽	33 (1.2) ▽	39 (1.8)	38 (2.1)	49 (0.5)
Serbia	69 (1.1) ▽	64 (1.0) ▽	44 (1.2) ▼	51 (1.1) ▽	42 (1.1) ▼	43 (1.1) ▽	30 (1.0) ▼	38 (1.3)	38 (1.1) △	48 (0.2) ▽
Slovak Republic	75 (1.0) ▽	71 (1.0) △	55 (1.1) ▽	55 (1.2) ▽	48 (1.1) ▽	42 (1.1) ▽	47 (1.3) △	31 (1.0) ▽	35 (1.1)	49 (0.2) ▽
Slovenia	61 (0.8) ▼	68 (1.1)	51 (1.0) ▽	49 (1.1) ▼	53 (0.8)	44 (0.9)	35 (1.0) ▽	34 (0.9) ▽	30 (0.9) ▽	48 (0.2) ▽
Spain	89 (0.8) ▲	71 (1.0) △	74 (1.0) ▲	67 (1.1) △	66 (0.9) ▲	48 (0.9) △	48 (0.9) △	38 (1.0)	49 (1.0) ▲	52 (0.2) △
Sweden[1]	75 (0.7) ▽	67 (1.1)	68 (1.1) △	70 (1.0) △	54 (1.0)	54 (1.1) △	44 (0.9) △	24 (0.9) ▼	32 (0.8) ▽	50 (0.3)
ICCS 2022 average	77 (0.2)	67 (0.2)	61 (0.3)	61 (0.3)	53 (0.2)	45 (0.2)	42 (0.2)	39 (0.2)	35 (0.2)	50 (0.1)
Countries not meeting sample participation requirements										
Brazil	78 (0.8)	56 (0.9)	73 (0.8)	73 (0.8)	57 (0.9)	55 (0.8)	55 (1.0)	36 (0.8)	49 (0.8)	53 (0.2)
Denmark	79 (0.8)	78 (0.7)	81 (0.9)	70 (1.1)	61 (0.9)	52 (1.1)	68 (1.1)	41 (1.1)	18 (0.8)	52 (0.2)
German benchmarking participant meeting sample participation requirements										
North Rhine-Westphalia	73 (1.0) ▽	69 (1.0)	72 (1.0) ▲	66 (1.2) △	50 (0.9) ▽	53 (0.8) △	53 (1.1) ▲	40 (1.1)	29 (1.0) △	51 (0.2) △
German benchmarking participant not meeting sample participation requirements										
Schleswig-Holstein	74 (1.7)	68 (1.1)	78 (1.5)	72 (1.5)	55 (1.6)	52 (1.9)	58 (1.7)	42 (1.3)	31 (1.4)	51 (0.3)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 10 percentage or 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage or 3 score points below ICCS 2022 average

Table 5.6 National average scale scores indicating students' endorsement of restrictions in a national emergency by gender, socioeconomic background, and level of civic knowledge

Country	Scale score average by gender group: Male students	Scale score average by gender group: Female students	Scale score average by socioeconomic background: Below country average	Scale score average by socioeconomic background: At or above country average	Scale score average by level of civic knowledge: Civic knowledge below Level B (below 479)	Scale score average by level of civic knowledge: Civic knowledge at or above Level B (479 and above)
Bulgaria	**49** (0.4)	48 (0.4)	**49** (0.4)	48 (0.3)	**49** (0.5)	48 (0.3)
Chinese Taipei	**55** (0.3)	54 (0.3)	54 (0.3)	54 (0.3)	52 (0.9)	**55** (0.2)
Colombia	**51** (0.4)	50 (0.3)	50 (0.4)	**52** (0.3)	50 (0.3)	51 (0.3)
Croatia[1]	48 (0.3)	49 (0.2)	48 (0.2)	**49** (0.2)	47 (0.5)	**49** (0.2)
Cyprus	**49** (0.4)	46 (0.3)	47 (0.3)	**48** (0.3)	48 (0.3)	48 (0.3)
Estonia	**51** (0.3)	50 (0.3)	50 (0.2)	**52** (0.3)	49 (0.5)	**51** (0.2)
France	**52** (0.3)	50 (0.3)	50 (0.3)	**52** (0.3)	49 (0.3)	**52** (0.2)
Italy	52 (0.3)	51 (0.3)	51 (0.3)	**52** (0.3)	50 (0.4)	**52** (0.2)
Latvia[1]	48 (0.3)	48 (0.2)	47 (0.3)	**49** (0.3)	47 (0.3)	**50** (0.2)
Lithuania	51 (0.3)	51 (0.3)	50 (0.3)	**53** (0.3)	49 (0.4)	**53** (0.3)
Malta	**52** (0.2)	51 (0.2)	51 (0.2)	**52** (0.2)	50 (0.3)	**53** (0.2)
Netherlands†	47 (0.3)	47 (0.4)	46 (0.3)	**48** (0.3)	45 (0.4)	**48** (0.3)
Norway (9)[1]	**53** (0.2)	53 (0.2)	52 (0.2)	**54** (0.2)	51 (0.4)	**54** (0.2)
Poland	49 (0.2)	49 (0.2)	49 (0.2)	**49** (0.2)	47 (0.3)	**49** (0.2)
Romania	50 (0.6)	49 (0.5)	48 (0.3)	**51** (0.7)	49 (0.4)	**50** (0.7)
Serbia	48 (0.3)	48 (0.3)	48 (0.3)	48 (0.3)	48 (0.4)	48 (0.3)
Slovak Republic	49 (0.3)	49 (0.3)	49 (0.4)	**50** (0.3)	49 (0.4)	50 (0.3)
Slovenia	48 (0.3)	48 (0.3)	48 (0.4)	48 (0.3)	47 (0.4)	48 (0.3)
Spain	**53** (0.3)	52 (0.3)	52 (0.3)	**53** (0.2)	50 (0.4)	**53** (0.3)
Sweden[1]	**51** (0.3)	50 (0.3)	50 (0.4)	**51** (0.3)	49 (0.7)	**51** (0.2)
ICCS 2022 average	**50** (0.1)	50 (0.1)	49 (0.1)	**51** (0.1)	49 (0.1)	**51** (0.1)
Countries not meeting sample participation requirements						
Brazil	52 (0.2)	53 (0.2)	52 (0.2)	**53** (0.2)	52 (0.2)	**54** (0.3)
Denmark	52 (0.3)	51 (0.2)	51 (0.2)	**53** (0.2)	49 (0.3)	**52** (0.2)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	**51** (0.3)	50 (0.2)	50 (0.2)	**52** (0.3)	48 (0.4)	**52** (0.2)
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	**52** (0.4)	51 (0.4)	51 (0.4)	**52** (0.4)	48 (0.7)	**53** (0.3)

Notes:
Score averages which are significantly larger($p < 0.05$) than those in the comparison group are displayed in**bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups not statistically significant $p < 0.05$.

Table 5.7 Students' trust in selected groups or institutions

Country	Percentages of students trusting completely or quite a lot in:											
	The national goverment of country of test			Parliment/congress			Courts of justice			Traditional media (television, newspapers, radio)		
	2022	2016	Difference	2022	2016	Difference	2022	2016	Difference	2022	2016	Difference
Bulgaria	46 (1.3) ▽	59 (1.2)	**-12** (1.8)	44 (1.1) ▽	56 (1.1)	**-12** (1.5)	62 (1.1) ▽	69 (1.0)	**-6** (1.5)	50 (1.2)	61 (1.0)	**-11** (1.5)
Chinese Taipei	70 (1.1) ▲	62 (1.0)	**8** (1.5)	71 (0.8) ▲	71 (0.9)	0 (1.2)	81 (0.9) ▲	73 (0.9)	**8** (1.3)	42 (0.9) ▽	44 (0.9)	-2 (1.3)
Colombia	40 (1.4) ▼	55 (1.2)	**-15** (1.8)	35 (1.3) ▼	46 (1.2)	**-11** (1.8)	40 (1.1) ▼	48 (1.2)	**-8** (1.6)	50 (1.2)	69 (1.3)	**-19** (1.8)
Croatia[1]	31 (1.1) ▼	42 (1.5)	**-11** (1.9)	28 (0.9) ▼	37 (1.4)	**-9** (1.7)	56 (1.3) ▽	66 (1.4)	**-9** (1.9)	47 (1.1) ▽	54 (1.0)	**-7** (1.5)
Cyprus	46 (1.1) ▽	-	-	39 (1.0) ▽	-	-	59 (1.1) ▽	-	-	49 (0.9)	-	-
Estonia	71 (1.2) ▲	73 (1.2)	-2 (1.7)	57 (1.3) △	56 (1.4)	1 (1.9)	73 (1.5) △	76 (0.9)	-3 (1.7)	44 (1.1) ▽	47 (1.2)	-3 (1.6)
France	54 (1.2)	-	-	46 (1.1) ▽	-	-	60 (1.1) ▽	-	-	46 (1.1) ▽	-	-
Italy	53 (1.1)	57 (1.0)	**-4** (1.5)	52 (1.1) △	65 (0.9)	**-13** (1.4)	64 (0.9) ▽	72 (1.1)	**-9** (1.4)	61 (1.0) ▲	75 (0.7)	**-15** (1.2)
Latvia[1]	51 (1.4)	60 (1.3)	**-8** (1.9)	43 (1.2) ▽	46 (1.2)	-2 (1.7)	65 (1.2)	71 (1.2)	**-6** (1.7)	45 (1.1) ▽	51 (1.2)	**-6** (1.6)
Lithuania	68 (1.1) ▲	74 (1.0)	**-6** (1.5)	52 (1.2) △	51 (1.3)	1 (1.7)	74 (1.0) △	80 (0.9)	**-6** (1.3)	56 (1.1) △	65 (0.9)	**-9** (1.5)
Malta	50 (1.5) ▽	66 (0.8)	**-16** (1.7)	44 (1.4) ▽	59 (0.9)	**-15** (1.7)	64 (1.6)	76 (0.8)	**-12** (1.7)	55 (1.2) △	66 (0.8)	**-11** (1.5)
Netherlands†	73 (1.3) ▲	70 (1.4)	3 (1.9)	66 (1.4) ▲	63 (1.3)	3 (1.9)	84 (1.1) ▲	78 (1.1)	**7** (1.6)	59 (1.3) △	47 (1.3)	**12** (1.8)
Norway (9)[1]	86 (0.6) ▲	79 (0.7)	**7** (0.9)	81 (0.7) ▲	77 (0.7)	**4** (1.0)	82 (0.8) ▲	76 (0.7)	**6** (1.0)	67 (0.8) ▲	48 (0.8)	**18** (1.1)
Poland	27 (1.0) ▼	-	-	25 (0.8) ▼	-	-	56 (0.9) ▽	-	-	45 (0.9) ▽	-	-
Romania	44 (1.7) ▽	-	-	41 (1.4) ▽	-	-	66 (1.2)	-	-	39 (1.8) ▼	-	-
Serbia	54 (1.4)	-	-	49 (1.5)	-	-	56 (1.3) ▼	-	-	34 (1.0) ▼	-	-
Slovak Republic	40 (1.3) ▼	-	-	36 (1.3) ▼	-	-	63 (1.1) ▽	-	-	50 (1.1)	-	-
Slovenia	38 (1.1) ▼	49 (1.4)	**-10** (1.7)	42 (1.0) ▽	50 (1.3)	**-8** (1.7)	67 (1.0)	74 (1.0)	**-7** (1.4)	50 (1.0)	65 (1.2)	**-15** (1.6)
Spain	44 (1.1) ▽	-	-	41 (1.1) ▽	-	-	62 (1.0) ▽	-	-	60 (1.1) △	-	-
Sweden[1]	78 (1.1) ▲	79 (1.0)	-1 (1.5)	76 (1.3) ▲	79 (1.1)	-2 (1.6)	78 (1.0) ▲	82 (1.2)	**-4** (1.6)	58 (1.1) △	54 (1.0)	**3** (1.5)
ICCS 2022 average	53 (0.3)			48 (0.3)			66 (0.3)			50 (0.3)		
ICCS 2016/2022 average	58 (0.3)	63 (0.3)	**-5** (0.5)	53 (0.3)	58 (0.3)	**-5** (0.5)	69 (0.3)	72 (0.3)	**-4** (0.4)	52 (0.3)	57 (0.3)	**-5** (0.4)
Countries not meeting sample participation requirements												
Brazil	48 (1.0)	-	-	45 (1.0)	-	-	51 (0.9)	-	-	51 (0.8)	-	-
Denmark	79 (1.0)	-	-	69 (1.2)	-	-	82 (0.9)	-	-	65 (1.1)	-	-
German benchmarking participant meeting sample participation requirements												
North Rhine-Westphalia	77 (1.0) ▲	-	-	68 (1.3) ▲	-	-	77 (1.1) ▲	-	-	57 (1.1) △	-	-
German benchmarking participant not meeting sample participation requirements												
Schleswig-Holstein	77 (1.4) △	-	-	70 (1.5)	-	-	82 (1.2)	-	-	58 (1.4)	-	-

Notes:
Statistically signficiant changes($p < 0.05$) since 2016 or differences across sub-groups are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

parliament/congress and, for national government and traditional media, and four percentage points for the courts of justice. Percentages trusting the national government declined by 10 percentage points or more in Croatia, Bulgaria, Colombia, Croatia, Malta, and Slovenia. However, we also observed increases in percentages of students with complete or quite a lot of trust in the national government in Chinese Taipei (8 percentage points) and Norway (7 percentage points).

We used student responses to six items (national government, parliament/congress, courts of justice, traditional media, political parties, and police) to derive a scale measuring students' trust in civic institutions. This scale measured trust consistently as shown by its high average reliability across countries (Cronbach's alpha = 0.87). When examining the differences in score points across comparison groups defined by gender (female versus male students), socioeconomic background, and levels of civic knowledge (Table 5.8), we observed that, on average, the difference in average trust scores between high and low levels of civic knowledge was less than one scale point, the difference between above and below average socioeconomic background was close to zero, and the scores for male students were just over one scale point higher than the scores for female students.

Trust in institutions was significantly higher for students with high civic knowledge than those with low civic knowledge in Estonia, the Netherlands, Norway, and Sweden. However, the reverse was observed in Bulgaria, Colombia, Italy, Malta, Poland, Romania, Serbia, and the Slovak Republic. Trust was significantly higher for those from above average socioeconomic background in Estonia, France, Latvia, the Netherlands, Norway, and Sweden while it was higher among students from lower socioeconomic background in Bulgaria, Chinese Taipei, Poland, Romania, Serbia, and the Slovak Republic. Male students scored significantly higher than female students in Colombia, Estonia, France, Lithuania, Malta, the Netherlands, Poland, the Slovak Republic, Slovenia, Spain, and Sweden, but the differences were often relatively small (about one score point on average).

5.4 Attitudes Toward Equal Rights

ICCS 2022 focused on three aspects of attitudes toward equal rights: gender equality, equal rights for immigrants, and equal rights for all ethnic groups. Each of these has established background in previous IEA studies of civic and citizenship education as well as having assumed even greater importance in contemporary societies.

5.4.1 Endorsement of Gender Equality

ICCS 2022 assessed students' attitudes toward gender equality with a slightly modified set of items based on those used in ICCS 2016. These studies have traditionally considered gender equality between women and men, but we recognize that conceptualizations of gender have evolved beyond this binary view of gender, and expect this to be reflected more strongly in future cycles of ICCS.

ICCS 2022 included six items from the previous cycles as well as one new item, designed to measure students' attitudes toward gender equality, which was not included in the scaling of these items. The scaled items were (negative statements were reverse-scored prior to scaling): "Men and women should have equal opportunities to take part in government" (94% agreed or strongly agreed with this statement on average across countries); "men and women should have the same rights in every way" (91%); "women should stay out of politics" (17%); "when there are not many jobs available, men should have more right to a job than women" (22%); "men and women should get equal pay when they are doing the same jobs" (90%); and "men are better qualified to be political leaders than women" (26%). To enable the measurement of trends, the scale was equated to the metric established in ICCS 2009 and had high reliability across countries (average Cronbach's alpha = 0.81). In ICCS 2022, national average scale scores were significantly higher, and more than three scale points greater, than the ICCS 2022 average in Chinese Taipei, France, Italy, and Sweden. National average scale scores were significantly lower than, and more than three scale points below, the ICCS 2022 average in Bulgaria, Colombia, Latvia, Serbia, and the Slovak Republic.

In average across ICCS countries, there was a small increase of less than two scale points between 2009 and 2022 and no statistically significant increase in the endorsement of gender equality between 2016 and 2022 (Table 5.9). The increases between 2009 and 2022 were largest in Italy, Poland, and Cyprus, by more than three scale points.

When examining the differences in scale scores across groups defined by gender (female versus male students), socioeconomic status, and level of civic knowledge (Table 5.10), we found that on average there was a significant and substantial difference of almost ten scale points, or nearly one international standard deviation, in the average endorsement of gender equality scores between students with high and low levels of civic knowledge with those with higher levels of civic knowledge expressing more support. This difference was significant in every country and was largest (11 points or more) in Chinese Taipei, Colombia, and Sweden.

Table 5.8 National average scale scores indicating students' trust in civic institutions by gender, socioeconomic background, and level of civic knowledge

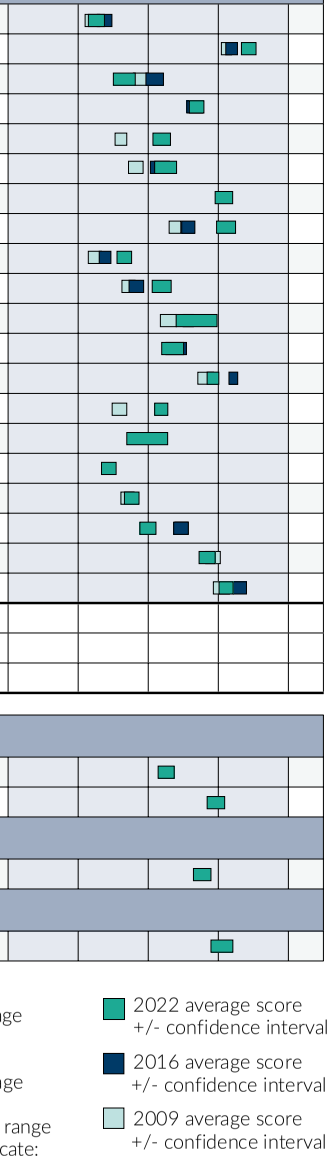
Country	Scale score average by gender group: Male students	Scale score average by gender group: Female students	Scale score by socioeconomic background: Below country average	Scale score by socioeconomic background: At or above country average	Scale score average by level of civic knowledge: Civic knowledge below Level B (below 479)	Scale score average by level of civic knowledge: Civic knowledge at or above Level B (479 and above)
Bulgaria	**47** (0.4)	46 (0.4)	**48** (0.5)	46 (0.3)	**48** (0.5)	45 (0.3)
Chinese Taipei	52 (0.3)	53 (0.2)	**53** (0.3)	52 (0.3)	54 (0.9)	52 (0.2)
Colombia	**48** (0.4)	44 (0.5)	46 (0.4)	46 (0.5)	**49** (0.4)	42 (0.4)
Croatia[1]	46 (0.3)	45 (0.2)	46 (0.3)	45 (0.3)	46 (0.5)	45 (0.2)
Cyprus	46 (0.4)	46 (0.3)	46 (0.4)	46 (0.3)	46 (0.4)	45 (0.4)
Estonia	**51** (0.4)	50 (0.3)	49 (0.3)	52 (0.3)	49 (0.5)	**51** (0.3)
France	**50** (0.3)	47 (0.3)	48 (0.3)	**49** (0.3)	49 (0.4)	48 (0.3)
Italy	49 (0.3)	49 (0.3)	49 (0.3)	49 (0.3)	**50** (0.5)	48 (0.2)
Latvia[1]	**48** (0.4)	47 (0.3)	47 (0.4)	48 (0.3)	47 (0.4)	48 (0.3)
Lithuania	**51** (0.3)	50 (0.3)	50 (0.2)	51 (0.4)	50 (0.4)	51 (0.3)
Malta	**50** (0.5)	47 (0.3)	49 (0.6)	48 (0.4)	**50** (0.6)	48 (0.4)
Netherlands†	53 (0.4)	52 (0.5)	52 (0.4)	54 (0.3)	51 (0.5)	**54** (0.3)
Norway (9)[1]	55 (0.3)	55 (0.2)	53 (0.3)	57 (0.2)	53 (0.4)	**56** (0.2)
Poland	**45** (0.3)	44 (0.2)	**45** (0.2)	44 (0.2)	**45** (0.4)	44 (0.2)
Romania	48 (0.4)	49 (0.4)	**49** (0.5)	47 (0.4)	**49** (0.5)	47 (0.4)
Serbia	48 (0.4)	48 (0.4)	**49** (0.4)	47 (0.4)	**49** (0.4)	46 (0.4)
Slovak Republic	**47** (0.3)	46 (0.4)	**47** (0.4)	46 (0.3)	**48** (0.4)	46 (0.3)
Slovenia	**48** (0.3)	47 (0.3)	47 (0.3)	47 (0.3)	47 (0.4)	47 (0.3)
Spain	**49** (0.3)	47 (0.3)	48 (0.3)	48 (0.3)	49 (0.4)	48 (0.2)
Sweden[1]	**54** (0.4)	53 (0.4)	52 (0.5)	**54** (0.3)	52 (0.8)	**54** (0.3)
ICCS 2022 average	**49** (0.1)	48 (0.1)	49 (0.1)	49 (0.1)	**49** (0.1)	48 (0.1)
Countries not meeting sample participation requirements						
Brazil	**50** (0.3)	47 (0.2)	**49** (0.3)	47 (0.2)	**50** (0.3)	46 (0.3)
Denmark	**53** (0.3)	53 (0.2)	52 (0.3)	**54** (0.3)	51 (0.5)	**53** (0.2)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	**53** (0.3)	52 (0.3)	52 (0.3)	**54** (0.3)	52 (0.3)	**53** (0.3)
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	**53** (0.4)	52 (0.3)	52 (0.3)	**53** (0.4)	52 (0.7)	53 (0.3)

Notes:
Score averages which are significantly larger $p < 0.05$) than those in the comparison group are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Difference between comparison groups statistically significant $p < 0.05$.
Difference between comparison groups not statistically significant $p < 0.05$.

Table 5.9 National average scale scores indicating students' endorsement of gender equality

Country	2022	2016	2009	Difference (2022–2016)	Difference (2022–2009)
Bulgaria	46 (0.3) ▼	46 (0.3)	46 (0.3)	0.1 (0.5)	0.5 (0.7)
Chinese Taipei	58 (0.2) ▲	56 (0.2)	55 (0.2)	**1.2** (0.5)	**2.1** (0.6)
Colombia	48 (0.4) ▼	50 (0.3)	49 (0.2)	**-1.9** (0.6)	-0.9 (0.7)
Croatia[1]	54 (0.3) △	53 (0.3)	-	0.4 (0.5)	-
Cyprus	51 (0.3) ▽	-	48 (0.2)	-	**3.2** (0.6)
Estonia	51 (0.4)	51 (0.3)	49 (0.3)	0.5 (0.6)	**2.4** (0.7)
France	56 (0.3) ▲	-	-	-	-
Italy	56 (0.3) ▲	53 (0.2)	52 (0.2)	**2.6** (0.5)	**3.9** (0.7)
Latvia[1]	48 (0.2) ▼	46 (0.2)	46 (0.2)	**1.9** (0.5)	**2.4** (0.6)
Lithuania	51 (0.3) ▽	49 (0.2)	48 (0.2)	**2.3** (0.5)	**3.0** (0.7)
Malta	54 (0.7) △	53 (0.2)	51 (0.3)	0.8 (0.8)	**2.4** (0.9)
Netherlands†	52 (0.4)	52 (0.3)	-	-0.2 (0.6)	
Norway (9)[1]	55 (0.2) △	57 (0.2)	54 (0.3)	**-1.9** (0.4)	0.8 (0.6)
Poland	51 (0.2) ▽	-	48 (0.3)	-	**3.6** (0.6)
Romania	50 (0.7) ▽	-	-	-	-
Serbia	47 (0.2) ▼	-	-	-	-
Slovak Republic	49 (0.3) ▼	-	-	-	0.5 (0.6)
Slovenia	50 (0.3) ▽	53 (0.2)	52 (0.2)	**-2.4** (0.5)	**-1.5** (0.7)
Spain	55 (0.3) △	-	54 (0.3)	-	0.0 (0.7)
Sweden[1]	56 (0.3) ▲	57 (0.2)	55 (0.3)	-0.8 (0.5)	1.1 (0.7)
ICCS 2022 average	52 (0.1)	-	-	-	-
ICCS 2016/2022 average	52 (0.1)	52 (0.1)	-	0.2 (0.2)	-
ICCS 2009/2022 average	52 (0.1)	-	50 (0.1)	-	**1.6** (0.2)
Countries not meeting sample participation requirements					
Brazil	51 (0.3)	-	-	-	-
Denmark	55 (0.3)	-	-	-	-
German benchmarking participant meeting sample participation requirements					
North Rhine-Westphalia	54 (0.3) △	-	-	-	-
German benchmarking participant not meeting sample participation requirements					
Schleswig-Holstein	56 (0.4)	-	-	-	-



Notes:
Statistically significant changes($p < 0.05$) since 2009 and 2016 are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 3 score points below ICCS 2022 average

On average across items, students with a score in the range with this color have more than 50% probablity to indicate:

	Little or no trust
	Quite a lot or complere trust

2022 average score +/- confidence interval
2016 average score +/- confidence interval
2009 average score +/- confidence interval

Table 5.10 National average scale scores indicating students' endorsement of gender equality by gender, socioeconomic background, and level of civic knowledge

Country	Scale score average by gender group: Male students	Scale score average by gender group: Female students	Scale score average by socioeconomic group: Below country average	Scale score average by socioeconomic group: At or above country average	Scale score average by level of civic knowledge: Civic knowledge below Level B (below 479)	Scale score average by level of civic knowledge: Civic knowledge at or above Level B (479 and above)
Bulgaria	42 (0.3)	**51** (0.4)	43 (0.3)	**49** (0.4)	42 (0.2)	**52** (0.4)
Chinese Taipei	55 (0.3)	**61** (0.2)	57 (0.4)	**58** (0.3)	47 (0.6)	**59** (0.2)
Colombia	47 (0.3)	**50** (0.6)	47 (0.4)	**50** (0.5)	44 (0.3)	**55** (0.3)
Croatia[1]	48 (0.4)	**59** (0.3)	53 (0.3)	**55** (0.4)	47 (0.6)	**56** (0.3)
Cyprus	45 (0.4)	**57** (0.3)	49 (0.3)	**52** (0.4)	47 (0.3)	**57** (0.4)
Estonia	45 (0.5)	**58** (0.4)	50 (0.4)	**53** (0.5)	44 (0.5)	**54** (0.4)
France	51 (0.5)	**60** (0.3)	54 (0.3)	**58** (0.3)	50 (0.5)	**59** (0.2)
Italy	52 (0.5)	**60** (0.3)	54 (0.3)	**57** (0.4)	49 (0.6)	**59** (0.3)
Latvia[1]	42 (0.3)	**54** (0.3)	46 (0.4)	**50** (0.3)	43 (0.3)	**52** (0.3)
Lithuania	45 (0.3)	**58** (0.4)	49 (0.4)	**54** (0.4)	45 (0.3)	**55** (0.3)
Malta	49 (0.6)	**58** (0.8)	52 (0.8)	**56** (0.7)	48 (0.7)	**58** (0.5)
Netherlands†	47 (0.4)	**58** (0.4)	50 (0.5)	**54** (0.5)	47 (0.6)	**55** (0.4)
Norway (9)[1]	49 (0.3)	**61** (0.2)	53 (0.3)	**57** (0.3)	48 (0.4)	**58** (0.2)
Poland	45 (0.3)	**57** (0.2)	49 (0.3)	**53** (0.2)	45 (0.4)	**53** (0.2)
Romania	46 (0.8)	**55** (0.7)	48 (0.4)	**53** (0.7)	45 (0.5)	**55** (0.6)
Serbia	42 (0.3)	**52** (0.4)	46 (0.3)	**49** (0.4)	44 (0.3)	**52** (0.4)
Slovak Republic	44 (0.3)	**53** (0.3)	46 (0.3)	**51** (0.3)	43 (0.3)	**52** (0.3)
Slovenia	44 (0.4)	**56** (0.3)	49 (0.4)	**51** (0.4)	45 (0.4)	**54** (0.3)
Spain	50 (0.3)	**59** (0.3)	53 (0.4)	**56** (0.4)	48 (0.5)	**58** (0.3)
Sweden[1]	52 (0.4)	**61** (0.3)	54 (0.3)	**58** (0.3)	48 (0.7)	**59** (0.2)
ICCS 2022 average	47 (0.1)	**57** (0.1)	50 (0.1)	**54** (0.1)	46 (0.1)	
Countries not meeting sample participation requirements						
Brazil	48 (0.4)	**54** (0.3)	50 (0.4)	**54** (0.3)	47 (0.3)	**58** (0.3)
Denmark	50 (0.4)	**61** (0.3)	54 (0.4)	**57** (0.3)	48 (0.6)	**57** (0.3)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	50 (0.4)	**60** (0.3)	53 (0.3)	**56** (0.4)	48 (0.5)	**57** (0.4)
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	52 (0.5)	**60** (0.4)	54 (0.6)	**58** (0.5)	48 (1.0)	**58** (0.4)

Notes:
Score averages which are significantly larger($p < 0.05$) than those in the comparison group are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups not statistically significant at $p < 0.05$.

On average across countries, we found a significant but smaller difference of a little less than four scale points in average endorsement of gender equality scores between students from households that were above and below average socioeconomic groups, with the former having higher levels of endorsement. This difference was significant in every country and greatest in Romania and Bulgaria (five points or more).

We also recorded a significant average difference between gender groups of about 10 scale points, with female students being more supportive of gender equality than male students. This difference was significant in every country and greatest in Estonia, Lithuania, Norway, Poland, and Slovenia (12 score points or more).

5.4.2 Endorsement of Equal Rights for Immigrants

ICCS 2022 asked about students' attitudes toward immigrant rights and contained four items from ICCS 2016 as well as one newly developed item. Students were asked to indicate their agreement or disagreement with the following statements: "Immigrant children should have the same opportunities for education that other children in the country have" (93% agreed or strongly agreed with this statement on average across countries); "immigrants should have the same rights that everyone else in the country has" (88%); "immigrants should have the opportunity to continue their own customs and lifestyle"(86%); "immigrants who live in a country for several years should have the opportunity to vote in elections" (81%); and "immigrants bring many cultural, social, and economic benefits to the country" (73%) (Table 5.11).

The items were used to derive a highly reliable scale (average Cronbach's alpha = 0.83) reflecting students' positive attitudes toward immigrants in ICCS 2022. As the item set was not included in the international student questionnaire but only in the European questionnaire in ICCS 2016, the scale was not equated to the previous cycles. In ICCS 2022, national average scale scores were significantly greater than, and more than three scale points above, the ICCS 2022 average on the scale measuring endorsement of equal rights for immigrants in Chinese Taipei, and Sweden (Table 5.11). National average scale scores were significantly lower than, and more than three scale points below, the ICCS 2022 average on the same scale in Bulgaria, Latvia, and Serbia.

The scale was used to compare levels of endorsement of equal rights for immigrants by groups based on student characteristics: level of civic knowledge (above or below Level B), socioeconomic background (above and below national average), and gender (female and male students). On average, those with higher levels of civic knowledge scored four scale points higher on the equal rights for immigrants scale than those with lower levels of civic knowledge (Table 5.12). This difference was significant in every country and was more than five scale points in Chinese Taipei, Malta, and Romania.

There was a significant but small difference of between one and two scale points in average endorsement of equal rights for immigrants scores between those of above and those of below average socioeconomic background in the respective country. This difference was significant in most countries and the difference was largest in Romania (of almost four scale points).

Female students scored significantly higher, on average by almost three scale points, than male students on the scale measuring attitudes toward equal rights for immigrants scale. This difference was significant in all but two countries and female students had significantly higher scores than male students (the differences were largest in Cyprus, Estonia, and Serbia with almost four points).

5.4.3 Endorsement of Equal Rights for All Ethnic Groups in Society

ICCS 2022 assessed young people's attitudes toward equal rights for all ethnic/racial groups in society with an optional question that was included in 20 ICCS countries. The items were: "All ethnic groups should have an equal chance to get good jobs in [country name]" (94% agreed or strongly agreed with this statement on average across countries); "schools should teach students to respect members of all ethnic groups" (91%); "members of all ethnic groups should be encouraged to run in elections for political office" (80%); "all ethnic groups should have an equal chance to get a good education in [country]" (92%); and "members of all ethnic groups should have the same rights and responsibilities" (91%).

A highly reliable (average Cronbach's alpha = 0.87) scale was equated to the metric established in ICCS 2009. National average scale scores were significantly different from, and more than three scale points greater than, the ICCS 2022 average on the scale measuring endorsement of equal rights for all ethnic groups in Chinese Taipei, Norway, and Sweden (Table 5.13). We recorded the lowest national average scale scores (significantly and more than three scale points below the ICCS 2022 average) in Bulgaria, Latvia, and the Slovak Republic.

Between 2009 and 2022, there was an overall increase in the average scale scores reflecting endorsement of equal rights for all ethnic groups across those countries that participated in both cycles (Table 5.13). The average increase was about two

Table 5.11 National percentages and scale scores indicating students' positive attitudes toward immigrants

Country	Percentages of students who agree or strongly agree with the following statements:					Average scale scores indicating students' positive attitude toward immigrants
	Immigrant children should have the same opportunities for education that other children in the country have (%)	Immigrants should have the same rights that everyone else in the country has (%)	Immigrants should have the opportunity to continue their own customs and lifestyle (%)	Immigrants who live in a country for several years should have the opportunity to vote in elections (%)	Immigrants bring many cultural, social and economic benefits to country of test (%)	
Bulgaria	86 (1.0) ▽	77 (0.9) ▼	82 (1.0) ▽	68 (1.0) ▼	63 (1.1) ▼	46 (0.3) ▼
Chinese Taipei	97 (0.3) △	96 (0.4) △	96 (0.4) △	94 (0.4) ▲	97 (0.3) ▲	57 (0.2) ▲
Colombia	94 (0.4) △	87 (0.6)	86 (0.7)	82 (0.8)	74 (0.9)	49 (0.2) ▽
Croatia[1]	96 (0.4) △	93 (0.6) △	92 (0.7) △	81 (1.0)	70 (1.1) ▽	51 (0.2) △
Cyprus	92 (0.6) ▽	84 (0.9) ▽	83 (0.8) ▽	80 (0.9)	64 (1.1) ▽	49 (0.2) ▽
Estonia	93 (0.9)	88 (0.8)	83 (0.9) ▽	75 (1.4) ▽	66 (1.1) ▽	48 (0.3) ▽
France	95 (0.6) △	91 (0.6) △	85 (0.8)	86 (0.7) △	81 (0.8) △	52 (0.2) △
Italy	97 (0.4) △	94 (0.8) △	94 (0.6) △	91 (0.9) ▲	80 (1.0) △	53 (0.3) △
Latvia[1]	88 (0.7) ▽	84 (0.8) ▽	82 (0.8) ▽	75 (1.0) ▽	62 (0.9) ▼	46 (0.2) ▼
Lithuania	92 (0.6) ▽	85 (0.7) ▽	89 (0.8) △	68 (1.0) ▼	70 (1.0) ▽	48 (0.2) ▽
Malta	93 (1.2)	87 (1.3)	88 (1.3)	84 (0.9) △	79 (1.4) △	51 (0.4) △
Netherlands†	92 (0.7)	86 (0.8) ▽	82 (1.1) ▽	83 (1.0) △	75 (1.1)	49 (0.3) ▽
Norway (9)[1]	94 (0.4)	92 (0.5) △	89 (0.6) △	87 (0.6) △	80 (0.8) △	53 (0.2) △
Poland	96 (0.3) △	89 (0.6) △	89 (0.6) △	76 (0.7) ▽	72 (0.9)	48 (0.2) ▽
Romania	94 (0.8)	90 (0.9)	89 (1.8)	84 (1.6) △	76 (2.4)	50 (0.6)
Serbia	89 (0.8) ▽	78 (0.9) ▽	79 (0.9) ▽	65 (1.2) ▼	51 (1.2) ▼	46 (0.2) ▼
Slovak Republic	94 (0.6)	89 (0.9)	81 (1.0) ▽	82 (0.9)	73 (0.9)	48 (0.2) ▽
Slovenia	93 (0.6)	87 (0.7) ▽	83 (0.6) ▽	82 (0.8)	77 (0.8) △	49 (0.2) ▽
Spain	93 (0.5)	91 (0.7) △	88 (0.6) △	87 (0.6) △	81 (0.9) △	52 (0.2) △
Sweden[1]	96 (0.5) △	94 (0.6) △	89 (0.7) △	87 (0.8) △	79 (1.0) △	54 (0.3) ▲
ICCS 2022 average	93 (0.1)	88 (0.2)	86 (0.2)	81 (0.2)	73 (0.2)	50 (0.1)
Countries not meeting sample participation requirements						
Brazil	93 (0.4)	87 (0.6)	87 (0.7)	87 (0.6)	83 (0.8)	51 (0.2)
Denmark	95 (0.4)	90 (0.7)	87 (0.7)	86 (0.8)	69 (1.0)	50 (0.3)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	96 (0.4) △	92 (0.7) △	90 (0.6) △	88 (0.7) △	77 (1.0) △	51 (0.2) △
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	96 (0.6)	93 (0.7)	87 (1.0)	89 (0.9)	76 (1.4)	52 (0.3)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 10 percentage or 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage or 3 score points below ICCS 2022 average

Table 5.12 National average scale scores indicating students' positive attitudes toward immigrants by gender, socioeconomic background, and level of civic knowledge

Country	Scale score average by gender group: Male students ⟷ Female students (-12 -8 -4 0 4 8 12)	Scale score by socioeconomic background: Below country average ⟷ At or above country average (-12 -8 -4 0 4 8 12)	Scale score average by level of civic knowledge: Civic knowledge below Level B (below 479) ⟷ Civic knowledge at or above Level B (479 and above) (-12 -8 -4 0 4 8 12)
Bulgaria	45 (0.3)	**47** (0.3)	45 (0.4)	**47** (0.3)	44 (0.4)	**48** (0.3)
Chinese Taipei	56 (0.3)	57 (0.3)	56 (0.3)	**57** (0.3)	50 (0.8)	**57** (0.2)
Colombia	49 (0.3)	49 (0.3)	49 (0.2)	49 (0.3)	49 (0.3)	**50** (0.3)
Croatia[1]	49 (0.3)	**53** (0.2)	50 (0.3)	**52** (0.3)	48 (0.5)	**52** (0.2)
Cyprus	47 (0.3)	**51** (0.3)	48 (0.3)	**50** (0.3)	47 (0.3)	**51** (0.3)
Estonia	46 (0.4)	**50** (0.3)	47 (0.3)	**49** (0.4)	44 (0.4)	**49** (0.3)
France	51 (0.3)	**53** (0.3)	51 (0.3)	**53** (0.3)	50 (0.5)	**53** (0.3)
Italy	52 (0.4)	**54** (0.2)	52 (0.3)	**54** (0.3)	49 (0.5)	**54** (0.2)
Latvia[1]	45 (0.3)	**48** (0.3)	46 (0.3)	**47** (0.3)	44 (0.3)	**48** (0.3)
Lithuania	46 (0.3)	**49** (0.3)	47 (0.3)	**49** (0.2)	45 (0.3)	**49** (0.2)
Malta	50 (0.5)	**52** (0.5)	50 (0.5)	**53** (0.3)	48 (0.6)	**54** (0.3)
Netherlands†	48 (0.5)	**51** (0.4)	49 (0.4)	**50** (0.3)	46 (0.6)	**51** (0.4)
Norway (9)[1]	51 (0.4)	**54** (0.3)	52 (0.3)	**54** (0.3)	49 (0.5)	**54** (0.2)
Poland	47 (0.2)	**50** (0.2)	47 (0.2)	**49** (0.2)	45 (0.4)	**49** (0.2)
Romania	49 (0.7)	**51** (0.6)	49 (0.5)	**52** (0.6)	48 (0.4)	**53** (0.6)
Serbia	44 (0.3)	**48** (0.3)	45 (0.3)	**46** (0.3)	44 (0.3)	**48** (0.4)
Slovak Republic	47 (0.3)	**50** (0.2)	47 (0.3)	**50** (0.2)	46 (0.4)	**50** (0.3)
Slovenia	48 (0.3)	**51** (0.2)	49 (0.3)	49 (0.3)	47 (0.3)	**51** (0.3)
Spain	50 (0.3)	**53** (0.3)	52 (0.3)	52 (0.3)	49 (0.4)	**53** (0.3)
Sweden[1]	52 (0.4)	**55** (0.3)	53 (0.4)	**54** (0.3)	50 (0.8)	**55** (0.3)
ICCS 2022 average	49 (0.1)	**51** (0.1)	49 (0.1)	**51** (0.1)	47 (0.1)	**51** (0.1)
Countries not meeting sample participation requirements						
Brazil	50 (0.3)	**52** (0.3)	50 (0.3)	**52** (0.3)	49 (0.3)	**54** (0.3)
Denmark	48 (0.3)	**51** (0.3)	49 (0.3)	**51** (0.3)	47 (0.6)	**50** (0.3)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	50 (0.3)	**53** (0.3)	51 (0.3)	**52** (0.4)	48 (0.4)	**53** (0.3)
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	50 (0.4)	**53** (0.5)	51 (0.4)	**53** (0.4)	47 (0.7)	**53** (0.3)

Notes:

Score averages which are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.

Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.

() Standard errors appear in parentheses.

(9) Country deviated from international defined population and surveyed adjacent upper grade.

† Nearly met guidelines for sampling participation rates only after replacement schools were included.

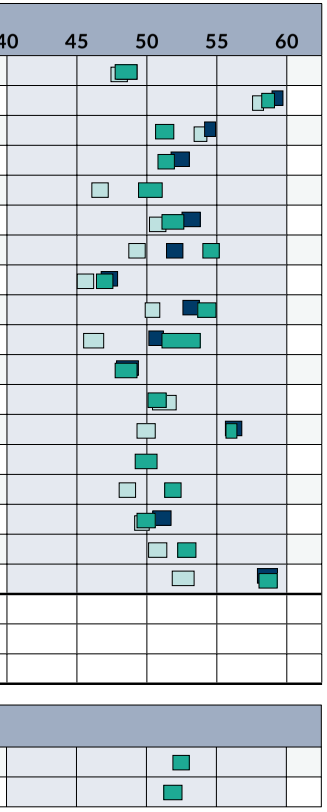
[1] National defined population covers 90% to 95% of national target population.

Difference between comparison groups statistically significant at $p < 0.05$.

Difference between comparison groups not statistically significant $p < 0.05$.

Table 5.13 National average scale scores indicating students' endorsement of equal rights for all ethnic groups

Country	2022	2016	2009	Difference (2022–2016)	Difference (2022–2009)
Bulgaria	49 (0.3) ▼	49 (0.3)	48 (0.2)	0.1 (0.5)	0.6 (0.6)
Chinese Taipei	58 (0.2) ▲	58 (0.2)	57 (0.2)	0.0 (0.4)	**1.2** (0.5)
Colombia	51 (0.3) ▽	54 (0.2)	53 (0.2)	**-2.8** (0.4)	**-1.8** (0.5)
Croatia[1]	51 (0.2)	52 (0.2)	-	-0.6 (0.5)	-
Cyprus	50 (0.3) ▽	-	47 (0.2)	-	**3.6** (0.6)
Estonia	51 (0.3)	53 (0.2)	51 (0.2)	**-1.3** (0.5)	0.8 (0.6)
Italy	54 (0.2) △	52 (0.2)	49 (0.2)	**2.5** (0.5)	**4.9** (0.5)
Latvia[1]	48 (0.2) ▼	48 (0.2)	46 (0.2)	0.0 (0.5)	**1.8** (0.5)
Lithuania	54 (0.3) △	53 (0.2)	50 (0.2)	0.8 (0.5)	**3.7** (0.5)
Malta	52 (0.5)	51 (0.2)	46 (0.3)	**1.7** (0.7)	**6.0** (0.7)
Netherlands†	49 (0.3) ▽	49 (0.3)	-	0.5 (0.5)	-
Norway (9)[1]	56 (0.3) ▲	55 (0.2)	51 (0.3)	0.2 (0.5)	**4.8** (0.6)
Poland	50 (0.2) ▽	-	50 (0.2)	-	0.4 (0.5)
Romania	52 (0.3)	-	-	-	-
Slovak Republic	49 (0.2) ▼	-	48 (0.2)	-	0.2 (0.5)
Slovenia	50 (0.2) ▽	51 (0.2)	49 (0.2)	**-1.0** (0.5)	0.7 (0.5)
Spain	52 (0.3) △	-	51 (0.3)	-	**2.0** (0.5)
Sweden[1]	58 (0.3) ▲	57 (0.3)	52 (0.3)	0.2 (0.5)	**5.6** (0.6)
ICCS 2022 average	52 (0.1)	-	-	-	-
ICCS 2016/2022 average	52 (0.1)	52 (0.1)	-	0.0 (0.1)	-
ICCS 2009/2022 average	52 (0.1)	-	50 (0.1)	-	**2.3** (0.1)
Countries not meeting sample participation requirements					
Brazil	52 (0.2)	-	-	-	-
Denmark	52 (0.2)	-	-	-	-



Notes:
Statistically significant changes($p < 0.05$) since 2009 and 2016 are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 3 score points below ICCS 2022 average

On average across items, students with a score in the range with this color have more than 50% probablity to indicate:

	Disagreement with positive statements
	Agreement with positive statements

2022 average score +/- confidence interval
2016 average score +/- confidence interval
2009 average score +/- confidence interval

scale points, and we observed the greatest increases in Malta, Sweden, Italy, and Norway. However, between 2016 and 2022, there was no significant change on average with just small increases of about two scale points in Italy and Malta and statistically significant decreases in Colombia, Estonia, and Slovenia.

On average there was significant difference of almost seven scale points between students with high and low levels of civic knowledge, with more knowledgeable students expressing higher levels of endorsement (Table 5.14). This difference was significant in every country and was more than seven scale points in Bulgaria, Cyprus, Estonia, Latvia, Lithuania, Malta, Norway, and Sweden. We also observed a significant average difference of just under three scale points in average endorsement of equal rights for all ethnic groups scores between socioeconomic groups, with students from higher socioeconomic background being more supportive of equal rights for all ethnic groups. This difference was significant in every country, and we recorded differences of more than three scale points in Bulgaria, Cyprus, Estonia, Latvia, Malta, Norway, and Sweden.

On average, female students recorded higher scores on the equal rights for all ethnic groups scores than male students by four scale points on average. Female students scored significantly higher scores on this scale than male students in 19 countries.

5.5 Beliefs Related to Citizenship Responsibilities and the Environment

The ICCS 2022 student questionnaire included questions to gauge students' beliefs about good citizenship behavior including globally oriented types of behavior. In addition, students rated their agreement with statements about environmental protection and reported on their concerns about threats to the world's future.

5.5.1 Perceived Importance of Conventional, Social Movement, and Global Citizenship

ICCS 2022 asked students to rate their perceptions of the importance of what constitutes good citizenship behavior, using different types of actions ("very important," "quite important," "not very important," or "not important at all"). The item set was modified from previous cycles and included four new items that asked about behavior related to global citizenship issues. We combined the responses of very and quite important to indicate importance.

- Items concerned with conventional citizenship were: "Voting in every national election" (on average across countries: 78%); "joining a political party" (33%); "following political issues in the newspaper, on the radio, on TV, or on the internet" (67%); and "engaging in political discussions" (40%).
- Items concerned with social-movement-related citizenship were: "Participating in peaceful protests against laws believed to be unjust" (58%); "participating in activities to benefit people in the local community" (76%); "taking part in activities promoting human rights" (81%); and "taking part in activities to protect the environment" (84%).
- Items concerned with globally oriented citizenship were: "Showing interest in different cultures and languages" (72%); "making changes to one's personal lifestyle in order to become more [environmentally friendly]" (80%); "supporting initiatives that promote equal opportunities for all people across the world" (81%); and "helping people in less developed countries" (83%).

The resulting scales had sound satisfactory average reliabilities across countries: Average values of Cronbach's alpha were 0.71 for conventional citizenship, 0.80 for social-movement-related citizenship, and 0.77 for global citizenship. The scales related to conventional and social-movement-related citizenship were equated to the metrics established in ICCS 2009. The same item set was also included in the teacher questionnaire, which reflected the same three dimensions. The resulting scales for teachers had average reliabilities (Cronbach's alpha) of 0.61 for conventional, 0.74 for social-movement-related citizenship, and 0.74 for globally oriented citizenship.

When comparing national average scores for students across participating countries, we observed moderate to strong correlations, with an ICCS 2022 average of 0.51, between the national scale scores reflecting students' perceptions of the importance of conventional and social-movement-related citizenship (Table 5.15). In Chinese Taipei and Italy, national score averages for conventional citizenship scale were more than three points higher than the ICCS 2022 average, while these were more than three points below average. In Estonia and Serbia.

Table 5.14 National average scale scores indicating students' endorsement of equal rights for all ethnic groups by gender, socioeconomic background, and level of civic knowledge

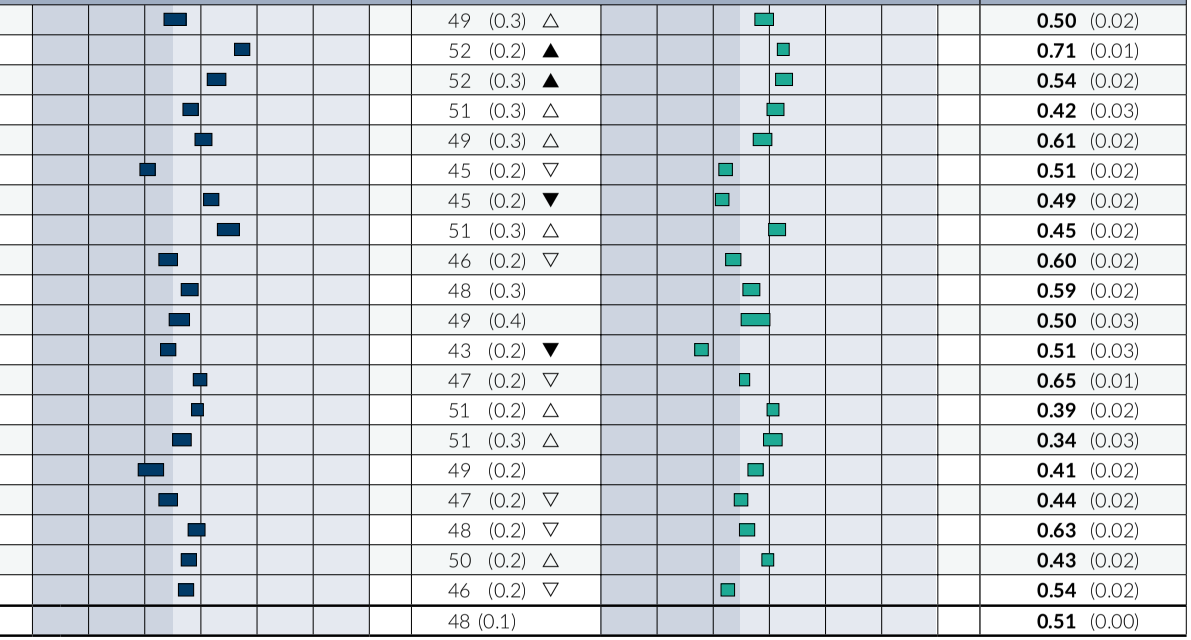
Country	Scale score average by gender group: Male students	Scale score average by gender group: Female students	Scale score by socioeconomic background: Below country average	Scale score by socioeconomic background: At or above country average	Scale score average by level of civic knowledge: Civic knowledge below Level B (below 479)	Scale score average by level of civic knowledge: Civic knowledge at or above Level B (479 and above)
Bulgaria	46 (0.5)	**51** (0.3)	47 (0.4)	**50** (0.4)	45 (0.4)	**53** (0.3)
Chinese Taipei	58 (0.3)	**59** (0.3)	58 (0.3)	58 (0.2)	53 (0.7)	**59** (0.2)
Colombia	51 (0.3)	52 (0.4)	50 (0.3)	**52** (0.3)	49 (0.3)	**54** (0.3)
Croatia[1]	49 (0.3)	**54** (0.3)	50 (0.3)	**53** (0.3)	47 (0.5)	**53** (0.2)
Cyprus	48 (0.4)	**53** (0.3)	49 (0.4)	**52** (0.4)	47 (0.4)	**55** (0.4)
Estonia	49 (0.4)	**54** (0.3)	50 (0.3)	**53** (0.5)	45 (0.4)	**53** (0.3)
Italy	52 (0.4)	**56** (0.3)	53 (0.3)	**55** (0.3)	49 (0.4)	**56** (0.2)
Latvia[1]	46 (0.3)	**50** (0.3)	46 (0.3)	**49** (0.3)	44 (0.4)	**51** (0.3)
Lithuania	51 (0.3)	**57** (0.3)	51 (0.3)	**56** (0.3)	48 (0.4)	**57** (0.3)
Malta	51 (0.5)	**54** (0.7)	50 (0.7)	**54** (0.4)	48 (0.8)	**56** (0.3)
Netherlands†	48 (0.4)	**51** (0.4)	48 (0.4)	**51** (0.4)	46 (0.6)	**51** (0.3)
Norway (9)[1]	53 (0.4)	**58** (0.3)	54 (0.3)	**57** (0.3)	50 (0.5)	**58** (0.2)
Poland	48 (0.3)	**52** (0.2)	49 (0.2)	**51** (0.2)	45 (0.4)	**51** (0.2)
Romania	50 (0.4)	**54** (0.5)	51 (0.3)	**53** (0.4)	49 (0.4)	**55** (0.4)
Slovak Republic	47 (0.3)	**51** (0.3)	47 (0.3)	**50** (0.3)	45 (0.4)	**51** (0.2)
Slovenia	48 (0.4)	**52** (0.2)	49 (0.3)	**51** (0.3)	47 (0.3)	**52** (0.3)
Spain	51 (0.3)	**54** (0.3)	51 (0.3)	**53** (0.3)	49 (0.4)	**54** (0.3)
Sweden[1]	55 (0.4)	**60** (0.3)	56 (0.4)	**59** (0.3)	51 (0.7)	**59** (0.2)
ICCS 2022 average	50 (0.1)	**54** (0.1)	51 (0.1)	**53** (0.1)	48 (0.1)	**54** (0.1)
Countries not meeting sample participation requirements						
Brazil	51 (0.3)	**53** (0.3)	51 (0.3)	**54** (0.3)	49 (0.3)	**57** (0.3)
Denmark	49 (0.3)	**54** (0.3)	50 (0.4)	**53** (0.3)	48 (0.5)	**53** (0.3)

Notes:
Score averages which are significantly larger $p < 0.05$) than those in the comparison group are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups not statistically significant at $p < 0.05$.

Table 5.15 National average scale scores for students' perceptions of the importance of conventional and social-movement-related citizenship behaviors

Country	Conventional citizenship behaviors Average scores in 2022	Social-movement-related citizenship behaviors Average scores in 2022	Correlation between scales
Bulgaria	47 (0.3) ▽	49 (0.3) △	**0.50** (0.02)
Chinese Taipei	54 (0.2) ▲	52 (0.2) ▲	**0.71** (0.01)
Colombia	52 (0.3) △	52 (0.3) ▲	**0.54** (0.02)
Croatia[1]	49 (0.2)	51 (0.3) △	**0.42** (0.03)
Cyprus	50 (0.3) △	49 (0.3) △	**0.61** (0.02)
Estonia	44 (0.2) ▼	45 (0.2) ▽	**0.51** (0.02)
France	51 (0.2) △	45 (0.2) ▼	**0.49** (0.02)
Italy	53 (0.3) ▲	51 (0.3) △	**0.45** (0.02)
Latvia[1]	47 (0.3) ▽	46 (0.2) ▽	**0.60** (0.02)
Lithuania	49 (0.3)	48 (0.3)	**0.59** (0.02)
Malta	48 (0.3) ▽	49 (0.4)	**0.50** (0.03)
Netherlands†	47 (0.2) ▽	43 (0.2) ▼	**0.51** (0.03)
Norway (9)[1]	50 (0.2) △	47 (0.2) ▽	**0.65** (0.01)
Poland	50 (0.2) △	51 (0.2) △	**0.39** (0.02)
Romania	48 (0.3) ▽	51 (0.3) △	**0.34** (0.03)
Serbia	45 (0.4) ▼	49 (0.2)	**0.41** (0.02)
Slovak Republic	47 (0.3) ▽	47 (0.2) ▽	**0.44** (0.02)
Slovenia	50 (0.3) △	48 (0.2) ▽	**0.63** (0.02)
Spain	48 (0.2)	50 (0.2) △	**0.43** (0.02)
Sweden[1]	48 (0.2)	46 (0.2) ▽	**0.54** (0.02)
ICCS 2022 average	49 (0.1)	48 (0.1)	**0.51** (0.00)
Countries not meeting sample participation requirements			
Brazil	54 (0.2)	51 (0.2)	**0.58** (0.01)
Denmark	47 (0.2)	42 (0.2)	**0.48** (0.02)
German benchmarking participant meeting sample participation requirements			
North Rhine-Westphalia	49 (0.2)	45 (0.2) ▼	**0.52** (0.02)
German benchmarking participant not meeting sample participation requirements			
Schleswig-Holstein	50 (0.4)	46 (0.3)	**0.50** (0.03)



Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 3 score points below ICCS 2022 average

On average across items, students with a score in the range with this color have more than 50% probablity to indicate:

	Not very important or not important at all
	Quite or very important

Average score for expected legal activities +/- confidence interval

Average score for expected illegal activities +/- confidence interval

In Chinese Taipei and Colombia, national average scores for social-movement-related citizenship were more than three scale points higher than the ICCS 2022 average, while these were more than three points below average in France and the Netherlands.

ICCS 2022 also asked teachers to rate their perceptions of the importance of conventional and social-movement-related citizenship behavior, using the same items and response categories as we used for students. Even though the sampling design did not permit linking teacher and student data directly it was possible to compare results for the two populations at country level.

Teachers' perceptions of the importance of conventional and social-movement-related citizenship followed similar patterns to those of students. However, there were more moderate correlations between the two scales (with an ICCS 2022 average of 0.35) across countries where this survey had met sample participation requirements (Table 5.16). When considering all countries including those that had not met IEA sample participation requirements, the associations were similar with a slightly higher average correlation coefficient of 0.43.

For conventional citizenship we observed the highest average scores of more than three scale points above the ICCS 2022 average in Italy, Norway, and Poland, and national scores below average by more than three scale points in Romania, Serbia, the Slovak Republic, and Slovenia. Scale scores for social-movement-related citizenship were highest, at three scale points above the ICCS 2022 average, in Bulgaria, Italy, and Romania, and more than three scale below average in Chinese Taipei, Lithuania, Norway, and the Slovak Republic.

At country level, student scale scores correlated moderately to strongly with those of teachers. The correlation coefficients between teacher and student average scores, including those countries that had not met the sampling for the teacher survey, were 0.52 for conventional citizenship and 0.76 for social-movement-related citizenship.

All four items relating to the importance of globally oriented citizenship attracted high levels of support (as measured as by percentages of students who rated the behaviors as very or quite important): Four out of five students (83%) rated helping people in less developed countries, supporting initiatives that promote equal opportunities for all people across the world (81%), and making changes to one's personal lifestyle in order to become more environmentally friendly (80%), as important for good citizenship, while almost three quarters (72%) viewed showing interest in different cultures and languages as quite important (Table 5.17). Scale scores for the importance of global citizenship among students ranged from 47 in Latvia, the Netherlands, and North-Rhine Westphalia to 53 in Italy.

Percentages of teachers rating globally oriented citizenship behaviors as important were even higher than those among students: About nine out of 10 teachers regarded showing interest in different cultures and languages (average percentage of 89%), making changes to one's personal lifestyle to become more environmentally friendly (92%), supporting initiatives that promote equal opportunities for all people across the world (93%), and helping people in less developed countries (96%) as important for good citizenship (Table 5.18). National scale scores for the importance of globally oriented citizenship among teachers ranged from 44 in Chinese Taipei to 57 in Italy (Table 5.18).

Globally oriented citizenship behaviors were viewed as more important, with significant differences in all countries, and almost four scale points on average, among students with higher levels of civic knowledge when compared to other students with lower levels of civic knowledge (Table 5.19). This difference was largest (by more than five scale points) in Cyprus and Malta. Social-movement-related-citzenship was also rated more important by students with higher levels of civic knowledge and differences were again statistically significant in all countries with an average difference of three to four scale points. This difference was significant in all countries and was largest (by more than five scale points) among students in Bulgaria, Chinese Taipei, Cyprus, Malta, and Romania.

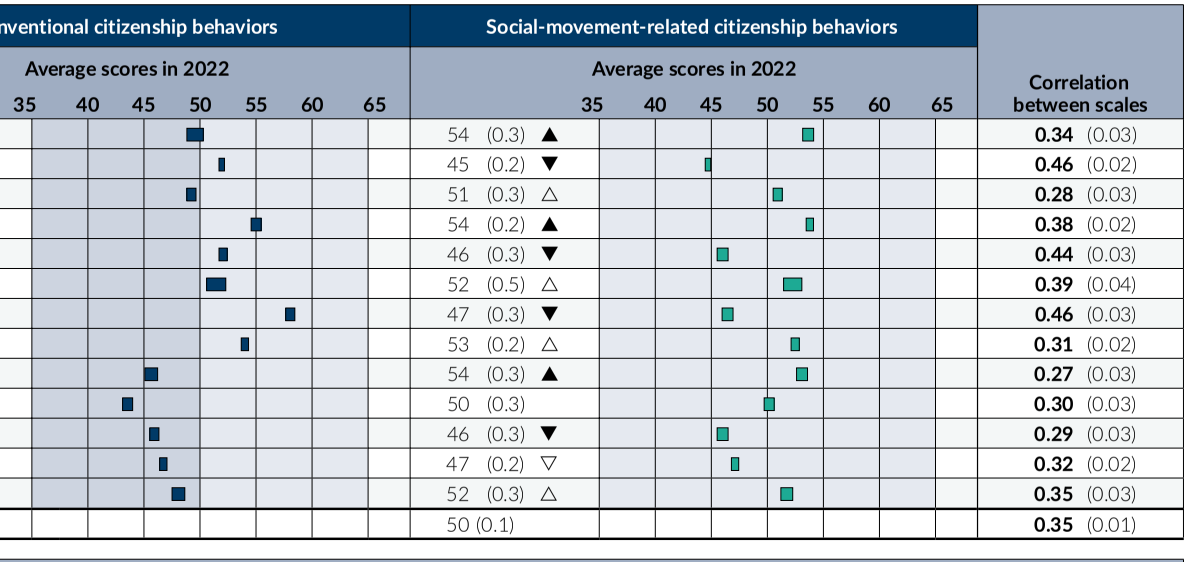
We found no consistent associations between students' views of the importance of conventional citizenship with civic knowledge. On average, there was no significant difference in the importance of conventional citizenship between students with low and high levels of civic knowledge. While in Chinese Taipei, Croatia, Cyprus, and North Rhine-Westphalia students with high levels of civic knowledge had slightly higher scale scores reflecting the importance of conventional citizenship behaviors, these were somewhat higher among students with lower civic knowledge in Bulgaria, Colombia, Norway, Romania, the Slovak Republic, and Spain.

5.5.2 Attitudes to Environmental Protection

ICCS 2022 included a question that asked students to rate their agreement with five statements related to the protection of the environment. "[Country] should contribute to protecting the environment in other countries" (average percentage of students strongly agreeing or agreeing: 73%); "governments should focus more on protecting the environment than on

Table 5.16 National average scale scores for teachers' perceptions of the importance of conventional and social-movement-related citizenship behaviors

Country	Conventional citizenship behaviors Average scores in 2022	Social-movement-related citizenship behaviors Average scores in 2022	Correlation between scales
Bulgaria†	49 (0.4)	54 (0.3) ▲	**0.34** (0.03)
Chinese Taipei	52 (0.2) △	45 (0.2) ▼	**0.46** (0.02)
Croatia	49 (0.3) ▽	51 (0.3) △	**0.28** (0.03)
Italy	55 (0.3) ▲	54 (0.2) ▲	**0.38** (0.02)
Lithuania	52 (0.2) △	46 (0.3) ▼	**0.44** (0.03)
Malta	51 (0.5) △	52 (0.5) △	**0.39** (0.04)
Norway (9)	58 (0.2) ▲	47 (0.3) ▼	**0.46** (0.03)
Poland	54 (0.2) ▲	53 (0.2) △	**0.31** (0.02)
Romania	45 (0.3) ▼	54 (0.3) ▲	**0.27** (0.03)
Serbia	43 (0.3) ▼	50 (0.3)	**0.30** (0.03)
Slovak Republic	46 (0.3) ▼	46 (0.3) ▼	**0.29** (0.03)
Slovenia	46 (0.2) ▼	47 (0.2) ▽	**0.32** (0.02)
Spain	48 (0.4) ▽	52 (0.3) △	**0.35** (0.03)
ICCS 2022 average	50 (0.1)	50 (0.1)	**0.35** (0.01)
Countries not meeting sample participation requirements			
Brazil	58 (0.4)	55 (0.3)	**0.55** (0.03)
Colombia	58 (0.8)	54 (0.4)	**0.44** (0.04)
Cyprus	52 (0.4)	54 (0.3)	**0.33** (0.04)
Denmark	56 (0.9)	40 (0.7)	**0.35** (0.06)
Estonia	49 (0.2)	45 (0.2)	**0.38** (0.03)
France	53 (0.3)	47 (0.3)	**0.37** (0.02)
Latvia	54 (0.3)	48 (0.3)	**0.41** (0.03)
Netherlands	51 (0.4)	39 (0.4)	**0.36** (0.03)
Sweden	56 (0.3)	45 (0.4)	**0.37** (0.03)
German benchmarking participant not meeting sample participation requirements			
North Rhine-Westphalia	56 (0.2)	42 (0.2)	**0.43** (0.03)



Notes:
Differences between teacher and student surveys in response rates have resulted in different categorization of countries according to sampling criteria than was the case for data based on student surveys. Response rates for the teacher survey in Schleswig-Holstein did not satisfy the criteria for inclusion in this table.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates after replacement schools were included.
1 National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 3 score points below ICCS 2022 average

On average across items, students with a score in the range with this color have more than 50% probablity to indicate:

	Not very important or not important at all
	Quite or very important

Average score for expected legal activities +/- confidence interval

Average score for expected illegal activities +/- confidence interval

Table 5.17 National percentages and scale scores indicating students' perceptions of the importance of globally oriented citizenship behaviors

Country	Percentages of students who view these behaviours as quite or very important: Helping people in less developed countries (%)			Supporting initiatives that promote equal opportunities for all people across the world (%)			Making changes to one's personal lifestyle in order to become more environmentally friendly (%)			Showing interest in different cultures and languages (%)			Average scale scores indicating students' beliefs about the importance of globally oriented citizenship behaviors		
Bulgaria	70	(0.8)	▼	74	(1.2)	▽	75	(1.0)	▽	69	(1.0)	▽	48	(0.3)	▽
Chinese Taipei	84	(0.7)	△	89	(0.6)	△	90	(0.6)	▲	76	(0.8)	△	52	(0.2)	△
Colombia	90	(0.7)	△	87	(0.6)	△	86	(0.6)	△	79	(0.8)	△	53	(0.2)	△
Croatia[1]	92	(0.6)	△	88	(0.7)	△	88	(0.8)	△	83	(0.9)	▲	52	(0.2)	△
Cyprus	80	(0.9)	▽	77	(0.9)	▽	78	(1.0)		67	(1.0)	▽	50	(0.3)	
Estonia	77	(1.1)	▽	79	(1.1)	▽	80	(1.2)		71	(0.9)		48	(0.3)	▽
France	89	(0.7)	△	84	(0.7)	△	85	(0.8)	△	75	(0.9)	△	52	(0.2)	△
Italy	91	(0.6)	△	87	(0.9)	△	89	(0.7)	△	78	(1.0)	△	53	(0.2)	▲
Latvia[1]	75	(1.1)	▽	74	(1.0)	▽	72	(1.1)	▽	66	(1.0)	▽	47	(0.2)	▽
Lithuania	84	(0.6)	△	80	(0.8)		84	(0.8)	△	73	(1.0)		50	(0.2)	
Malta	85	(1.3)		82	(1.4)		78	(1.7)		74	(1.4)		51	(0.4)	
Netherlands†	74	(1.2)	▽	75	(1.1)	▽	77	(1.2)	▽	61	(1.2)	▼	47	(0.3)	▼
Norway (9)[1]	85	(0.6)	△	84	(0.5)	△	67	(0.8)	▼	74	(0.8)	△	49	(0.2)	▽
Poland	86	(0.6)	△	86	(0.6)	△	84	(0.7)	△	70	(0.7)	▽	50	(0.1)	
Romania	83	(1.9)		85	(1.8)	△	82	(1.7)		74	(1.2)		51	(0.4)	△
Serbia	77	(1.0)	▽	69	(1.1)	▼	66	(1.2)	▼	71	(0.9)		48	(0.3)	▽
Slovak Republic	80	(0.9)	▽	77	(0.9)	▽	80	(0.7)		70	(1.0)		49	(0.2)	▽
Slovenia	82	(0.8)		80	(0.9)		76	(0.9)	▽	67	(1.0)	▽	49	(0.2)	▽
Spain	88	(0.8)	△	86	(0.7)	△	85	(0.8)	△	76	(0.8)	△	52	(0.2)	△
Sweden[1]	82	(0.8)		78	(0.8)	▽	74	(0.9)	▽	62	(1.3)	▽	48	(0.2)	▽
ICCS 2022 average	83	(0.2)		81	(0.2)		80	(0.2)		72	(0.2)		50	(0.1)	
Countries not meeting sample participation requirements															
Brazil	85	(0.7)		85	(0.7)		71	(0.7)		78	(0.7)		51	(0.2)	
Denmark	82	(0.8)		73	(0.9)		66	(1.1)		61	(1.0)		46	(0.2)	
German benchmarking participant meeting sample participation requirements															
North Rhine-Westphalia	84	(0.8)		67	(0.9)	▼	68	(1.0)	▼	57	(1.2)	▼	47	(0.2)	▼
German benchmarking participant not meeting sample participation requirements															
Schleswig-Holstein	84	(0.9)		70	(1.1)		70	(1.7)		58	(1.7)		47	(0.3)	

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 10 percentage or 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage or 3 score points below ICCS 2022 average

Table 5.18 National percentages and scale scores indicating teachers' perceptions of the importance of globally oriented citizenship behaviors

Country	Percentages of students who view these behaviors as quite or very important:				Average scale scores indicating teachers' perceptions of the importance of globally oriented citizenship behaviors
	Showing interest in different cultures and languages (%)	Making changes to one's personal lifestyle in order to become more environmentally friendly (%)	Supporting initiatives that promote equal opportunities for all people across the world (%)	Helping people in less developed countries (%)	
Bulgaria†	96 (0.6)	94 (0.6) △	95 (0.6) △	84 (1.2) ▽	52 (0.3) △
Chinese Taipei	96 (0.5)	88 (0.8) ▽	83 (0.8) ▽	77 (1.1) ▼	44 (0.2) ▼
Croatia	98 (0.5) △	97 (0.5) △	96 (0.5) △	95 (0.7) △	50 (0.3)
Italy	100 (0.1) △	98 (0.3) △	98 (0.3) △	97 (0.4) △	57 (0.2) ▲
Lithuania	97 (0.4) △	87 (1.2) ▽	91 (0.9)	84 (1.0) ▽	47 (0.3) ▼
Malta	97 (1.0)	96 (1.5) △	95 (1.4) △	95 (1.5) △	53 (0.6) ▲
Norway (9)	90 (1.0) ▽	91 (0.9)	91 (0.9)	91 (1.1) △	48 (0.3) ▽
Poland	98 (0.4) △	95 (0.6) △	88 (0.7) ▽	95 (0.5) △	50 (0.2) △
Romania	98 (0.4) △	96 (0.6) △	95 (0.6) △	89 (0.9)	53 (0.4) ▲
Serbia	90 (1.2) ▽	91 (1.0)	93 (0.6)	87 (1.7)	49 (0.3) ▽
Slovak Republic	96 (0.6)	90 (1.0) ▽	85 (1.2) ▽	85 (1.2) ▽	47 (0.2) ▼
Slovenia	93 (0.6) ▽	88 (0.7) ▽	84 (0.7) ▽	82 (0.8) ▽	46 (0.2) ▼
Spain	97 (0.5) △	98 (0.5) △	96 (0.7) △	95 (0.7) △	54 (0.3) ▲
ICCS 2022 average	96 (0.2)	93 (0.2)	92 (0.2)	89 (0.3)	50 (0.1)
Countries not meeting sample participation requirements					
Brazil	91 (1.0)	97 (0.7)	95 (0.8)	89 (1.0)	51 (0.3)
Colombia	98 (0.8)	98 (0.7)	96 (1.0)	83 (2.0)	53 (0.4)
Cyprus	96 (0.7)	97 (0.7)	94 (1.0)	95 (0.8)	54 (0.3)
Denmark	85 (3.2)	90 (2.2)	90 (2.7)	87 (2.3)	46 (0.7)
Estonia	97 (0.5)	83 (1.0)	93 (0.7)	70 (1.3)	46 (0.3)
France	97 (0.6)	93 (0.9)	94 (0.8)	88 (1.3)	51 (0.3)
Latvia	91 (0.8)	90 (0.9)	93 (0.8)	78 (1.4)	47 (0.3)
Netherlands	91 (1.1)	82 (1.2)	88 (1.1)	69 (1.7)	44 (0.3)
Sweden	94 (0.8)	93 (0.8)	92 (0.8)	90 (1.1)	49 (0.3)
German benchmarking participant not meeting sample participation requirements					
North Rhine-Westphalia	92 (0.7)	77 (1.0)	87 (0.7)	79 (0.9)	45 (0.2)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.

National ICCS 2022 results are:
▲ More than 10 percentage or 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage or 3 score points below ICCS 2022 average

Table 5.19 National average scores for students' perceptions of the importance of conventional, social-movement-related, and globally oriented citizenship behaviors by their level of civic knowledge

Country	Importance of conventional citizenship behaviors: Civic knowledge below Level B (below 479)	Importance of conventional citizenship behaviors: Civic knowledge at or above Level B (479 and above)	Importance of social-movement-related citizenship behaviors: Civic knowledge below Level B (below 479)	Importance of social-movement-related citizenship behaviors: Civic knowledge at or above Level B (479 and above)	Importance of globally oriented citizenship behaviors: Civic knowledge below Level B (below 479)	Importance of globally oriented citizenship behaviors: Civic knowledge at or above Level B (479 and above)
Bulgaria	**48** (0.5)	46 (0.4)	47 (0.4)	**52** (0.3)	47 (0.4)	**50** (0.3)
Chinese Taipei	51 (1.0)	**55** (0.2)	47 (0.8)	**52** (0.2)	48 (0.8)	**53** (0.2)
Colombia	**53** (0.4)	50 (0.3)	50 (0.3)	**54** (0.3)	52 (0.3)	**55** (0.3)
Croatia[1]	48 (0.7)	**49** (0.3)	47 (0.5)	**52** (0.3)	50 (0.5)	**53** (0.3)
Cyprus	50 (0.4)	51 (0.4)	47 (0.4)	**53** (0.3)	47 (0.4)	**53** (0.3)
Estonia	44 (0.6)	45 (0.2)	43 (0.4)	**46** (0.2)	45 (0.5)	**49** (0.3)
France	51 (0.5)	51 (0.3)	44 (0.4)	**46** (0.2)	50 (0.4)	**54** (0.2)
Italy	53 (0.6)	53 (0.4)	49 (0.4)	**52** (0.3)	50 (0.4)	**54** (0.2)
Latvia[1]	46 (0.4)	**47** (0.4)	44 (0.3)	**48** (0.3)	45 (0.4)	**49** (0.3)
Lithuania	48 (0.4)	49 (0.3)	45 (0.3)	**50** (0.3)	47 (0.3)	**52** (0.3)
Malta	48 (0.6)	48 (0.3)	46 (0.7)	**51** (0.3)	48 (0.7)	**53** (0.3)
Netherlands†	47 (0.5)	46 (0.3)	42 (0.4)	**43** (0.2)	45 (0.5)	**48** (0.3)
Norway (9)[1]	**51** (0.5)	49 (0.2)	46 (0.4)	**48** (0.2)	47 (0.4)	**50** (0.2)
Poland	49 (0.4)	50 (0.2)	48 (0.4)	**51** (0.2)	48 (0.4)	**51** (0.1)
Romania	**49** (0.4)	47 (0.4)	48 (0.4)	**53** (0.3)	49 (0.3)	**54** (0.4)
Serbia	45 (0.6)	44 (0.4)	47 (0.3)	**51** (0.4)	46 (0.4)	**50** (0.3)
Slovak Republic	**48** (0.5)	46 (0.3)	45 (0.3)	**48** (0.2)	47 (0.4)	**50** (0.2)
Slovenia	49 (0.4)	50 (0.3)	45 (0.4)	**49** (0.2)	47 (0.4)	**50** (0.3)
Spain	**49** (0.5)	48 (0.3)	48 (0.4)	**51** (0.2)	50 (0.5)	**53** (0.2)
Sweden[1]	49 (0.6)	48 (0.2)	45 (0.4)	**46** (0.2)	45 (0.5)	**48** (0.3)
ICCS 2022 average	49 (0.1)	49 (0.1)	46 (0.1)	**50** (0.1)	48 (0.1)	**51** (0.1)
Countries not meeting sample participation requirements						
Brazil	53 (0.3)	54 (0.4)	50 (0.3)	**54** (0.3)	49 (0.3)	**53** (0.3)
Denmark	49 (0.1)	49 (0.1)	46 (0.1)	**50** (0.1)	48 (0.1)	**52** (0.1)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	51 (0.4)	**48** (0.3)	45 (0.3)	**45** (0.2)	46 (0.4)	**47** (0.3)
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	49 (0.1)	**49** (0.1)	46 (0.1)	**49** (0.1)	47 (0.1)	**51** (0.1)

Notes:
Score averages which are significantly larger $p < 0.05$) than those in the comparison group are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups not statistically significant at $p < 0.05$.

supporting economic growth" (79%); "every citizen needs to contribute to the reduction of pollution" (90%); "all human beings should take responsibility for preserving the natural world" (90%); and "countries need to work together to preserve the world's natural resources" (92%) (Table 5.20).

On average across participating ICCS 2022 countries, there was strong to overwhelming support for these statements, but we also observed differences across countries. For example, national percentages of students expressing agreement that governments should focus more on protecting the environment than on supporting economic growth ranged from 62% in Poland to 88% in France.

The items were used to derive a reliable scale (ICCS 2022 average Cronbach's alpha = 0.77). Results show that scores for support for environmental protection were significantly higher than, and more than three scale points above, the ICCS 2022 average in France and Chinese Taipei. We recorded the lowest national average scale scores for support for environmental protection (of more than three scale points below average) in the Netherlands and the Slovak Republic.

When reviewing the associations between support for environmental protection and students' gender, socioeconomic status, and levels of civic knowledge, we found that students with higher levels of civic knowledge expressed stronger support than less knowledgeable students, with an ICCS 2022 average difference of three scale points (Table 5.21). These differences were significant in all countries, and we recorded the largest differences (by more than four scale points) in Bulgaria, Cyprus, Latvia, and Sweden.

We also observed significant differences in average scores reflecting support for environmental protection between below and above average socioeconomic groups, with students from higher socioeconomic background being more supportive; the ICCS 2022 average difference was almost two scale points. The largest differences (of more than three score points) were recorded among students from Cyprus and Malta.

On average there was also a significant average difference of a little more than two scale points between female and male students, with the former expressing more support than male students. This positive association with female gender was significant in 17 countries and the benchmarking entity North Rhine- Westphalia. However, in Chinese Taipei we found that male students had significantly higher score than female students.

5.5.3 Perceptions of Global Environmental Threats

In ICCS 2016, students were asked to rate to what extent several global problems were regarded as threats to the world's future. The ICCS 2022 student questionnaire used a slightly revised set of items but retained sufficient common items to allow the measurement of changes in perceptions over time. ICCS 2022 asked students to indicate the extent to which they thought each of a set of globally relevant issues were a threat to the world's future ("to a large extent," "to a moderate extent," "to a small extent," or "not at all"). We analyzed the percentages of students rating each issue as a threat to a large extent. Ten of the issues had been included in ICCS 2016 and one new item (loss of biodiversity) was added. The issues related to environmental threats were (average percentages of students who rated each as a threat to a large extent are shown in parentheses): pollution (80%), water shortages (72%), climate change (68%), and loss of biodiversity (61%) (Table 5.22).

Between 2016 and 2022, there were increases of 14 percentage points in the percentages of students seeing climate change as a threat to a large extent, six percentage points in the case of water shortages, and three percentage points in the case of pollution. The largest increase in the percentage viewing climate change as a threat were observed in Italy (31 percentage points) and Estonia (21 percentage points). The largest increase in the percentage viewing water shortages as a threat was in Chinese Taipei (20 percentage points), while there was a considerable decrease in these percentages in Colombia (by 18 percentage points). We found the largest increase in the percentage of students viewing pollution as a threat in Estonia (18 percentage points).

A scale based on student responses to the four environmental threats was constructed to measure students' concern about threats to the global environment. When reviewing the national average scale scores, results suggest that concern about threats to the global environment was greatest in France (three scale points above the ICCS 2022 average) and lowest in Serbia (three scale points below average) (Table 5.22).

On average, students with higher levels of civic knowledge had significantly higher scores on the environmental concern scale than those with lower levels of civic knowledge, with an average difference of almost seven score points. The differences were significant in all countries and were largest in Bulgaria, Colombia, Cyprus, Malta, Slovenia, and Sweden (all have more than eight points), while the smallest difference was recorded in Poland (less than five) (Table 5.23).

Table 5.20 National percentages and scale scores indicating students' attitudes toward environmental protection

Country	Percentages of students who agree or strongly agree with the following statements:					Average scale scores indicating students' positive attitudes toward environmental protection
	Countries need to work together to preserve the world's natural resources (%)	Every citizen needs to contribute to the reduction of pollution (%)	All human beings should take responsibility for preserving the natural world (%)	Governments should focus more on protecting the environment than on supporting economic growth (%)	Country of test should contribute to protecting the environment in other countries (%)	
Bulgaria	85 (1.1) ▽	87 (0.9) ▽	85 (1.0) ▽	77 (0.8) ▽	67 (1.0) ▽	49 (0.3) ▽
Chinese Taipei	98 (0.3) △	97 (0.3) △	98 (0.3) △	79 (0.7)	87 (0.7) ▲	53 (0.2) ▲
Colombia	91 (0.7)	91 (0.7)	91 (0.6) △	84 (0.6) △	81 (0.8) △	52 (0.3) △
Croatia[1]	96 (0.4) △	96 (0.4) △	95 (0.5) △	84 (0.9) △	74 (1.0)	51 (0.2) △
Cyprus	86 (0.7) ▽	88 (0.7) ▽	86 (0.9) ▽	79 (1.0)	75 (0.9) △	50 (0.3)
Estonia	94 (0.6) △	89 (0.8)	90 (0.7)	76 (1.1) ▽	74 (1.3)	49 (0.3) ▽
France	93 (0.6) △	94 (0.5) △	94 (0.6) △	88 (0.7) △	77 (0.8) △	53 (0.2) ▲
Italy	95 (0.7) △	96 (0.4) △	95 (0.5) △	82 (0.9) △	80 (0.9) △	52 (0.2) △
Latvia[1]	91 (0.8)	85 (0.8) ▽	89 (0.8)	66 (1.1) ▼	65 (1.1) ▽	47 (0.2) ▽
Lithuania	93 (0.5) △	93 (0.6) △	91 (0.6) △	79 (0.9)	73 (1.0)	50 (0.2)
Malta	92 (1.9)	91 (1.5)	91 (1.3)	83 (1.2) △	78 (1.8) △	51 (0.5) △
Netherlands†	88 (1.0) ▽	82 (1.3) ▽	82 (1.0) ▽	80 (1.0)	65 (1.3) ▽	47 (0.3) ▼
Norway (9)[1]	94 (0.4) △	89 (0.5) ▽	92 (0.4) △	81 (0.7) △	75 (0.9) △	50 (0.2)
Poland	95 (0.4) △	89 (0.6)	89 (0.6)	62 (0.9) ▼	71 (0.8) ▽	47 (0.2) ▽
Romania	91 (1.3)	91 (1.2)	89 (1.5)	81 (1.3)	62 (1.9) ▼	49 (0.3) ▽
Serbia	90 (0.8)	92 (0.7) △	89 (0.8)	82 (0.9) △	65 (1.4) ▽	50 (0.3)
Slovak Republic	89 (1.0) ▽	86 (0.7) ▽	68 (0.9) ▼	66 (1.0) ▼	80 (1.0) △	47 (0.2) ▼
Slovenia	89 (0.8) ▽	90 (0.7)	88 (0.8) ▽	87 (0.6) △	63 (0.9) ▼	49 (0.2) ▽
Spain	94 (0.5) △	94 (0.5) △	94 (0.5) △	83 (0.7) △	85 (0.7) ▲	53 (0.2) △
Sweden[1]	94 (0.6) △	88 (0.6) ▽	93 (0.5) △	81 (0.8) △	72 (0.8)	50 (0.2)
ICCS 2022 average	92 (0.2)	90 (0.2)	90 (0.2)	79 (0.2)	73 (0.2)	50 (0.1)
Countries not meeting sample participation requirements						
Brazil	91 (0.6)	89 (0.7)	91 (0.6)	80 (0.9)	83 (0.7)	53 (0.2)
Denmark	93 (0.6)	88 (0.6)	91 (0.8)	76 (1.1)	71 (1.0)	48 (0.2)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	92 (0.6)	78 (0.8) ▼	86 (0.8) ▽	81 (1.0)	73 (1.0)	48 (0.2) ▽
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	92 (0.9)	81 (1.1)	90 (0.7)	82 (1.0)	74 (1.3)	49 (0.3)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 10 percentage or 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly above ICCS 2022 average
▼ More than 10 percentage or 3 score points below ICCS 2022 average

Table 5.21 National averages for students' attitudes toward environmental protection by gender, socioeconomic background, and level of civic knowledge

Country	Scale score average by gender group: Male students	Scale score average by gender group: Female students	Scale score average by socioeconomic background: Below country average	Scale score average by socioeconomic background: At or above country average	Scale score average by level of civic knowledge: Civic knowledge below Level B (below 479)	Scale score average by level of civic knowledge: Civic knowledge at or above Level B (479 and above)
Bulgaria	47 (0.4)	**50** (0.3)	48 (0.4)	**50** (0.3)	47 (0.3)	**51** (0.3)
Chinese Taipei	**54** (0.3)	53 (0.2)	53 (0.3)	54 (0.2)	51 (0.8)	**54** (0.2)
Colombia	52 (0.3)	52 (0.4)	51 (0.3)	**53** (0.3)	51 (0.4)	**54** (0.3)
Croatia[1]	50 (0.3)	**53** (0.3)	51 (0.3)	52 (0.3)	50 (0.4)	**52** (0.3)
Cyprus	48 (0.4)	**52** (0.3)	48 (0.4)	**51** (0.3)	48 (0.4)	**53** (0.3)
Estonia	47 (0.4)	**50** (0.3)	48 (0.3)	**50** (0.4)	46 (0.5)	**50** (0.3)
France	53 (0.3)	**54** (0.3)	52 (0.3)	**54** (0.3)	52 (0.5)	**54** (0.3)
Italy	51 (0.4)	**53** (0.2)	51 (0.3)	**53** (0.3)	50 (0.4)	**53** (0.2)
Latvia[1]	46 (0.3)	**48** (0.3)	47 (0.3)	**48** (0.3)	45 (0.3)	**48** (0.3)
Lithuania	48 (0.3)	**52** (0.3)	49 (0.3)	**51** (0.3)	48 (0.4)	**52** (0.2)
Malta	51 (0.6)	52 (0.5)	50 (0.7)	**53** (0.2)	49 (0.9)	**53** (0.2)
Netherlands†	46 (0.4)	**48** (0.5)	46 (0.4)	**48** (0.4)	44 (0.6)	**48** (0.3)
Norway (9)[1]	48 (0.2)	**52** (0.2)	48 (0.3)	**51** (0.2)	47 (0.5)	**51** (0.2)
Poland	46 (0.3)	**48** (0.2)	47 (0.2)	**48** (0.2)	46 (0.4)	**48** (0.2)
Romania	48 (0.4)	**50** (0.4)	48 (0.3)	**50** (0.4)	47 (0.4)	**51** (0.4)
Serbia	49 (0.4)	**52** (0.3)	50 (0.4)	51 (0.4)	50 (0.4)	**52** (0.4)
Slovak Republic	46 (0.3)	**48** (0.3)	46 (0.3)	**48** (0.2)	45 (0.3)	**48** (0.3)
Slovenia	48 (0.3)	**50** (0.2)	48 (0.3)	**50** (0.3)	47 (0.3)	**50** (0.2)
Spain	52 (0.3)	**54** (0.3)	52 (0.3)	**53** (0.3)	51 (0.5)	**54** (0.2)
Sweden[1]	48 (0.3)	**52** (0.3)	49 (0.3)	**51** (0.2)	47 (0.8)	**51** (0.2)
ICCS 2022 average	49 (0.1)	**51** (0.1)	49 (0.1)	**51** (0.1)	48 (0.1)	**51** (0.1)
Countries not meeting sample participation requirements						
Brazil	52 (0.3)	**53** (0.3)	52 (0.3)	**53** (0.3)	51 (0.3)	**55** (0.3)
Denmark	47 (0.3)	**49** (0.3)	46 (0.3)	**49** (0.2)	45 (0.4)	**49** (0.2)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	47 (0.3)	**49** (0.3)	47 (0.3)	**49** (0.4)	46 (0.4)	**49** (0.3)
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	48 (0.4)	**50** (0.4)	48 (0.4)	**50** (0.4)	46 (0.7)	**50** (0.4)

Notes:
Score averages which are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups not statistically significant at $p < 0.05$.

Table 5.22 National average percentages and scale scores for students' perceptions of global environmental threats

Country	Percentages of students viewing this to a large extent as a threat to the worlds future:										Average scale scores indicating students' concern about threats to the global environment
	Pollution			Climate change			Water shortages			Loss of biodiversity	
	2022	2016	Difference	2022	2016	Difference	2022	2016	Difference	2022	
Bulgaria	76 (1.2) ▽	74 (1.2)	2 (1.6)	62 (1.2) ▽	51 (1.2)	**11** (1.7)	72 (1.2)	65 (1.3)	**7** (1.8)	61 (1.2)	49 (0.3) ▽
Chinese Taipei	83 (0.7) △	75 (0.8)	**8** (1.1)	75 (0.8) △	61 (1.0)	**14** (1.2)	80 (0.7) △	60 (0.9)	**20** (1.1)	78 (0.7) ▲	53 (0.2) △
Colombia	77 (1.4)	90 (0.7)	**-13** (1.6)	61 (1.4) ▽	77 (0.9)	**-16** (1.6)	70 (1.2) ▽	88 (0.7)	**-18** (1.4)	65 (1.3) △	49 (0.4) ▽
Croatia[1]	80 (0.8)	67 (1.1)	**13** (1.4)	66 (1.2) ▽	47 (1.3)	**19** (1.7)	78 (1.0) △	77 (1.0)	0 (1.4)	66 (1.0) △	50 (0.2) △
Cyprus	76 (1.0) ▽	-	-	64 (1.1) ▽	-	-	64 (0.9) ▽	-	-	56 (1.0) ▽	48 (0.2) ▽
Estonia	82 (0.9) △	64 (1.1)	**18** (1.4)	69 (1.3)	48 (1.4)	**21** (1.9)	75 (1.1) △	72 (1.0)	3 (1.5)	65 (1.3) △	51 (0.3) △
France	85 (0.7) △	-	-	82 (0.8) ▲	-	-	82 (0.8) ▲	-	-	74 (0.9) ▲	53 (0.2) △
Italy	86 (0.7) △	84 (0.7)	**2** (1.0)	76 (0.9) △	44 (1.2)	**31** (1.5)	84 (0.8) ▲	71 (1.0)	**13** (1.3)	64 (1.2)	52 (0.2) △
Latvia[1]	82 (0.9) △	75 (1.0)	**6** (1.3)	70 (1.3)	50 (1.0)	**20** (1.7)	72 (1.0)	67 (1.1)	**5** (1.4)	61 (1.2)	50 (0.3)
Lithuania	86 (0.7) △	86 (0.7)	0 (1.0)	75 (1.0) △	57 (1.1)	**19** (1.5)	85 (0.8) ▲	76 (1.1)	**9** (1.4)	67 (1.1) △	52 (0.2) △
Malta	73 (1.4) ▽	63 (0.9)	**10** (1.7)	69 (1.3)	51 (0.9)	**17** (1.6)	67 (1.9) ▽	66 (0.8)	1 (2.0)	57 (1.6) ▽	49 (0.4) ▽
Netherlands†	66 (1.3) ▼	63 (1.3)	3 (1.8)	66 (1.5)	48 (1.4)	**18** (2.0)	59 (1.6) ▼	44 (1.1)	**15** (2.0)	46 (1.5) ▼	47 (0.4) ▼
Norway (9)[1]	73 (0.8) ▽	76 (0.7)	**-2** (1.1)	75 (0.7) △	66 (0.8)	**9** (1.1)	55 (0.8) ▼	41 (1.0)	**14** (1.3)	53 (0.9) ▽	48 (0.2) ▽
Poland	82 (0.7) △	-	-	65 (0.9) ▽	-	-	80 (0.7) △	-	-	68 (0.9) △	51 (0.2) △
Romania	84 (2.0) △	-	-	60 (1.8) ▽	-	-	81 (2.4) △	-	-	56 (1.6) ▽	50 (0.5)
Serbia	81 (1.0)	-	-	47 (1.1) ▼	-	-	62 (1.3) ▼	-	-	56 (1.0) ▽	47 (0.3) ▼
Slovak Republic	81 (0.9) △	-	-	68 (1.1)	-	-	70 (1.2)	-	-	59 (1.1) ▽	50 (0.3)
Slovenia	81 (0.8)	81 (0.9)	-1 (1.3)	59 (0.9) ▽	47 (1.0)	**12** (1.3)	75 (0.9) △	77 (1.0)	-1 (1.3)	62 (1.0)	50 (0.2)
Spain	82 (0.8) △	-	-	75 (0.9) △	-	-	77 (1.0) △	-	-	63 (1.0)	51 (0.2) △
Sweden[1]	75 (0.8) ▽	79 (0.8)	**-4** (1.1)	71 (0.9) △	68 (0.9)	**3** (1.3)	61 (0.9) ▼	46 (1.1)	**15** (1.5)	52 (1.1) ▽	49 (0.2) ▽
ICCS 2022 average	80 (0.2)	-	-	68 (0.3)	-	-	72 (0.3)	-	-	61 (0.3)	50 (0.1)
ICCS 2016/2022 average	78 (0.3)	75 (0.3)	**3** (0.4)	69 (0.3)	55 (0.3)	**14** (0.4)	72 (0.3)	65 (0.3)	**6** (0.4)	-	-
Countries not meeting sample participation requirements											
Brazil	81 (0.8)	-	-	57 (1.0)	-	-	73 (1.0)	-	-	67 (0.9)	49 (0.2)
Denmark	74 (1.0)	-	-	76 (0.9)	-	-	62 (1.0)	-	-	49 (1.0)	48 (0.2)
German benchmarking participant meeting sample participation requirements											
North Rhine-Westphalia	74 (0.9) ▽	-	-	70 (1.1) △	-	-	77 (1.1) △	-	-	68 (1.1) △	51 (0.2) △
German benchmarking participant not meeting sample participation requirements											
Schleswig-Holstein	75 (1.3)	-	-	73 (1.4)	-	-	77 (1.3)	-	-	71 (1.6)	51 (0.3)

Notes:
Statistically signficiant changes ($p < 0.05$) are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 10 percentage or 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage or 3 score points below ICCS 2022 average

Table 5.23 National average scale scores indicating students' concern about threats to the global environment by gender, socioeconomic background, and level of civic knowledge

Country	Scale score average by gender group: Male students	Scale score average by gender group: Female students	Scale score by socioeconomic background: Below country average	Scale score by socioeconomic background: At or above country average	Scale score average by level of civic knowledge: Civic knowledge below Level B (below 479)	Scale score average by level of civic knowledge: Civic knowledge at or above Level B (479 and above)
Bulgaria	48 (0.4)	**51** (0.4)	47 (0.4)	**51** (0.3)	45 (0.4)	**54** (0.2)
Chinese Taipei	53 (0.2)	53 (0.2)	52 (0.2)	**54** (0.2)	47 (0.7)	**54** (0.1)
Colombia	49 (0.4)	49 (0.5)	48 (0.5)	**51** (0.4)	45 (0.4)	**55** (0.2)
Croatia[1]	49 (0.3)	**52** (0.3)	49 (0.3)	**52** (0.3)	46 (0.5)	**52** (0.2)
Cyprus	46 (0.4)	**50** (0.3)	46 (0.4)	**50** (0.3)	44 (0.3)	**53** (0.3)
Estonia	49 (0.4)	**53** (0.3)	49 (0.3)	**52** (0.4)	45 (0.5)	**53** (0.3)
France	52 (0.3)	**54** (0.2)	52 (0.3)	**54** (0.2)	49 (0.4)	**55** (0.2)
Italy	51 (0.3)	**53** (0.2)	51 (0.3)	**53** (0.3)	47 (0.4)	**54** (0.2)
Latvia[1]	49 (0.4)	**52** (0.3)	49 (0.4)	**51** (0.3)	47 (0.5)	**53** (0.3)
Lithuania	51 (0.3)	**54** (0.2)	51 (0.3)	**54** (0.3)	49 (0.4)	**55** (0.2)
Malta	49 (0.4)	49 (0.5)	47 (0.6)	**51** (0.3)	44 (0.6)	**53** (0.3)
Netherlands†	46 (0.5)	**48** (0.4)	45 (0.5)	**49** (0.4)	42 (0.6)	**50** (0.3)
Norway (9)[1]	47 (0.3)	**51** (0.2)	47 (0.3)	**50** (0.2)	44 (0.3)	**50** (0.2)
Poland	50 (0.2)	**52** (0.2)	50 (0.3)	**52** (0.2)	47 (0.4)	**52** (0.1)
Romania	49 (0.6)	**51** (0.5)	48 (0.3)	**52** (0.5)	46 (0.4)	**53** (0.4)
Serbia	46 (0.3)	**48** (0.3)	45 (0.3)	**48** (0.3)	44 (0.3)	**51** (0.3)
Slovak Republic	48 (0.4)	**52** (0.3)	48 (0.4)	**52** (0.3)	45 (0.5)	**53** (0.2)
Slovenia	48 (0.3)	**51** (0.3)	49 (0.3)	**51** (0.3)	45 (0.4)	**53** (0.2)
Spain	50 (0.2)	**52** (0.3)	50 (0.2)	**52** (0.3)	47 (0.4)	**53** (0.2)
Sweden[1]	47 (0.3)	**50** (0.3)	47 (0.3)	**50** (0.3)	42 (0.5)	**50** (0.2)
ICCS 2022 average	49 (0.1)	**51** (0.1)	49 (0.1)	**51** (0.1)	45 (0.1)	**53** (0.1)
Countries not meeting sample participation requirements						
Brazil	49 (0.3)	**50** (0.3)	48 (0.3)	**51** (0.3)	46 (0.3)	**54** (0.3)
Denmark	47 (0.3)	**50** (0.2)	47 (0.3)	**50** (0.2)	44 (0.6)	**50** (0.2)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia	50 (0.3)	**52** (0.2)	49 (0.3)	**52** (0.3)	47 (0.4)	**52** (0.3)
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	50 (0.4)	**52** (0.5)	50 (0.5)	**52** (0.3)	46 (0.8)	**53** (0.3)

Notes:
Score averages which are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups not statistically significant at $p < 0.05$.

Students from households with a socioeconomic status above the national average recorded significantly higher scores than those from lower socioeconomic backgrounds. The ICCS 2022 average difference was almost three scale points. We observed significant differences in all countries and found the largest differences in Bulgaria and Romania. When comparing gender groups (female versus male students), we recorded significant differences in most countries with an ICCS 2022 average difference of over two scale points, where female students expressed more concern than their male counterparts. We observed the largest differences (by about four scale points) in Estonia and Norway.

ICCS 2022 also investigated students' perceptions of other global issues as important threats to the world's future. While concerns about violent conflict and global financial crisis had increased between 2016 and 2022 in many countries (by an average of five and six percentage points respectively), infectious diseases were viewed by fewer students (declining by an average of nine percentage points) as a large threat for the world's future in 2022 compared to 2016 (Table 5.24a). In ICCS 2022, violent conflict was seen as a threat by the highest percentage of students in Poland (78%) and the lowest percentage of students in the Netherlands (28%). Infectious diseases were seen as a threat by the highest percentage of students in Chinese Taipei (74%) and the lowest percentage of students in Norway (34%). Global financial crises were viewed as a threat by the highest percentage of students in Chinese Taipei (64%) and the lowest percentage of students in the Netherlands (37%).

There were only very small changes between 2016 and 2022 in the percentages of students seeing poverty and unemployment as important threats to the world's future, but an increase of an average of seven percentage points in those seeing overpopulation as a threat to the world's future (Table 5.24b).

In ICCS 2022, poverty was seen as a threat to the world's future by the highest percentage of students in Cyprus and Lithuania (61%), and we recorded the lowest percentage of students with this perception in Poland (32%). Unemployment was seen as a threat by the highest percentage of students in Bulgaria (57%), while the lowest percentage was recorded among students in the Netherlands (30%). Overpopulation was seen as a threat by the highest percentage of students in Estonia and France (58%), while only every third student in Croatia (32%) expressed concern about this issue (Table 5.24b).

Table 5.24a Students' perceptions of global threats from violent conflict, infectious diseases, and global financial crises

Country	Percentages of students viewing this to a large extent as a threat to the world's future:								
	Violent conflict			Infectious diseases			Global financial crises		
	2022	2016	Difference	2022	2016	Difference	2022	2016	Difference
Bulgaria	53 (1.2)	48 (1.2)	**5** (1.7)	57 (1.2) △	62 (1.3)	**-5** (1.7)	56 (1.1) △	53 (1.3)	3 (1.7)
Chinese Taipei	50 (0.9) ▽	50 (0.9)	0 (1.3)	74 (0.7) ▲	66 (0.8)	**8** (1.1)	64 (0.8) ▲	48 (1.0)	**17** (1.3)
Colombia	59 (0.9) △	68 (0.8)	**-9** (1.2)	63 (1.1) ▲	73 (1.1)	**-9** (1.5)	56 (1.2) △	61 (0.9)	**-6** (1.5)
Croatia[1]	53 (1.1)	48 (1.0)	**5** (1.5)	38 (1.1) ▼	69 (0.9)	**-31** (1.4)	49 (1.1)	55 (1.0)	**-6** (1.5)
Cyprus	57 (0.9) △	-	-	54 (0.8) △	-	-	57 (1.1) △	-	-
Estonia	53 (1.2)	44 (1.2)	**9** (1.7)	50 (1.3)	65 (1.1)	**-14** (1.7)	46 (1.4) ▽	26 (1.0)	**21** (1.7)
France	55 (1.0)	-	-	58 (0.9) △	-	-	52 (0.8)	-	-
Italy	63 (1.0) △	55 (1.0)	**8** (1.4)	55 (1.3) △	61 (1.0)	**-5** (1.6)	51 (1.3)	51 (0.9)	-1 (1.5)
Latvia[1]	58 (1.0) △	49 (1.1)	**9** (1.5)	50 (1.1)	68 (1.2)	**-18** (1.6)	59 (1.1) △	44 (1.2)	**15** (1.6)
Lithuania	71 (1.0) ▲	63 (1.1)	**8** (1.5)	63 (1.0) ▲	73 (1.0)	**-10** (1.4)	58 (1.1) △	48 (1.3)	**10** (1.7)
Malta	53 (1.1)	51 (0.8)	2 (1.3)	58 (1.0) △	66 (0.8)	**-7** (1.3)	48 (1.4)	42 (0.8)	**6** (1.6)
Netherlands†	28 (1.3) ▼	27 (0.8)	1 (1.5)	38 (1.2) ▼	42 (1.2)	**-4** (1.7)	37 (1.4) ▼	32 (1.0)	**4** (1.7)
Norway (9)[1]	43 (0.7) ▼	32 (0.7)	**11** (0.9)	34 (0.8) ▼	40 (0.9)	**-6** (1.2)	38 (0.8) ▼	38 (0.7)	0 (1.1)
Poland	78 (0.9) ▲	-	-	51 (0.9)	-	-	43 (0.8) ▽	-	-
Romania	59 (1.2) △	-	-	59 (1.3) △	-	-	60 (1.8) △	-	-
Serbia	47 (1.3) ▽	-	-	46 (1.1) ▽	-	-	41 (1.1) ▽	-	-
Slovak Republic	54 (1.2)	-	-	46 (1.0) ▽	-	-	50 (1.0)	-	-
Slovenia	44 (1.0) ▼	42 (1.1)	2 (1.5)	49 (0.9) ▽	65 (1.0)	**-16** (1.3)	48 (0.9) ▽	47 (1.0)	1 (1.4)
Spain	54 (1.0)	-	-	53 (1.0)			51 (0.9)		
Sweden[1]	47 (0.9) ▽	34 (1.2)	**12** (1.5)	41 (1.2) ▼	34 (0.9)	**7** (1.5)	44 (0.9) ▽	31 (0.9)	**12** (1.3)
ICCS 2022 average	54 (0.2)	-	-	52 (0.2)	-	-	50 (0.3)	-	-
ICCS 2016/2022 average	52 (0.3)	47 (0.3)	**5** (0.4)	52 (0.3)	60 (0.3)	**-9** (0.4)	50 (0.3)	44 (0.3)	**6** (0.4)
Countries not meeting sample participation requirements									
Brazil	70 (0.8)	-	-	73 (0.9)	-	-	64 (1.0)	-	-
Denmark	33 (1.0)	-	-	30 (0.9)	-	-	34 (0.8)	-	-
German benchmarking participant meeting sample participation requirements									
North Rhine-Westphalia	80 (0.9) ▲	-	-	44 (1.2) ▽	-	-	30 (1.0) ▼	-	-
German benchmarking participant not meeting sample participation requirements									
Schleswig-Holstein	77 (1.3)	-	-	42 (1.8)	-	-	32 (1.5)	-	-

Notes:
Statistically significant changes ($p < 0.05$) are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

Table 5.24b Students' perceptions of global threats from poverty, unemployment, and overpopulation

Country	Percentages of students viewing this to a large extent as a threat to the world's future:								
	Poverty			Unemployment			Overpopulation		
	2022	2016	Difference	2022	2016	Difference	2022	2016	Difference
Bulgaria	56 (1.1) △	59 (1.3)	-3 (1.7)	57 (1.1) ▲	53 (1.2)	**3** (1.6)	44 (1.1)	38 (1.3)	**7** (1.7)
Chinese Taipei	55 (0.9) △	52 (0.9)	**3** (1.3)	50 (1.0) △	40 (0.9)	**10** (1.3)	49 (1.0) △	39 (0.9)	**10** (1.3)
Colombia	58 (1.2) △	66 (0.9)	**-8** (1.5)	55 (1.0) ▲	55 (0.8)	0 (1.3)	54 (1.2) △	47 (1.0)	**7** (1.5)
Croatia[1]	58 (1.0) △	65 (1.0)	**-7** (1.4)	49 (1.0) △	57 (1.0)	**-7** (1.4)	32 (1.0) ▼	29 (1.0)	**3** (1.4)
Cyprus	61 (0.8) △	-	-	52 (0.8) △	-	-	44 (0.7)	-	-
Estonia	44 (1.3) ▽	41 (1.3)	**4** (1.8)	50 (1.2) △	36 (1.1)	**15** (1.6)	58 (1.2) ▲	39 (1.1)	**20** (1.6)
France	59 (1.0) △	-	-	33 (0.8) ▼	-	-	58 (1.0) ▲	-	-
Italy	58 (1.0) △	57 (1.0)	2 (1.4)	39 (1.0) ▽	45 (1.0)	**-6** (1.4)	34 (1.1) ▼	31 (1.0)	**3** (1.5)
Latvia[1]	52 (1.0)	51 (1.4)	1 (1.7)	49 (1.2) △	44 (1.1)	**5** (1.6)	46 (1.2)	40 (1.2)	**6** (1.7)
Lithuania	61 (1.0) △	63 (1.1)	-2 (1.5)	45 (1.2)	41 (1.2)	**4** (1.7)	46 (1.1)	37 (1.2)	**9** (1.6)
Malta	55 (1.2)	59 (0.8)	**-4** (1.4)	39 (1.4) ▽	34 (0.8)	**5** (1.6)	51 (1.8) △	43 (0.9)	**8** (2.0)
Netherlands†	34 (1.1) ▼	36 (1.2)	-2 (1.6)	30 (1.3) ▼	27 (1.1)	**3** (1.7)	45 (1.6)	37 (1.1)	**7** (2.0)
Norway (9)[1]	53 (0.8)	49 (0.6)	**4** (1.0)	34 (0.7) ▽	28 (0.7)	**6** (1.0)	44 (1.0)	37 (0.9)	**7** (1.4)
Poland	32 (0.9) ▼	-	-	35 (0.9) ▽	-	-	44 (0.9)	-	-
Romania	58 (2.4) △	-	-	39 (1.8) ▽	-	-	48 (1.6)	-	-
Serbia	51 (1.1)	-	-	43 (1.0)	-	-	33 (1.0) ▼	-	-
Slovak Republic	51 (0.8) ▽	-	-	44 (1.1)	-	-	45 (1.1)	-	-
Slovenia	55 (0.9) △	65 (1.0)	**-10** (1.3)	44 (1.0)	55 (1.1)	**-11** (1.5)	45 (1.0)	44 (0.9)	1 (1.4)
Spain	56 (1.0) △	-	-	47 (1.0) △	-	-	35 (1.1) ▽	-	-
Sweden[1]	45 (1.1) ▽	43 (1.2)	2 (1.6)	36 (1.0) ▽	27 (1.1)	**8** (1.4)	45 (1.2)	41 (1.1)	**4** (1.6)
ICCS 2022 average	53 (0.3)	-	-	44 (0.2)	-	-	45 (0.3)	-	-
ICCS 2016/2022 average	53 (0.3)	54 (0.3)	**-2** (0.4)	45 (0.3)	42 (0.3)	**3** (0.4)	46 (0.3)	39 (0.3)	**7** (0.4)
Countries not meeting sample participation requirements									
Brazil	67 (1.0)	-	-	68 (1.0)	-	-	50 (0.9)	-	-
Denmark	37 (1.0)	-	-	28 (0.9)	-	-	46 (1.3)	-	-
German benchmarking participant meeting sample participation requirements									
North Rhine-Westphalia	41 (1.4) ▼	-	-	25 (1.0) ▼	-	-	33 (1.2) ▼	-	-
German benchmarking participant not meeting sample participation requirements									
Schleswig-Holstein	38 (1.6)	-	-	29 (1.2)	-	-	39 (1.7)	-	-

Notes:
Statistically significant changes ($p < 0.05$) are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

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School and Classroom Contexts for Civic and Citizenship Education

6

Chapter Highlights

Students were actively involved in school life.

- In most countries high percentages of students were enrolled at schools where principals reported high levels of student participation in elections of classroom representatives. However, there were more considerable differences across countries with regard to the extent of reported student participation in school-wide elections, probably reflecting differences in school regulations across education systems. (Table 6.1)
- There were differences across countries in the extent to which students were studying at schools where principals reported that they were encouraged to contribute or be involved in decisions and planning processes at school. (Table 6.2)

Schools and teachers paid attention to school and classroom climates.

- On average, Grade 8 students were positive about classroom climates that are open for discussions of political or social issues in their classrooms and there were few changes since ICCS 2016. (Table 6.4)
- Similar to results from previous cycles, students had positive perceptions of their relations with teachers. (Table 6.5)

Schools and teachers provided activities to accommodate diversity and foster inclusion.

- High percentages of schools organized optional and remedial courses for Grade 8 students on topics related to diversity, while courses on gender issues were observed less frequently. (Table 6.6)
- In most ICCS 2022 countries, teachers adopted a variety of teaching strategies for responding to diversity in their classrooms; such as classroom discussions, group work, and encouraging students to explore different perspectives and points of view. (Table 6.7)
- On average, more than 80% of the surveyed teachers reported that cultural and ethnic differences among students were important resources for their teaching. (Table 6.8)

Students had many opportunities to learn about civic and citizenship inside the schools and in the local communities.

- Schools developed initiatives in collaboration with external groups and organizations to provide students with opportunities to participate in civic-related activities. (Tables 6.10 and 6.11)
- Students' opportunities to learn about civic topics varied across countries. On average, more than half of the surveyed students reported that they had opportunities to learn about topics such as environmental protection, evaluating the veracity of online civic information, and citizens' rights and the protection of these rights. (Table 6.12)

(continued)

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Schools developed activities related to environmental sustainability and other issues of global relevance.

- ICCS 2022 data reveal that most schools developed initiatives related to environmental sustainability, such as differential waste collection and reduction, waste recycling, and energy saving. (Table 6.15)
- Teachers reported that high percentages of Grade 8 students participated in activities intended to develop an awareness of different cultures and global issues such as climate change, world poverty, and child labor. (Table 6.17)

6.1 Introduction

The International Civic and Citizenship Education Study (ICCS) 2022 assessment framework (Schulz et al., 2023) identified several contexts that may influence students' learning outcomes in the field of civic and citizenship education: the context of the wider community (including the educational system), the context of schools and classrooms, the home and peer context, and the context of the individual students.

In this chapter we explore school and classroom contexts based on data from the school, teacher, and student questionnaires.

This chapter addresses the first part of Research Question 5: *How is schooling in participating countries organized with regard to civic and citizenship education [and what is its association with students' learning outcomes]?* In describing school and classroom contexts, it focuses on the following specific research questions:

(a) *To what extent do schools in participating countries have participatory processes in place that facilitate civic engagement?*
(b) *To what extent do schools and communities interact to foster students' civic engagement and learning?*
(c) *To what extent do schools offer programs or activities related to civic learning and experiences?*

Other aspects related to this research question (approaches to civic and citizenship education; schools' autonomy in delivering civic and citizenship education; teachers' preparedness and training experiences; and schools' and teachers' perceptions of the role of civic and citizenship education across participating countries) are explored in Chap. 2. Teachers' perceptions of the importance of different forms of citizenship behaviors are reported in Chap. 5 together with students' perceptions of those citizenship behaviors.

The COVID-19 pandemic may have influenced the school and classroom contexts for civic and citizenship education. The consequences of the pandemic sometimes included school closures and remote learning provisions. These consequences affected a large proportion of the student population across the world, to varying extents (Meinck et al., 2022; United Nations, 2020), and it is possible that civic activities in schools might have been curtailed during the COVID-19 pandemic depending on how much these affected education in each national context.

All scales presented in this chapter (and the two previous chapters) are described in item maps contained in Appendix A.4 of this report. The maps map scale scores to expected item responses under the ICCS scaling model, which is also set out in Appendix A.4. Greater detail on the scaling and equating procedures for questionnaire items will be provided in the ICCS 2022 technical report (Schulz et al., forthcoming).

As already mentioned in relation to civic engagement in Chaps. 4 and 5, readers should be aware that item responses may be affected by differences across the diversity of language and cultural national contexts and that variations of scale scores across countries may be partly due to differences related to cultural or linguistic contexts. Furthermore, slight variations in some of the measured student perceptions of school or classroom contexts might also be associated with differences in the ICCS 2022 assessment mode on either paper or computer (see Chap. 4 for more details).

6.2 Conceptual Background and Prior Research

International Association for the Evaluation of Educational Achievement (IEA) studies in the field of civic and citizenship education recognize that students' learning outcomes in the field of civic and citizenship education are influenced by their experience in the communities in which they live. The IEA Civic Education Study (CIVED) stressed the impact of different

"agents of socialization" on developing citizenship (Torney-Purta et al., 2001) and ICCS broadened the conceptual framework for that study by including further aspects of citizenship. The ICCS 2022 assessment framework emphasized the importance of informal learning for the development of students' civic related attitudes, values, skills, and knowledge, as well as their non-formal learning outside formal educational settings (Schulz et al., 2023).[1]

As in previous ICCS cycles, ICCS 2022 considered students' learning outcomes in the field of civic and citizenship education as the result of not only teaching and learning processes, but also of their experiences at school (Schulz et al., 2023). Several questions included in the student, school, and teacher questionnaires are about aspects of the school environment that may influence students' non-formal civic learning. In line with the results of several other studies, the assumption behind this is that the quality of students' experience at school is particularly important in relation to the non-cognitive aspects of students' learning in this field (Council of Europe, 2018; European Commission/EACEA [European Education and Culture Executive Agency]/Eurydice, 2017; Scheerens, 2009, 2011). Several studies also stressed the importance of informal learning at school for students' self-efficacy (Council of Europe, 2018) and for their civic engagement (Scheerens, 2009), as well as the importance of the quality of social and interpersonal relationships within the school (Bäckman & Trafford, 2007; Huddleston, 2007) and in the classroom (Cárdenas, 2017; Hahn, 2016).

As discussed in the overview of the background of this study (Chap. 1), several approaches to civic and citizenship education aim at creating a school environment that promotes students' participation and their non-formal civic learning through their experience at school. This perspective is usually referred to as the "whole school approach" to civic and citizenship education, which aims to integrate democratic values into teaching and learning practices. Three main aspects characterize this approach: teaching and learning, school governance and participation in decision-making processes, and cooperation with the local community (Council of Europe, 2018). A whole school approach requires the active involvement of all stakeholders: school staff, teachers, students, and parents, as well as members of the local community.

In schools characterized as "democratic learning environments," students have the opportunity to experience relations and behaviors consistent with the principles of a democratic society, based on openness, mutual respect, and respect for diversity. Within these contexts students may practice a democratic lifestyle, exercise their own autonomy, and develop a sense of self-efficacy (Mosher et al., 1994; Pasek et al., 2008; Schulz et al., 2023).

6.3 Participatory Processes and Social Interactions at School

6.3.1 Participation at School Level

Participation in decision-making processes and in school governance allows students to develop their trust in democratic and participative processes (Council of Europe, 2018). The ICCS 2022 assessment framework identified different forms of students' participation, at both a school and a classroom level. Questions included in the school and teacher questionnaires provided information on students' contribution to shaping different aspects of school life, such as the design of school educational plans, the definition of school rules and regulations, and the planning of classroom activities (Schulz et al., 2023). Research findings suggest that students' participation in civic-related activities at school may influence their future civic engagement and can help them to develop a sense of agency to influence matters in the community (see, for example, Pasek et al., 2008).

ICCS 2022 also gathered insights into the ways schools provided for students to contribute to aspects of the school environment, including their participation in school and classroom elections. Results from ICCS 2016 showed substantial differences among countries in students' participation in these elections (Schulz et al., 2018). In this study cycle, school principals were further requested to report on students' participation in class representatives and in school elections (for example, for student council/parliament). The question included in the ICCS 2022 school questionnaire was retained unchanged from ICCS 2016 and had been used in both CIVED and ICCS 2009. In the current study, principals were asked to indicate how many of the target-grade students participated in these elections ("all or nearly all," "most of them," "some of them," or "none or hardly any").[2]

[1] "Non-formal learning" refers to any planned program of education designed to improve a range of skills and competences, outside the formal educational setting. "Informal learning" refers to the lifelong process whereby every individual acquires attitudes, values, skills, and knowledge from the educational influences and resources in their own environment and from daily experience (family, peer group, neighbors, encounters, library, mass media, work, play, etc.) (Council of Europe, 2010).

[2] The question also included a "not applicable" option as an additional answer category to account for differences in school regulations across the ICCS 2022 participating countries.

In almost all participating countries high percentages of target-grade students were enrolled at schools where principals reported that all, nearly all, or most students participated in the elections of class representatives (Table 6.1). In 15 countries we observed percentages higher than 80%, while in 12 countries percentages were higher than 90%. In only two countries (Italy and the Netherlands), we recorded percentages lower than 50%.

Results for principals' reports on students' participation in elections for school parliaments or councils showed a somewhat greater variation across countries. In 12 countries, we recorded percentages of students at high-participation schools below 80%. These differences in reported student participation in the two different types of elections are likely due to different school regulations across education systems (see Chap. 2). There was little change for reported student participation in both types of elections from ICCS 2016 to 2022. Statistically significant[3] differences between 2022 and 2016 were found for only a few countries (Bulgaria, Chinese Taipei, Estonia, and Latvia for reported electoral participation for class representatives; Bulgaria, Chinese Taipei, and the Netherlands for reported electoral participation for school parliaments/councils).

Results from the principals' reports about student participation in school or class elections were quite consistent with those obtained from students when responding to questions about their participation in voting for class representatives or school parliament/council. High percentages of students in almost all participating countries reported their participation in these elections, with an ICCS 2022 average of 78%. However, in some countries, such as Bulgaria, Estonia, Italy, Latvia, and the Netherlands, much lower percentages were recorded (see Chap. 4, Table 4.11).

Principals were asked to report on the extent to which students were involved in activities such as designing school educational plans, defining school rules and regulations, contributing to decisions related to teaching content and to planning classroom activities, and participating in self-evaluation processes. The results are reported as percentages of students enrolled at schools where principals reported different types of involvement to a large or moderate extent. We observed the highest percentages for students' involvement in planning of classroom activities (70%), their participation in self-evaluation processes (67%), and for their contribution to the definition of school rules and regulations (66%) (Table 6.2). Lower percentages were found for students' involvement in the definition of school educational plans (44%) and of teaching contents (52%). It is interesting to note that there were quite high percentages for students' involvement in school self-evaluation processes for almost all countries, but that there were also a few notable exceptions with much lower percentages that could be due to differences in regulations across education systems. Further, we observed some variation across countries regarding all types of student involvement. Chinese Taipei, France, and Malta showed results significantly below the ICCS 2022 average in all forms of involvement. Latvia and Lithuania had percentages above the ICCS 2022 average in all forms of involvement.

A question included in the ICCS 2022 school questionnaire asked the principals about students' opportunities to participate in decision-making processes at school. More specifically, principals were asked to report whether students "can make suggestions for school improvement in class discussions"; "can participate in school assemblies"; "can submit written suggestions online or on paper"; "can attend individual and/or group meeting with the school principal"; and "can attend individual and/or group meeting with teachers."

According to principals' reports, high percentages of students were enrolled at schools where they are provided with these opportunities in almost all participating countries. We recorded percentages of students at such schools ranging from 98% for providing suggestions in class discussions to 79% for participation in school assemblies (Table 6.3). We observed the lowest percentage for students' participation in school assemblies.

6.3.2 School and Classroom Climate

Since 1971, IEA studies on civic and citizenship education have measured the classroom climate among students (Torney et al., 1975). Results have shown a positive association with students' civic learning outcomes, such as civic knowledge and students' expectations to vote as an adult (Schulz, 2004; Torney-Purta et al., 2001). Results of analyses conducted in ICCS 2009 and 2016 on students' perceptions of the openness of their classroom climate for discussion, confirmed the association of this construct with students' civic knowledge (Schulz et al., 2010, 2018). This association between an open classroom climate for discussion and civic learning outcomes has been one of the most stable findings across the IEA studies on civic and citizenship education. Several other studies have also confirmed this association based on data from other surveys (Knowles et al., 2018; Lin, 2014) and smaller-scale studies (Barber et al., 2021).

[3]When presenting tests of statistical significance for differences or coefficients in this chapter, we annotate results that were statistically significant at $p < 0.05$.

Table 6.1 Percentages of students at schools where principals reported students' participation in school elections

Country	National percentages of students at schools where principals reported that all, nearly all, or most of the students...									
	Elect their class representatives					Vote in school parliament/council elections				
	2022			2016	Difference	2022			2016	Difference
Bulgaria	91	(2.6)	△	68 (3.8)	**23** (4.6)	64	(4.1)		50 (4.1)	**14** (5.8)
Chinese Taipei	84	(2.9)		92 (2.4)	**-8** (3.7)	59	(4.1)	▼	45 (4.2)	**14** (5.9)
Colombia	100	(0.0)	▲	99 (1.0)	1 (1.0)	100	(0.0)	▲	99 (0.9)	1 (0.9)
Croatia[1]	100	(0.0)	▲	100 (0.0)	0 (0.0)	95	(1.9)	▲	98 (1.1)	-3 (2.2)
Cyprus	99	(0.0)	▲	-	-	46	(0.3)	▼	-	-
Estonia	58	(6.1)	▼	76 (4.9)	**-17** (7.8)	77	(4.9)		79 (4.4)	-2 (6.6)
France	100	(0.0)	▲	-	-	66	(4.6)		-	-
Italy	24	(3.7)	▼	22 (3.5)	3 (5.1)	3	(1.4)	▼	1 (0.7)	2 (1.6)
Latvia[1]	76	(3.1)	▽	88 (3.1)	**-11** (4.4)	67	(4.4)		73 (5.0)	-6 (6.7)
Lithuania	94	(2.1)	△	93 (2.1)	1 (2.9)	83	(3.1)	▲	79 (3.1)	4 (4.4)
Malta	74	(10.2)		85 (0.3)	-10 (10.2)	63	(11.2)		80 (0.3)	-16 (11.2)
Netherlands†	35	(5.5)	▼	46 (4.4)	-10 (7.0)	16	(4.2)	▼	34 (5.2)	**-17** (6.7)
Norway (9)[1]	96	(2.1)	▲	99 (0.8)	-3 (2.2)	92	(2.7)	▲	95 (2.0)	-3 (3.3)
Poland	100	(0.0)	▲	-	-	98	(1.0)	▲	-	-
Romania	95	(2.2)	▲	-	-	74	(5.3)		-	-
Serbia	99	(0.8)	▲	-	-	97	(1.5)	▲	-	-
Slovak Republic	85	(2.9)		-	-	70	(3.6)		-	-
Slovenia	96	(1.5)	▲	99 (0.8)	-3 (1.7)	84	(2.8)	▲	81 (3.7)	3 (4.6)
Spain	99	(0.8)	▲	-	-	83	(2.9)	▲	-	-
Sweden[1]	88	(3.6)		92 (2.4)	-3 (4.3)	73	(4.4)		78 (3.6)	-5 (5.7)
ICCS 2022 average	85	(0.8)		-	-	71	(0.9)		-	-
ICCS 2016/2022 average	78	(1.2)		81 (0.8)	-3 (1.4)	67	(1.3)		69 (0.9)	-1 (1.6)
Countries not meeting sample participation requirements										
Brazil	80	(3.5)		-	-	46	(4.6)		-	-
Denmark	93	(2.5)		-	-	92	(2.6)		-	-
German benchmarking participant meeting sample participation requirements										
North Rhine-Westphalia	100	(0.0)	▲	-	-	85	(2.9)	▼	-	-
German benchmarking participant not meeting sample participation requirements										
Schleswig-Holstein	100	(0.0)		-	-	99	(1.2)		-	-

Notes:
Statistically signficant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold.**
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling paticipation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population..
- No comparable data available.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

Table 6.2 Percentages of students at schools where principals reported students' involvement at school

Country	National percentages of students at schools where principals reported that to a large or to a moderate extent…									
	Students are involved in designing school educational plans		Students are involved in the definition of school rules and regulations		Students are encouraged to contribute to decisions related to teaching content		Students are encouraged to contribute to classroom activities planning		Students are involved in school self-evaluation processes	
Bulgaria	46	(4.2)	57	(4.4) ▽	55	(4.3)	92	(2.6) ▲	67	(3.9)
Chinese Taipei	24	(3.1) ▼	47	(3.8) ▼	40	(3.7) ▼	60	(4.1) ▽	27	(3.6) ▼
Colombia	48	(4.9)	84	(3.6) ▲	50	(4.7)	71	(4.6)	80	(3.4) ▲
Croatia[1]	55	(3.8) ▲	66	(3.9)	48	(4.0)	82	(3.0) ▲	75	(3.5) △
Cyprus	68	(0.2) ▲	67	(0.3)	55	(0.3) △	71	(0.2)	51	(0.3) ▼
Estonia	56	(4.5) ▲	77	(4.3) ▲	67	(5.6) ▲	61	(4.7) ▽	70	(5.1)
France	26	(3.9) ▼	28	(3.7) ▼	17	(3.0) ▼	23	(3.9) ▼	32	(4.1) ▼
Italy	58	(4.7) ▲	57	(4.6) ▽	46	(4.7)	55	(5.1) ▼	55	(4.4) ▼
Latvia[1]	61	(3.7) ▲	74	(3.8) △	71	(3.8) ▲	100	(0.0) ▲	86	(3.2) ▲
Lithuania	68	(4.0) ▲	92	(2.6) ▲	76	(4.2) ▲	80	(3.4) △	89	(3.0) ▲
Malta	25	(6.7) ▼	30	(9.4) ▼	15	(7.3) ▼	51	(11.9)	49	(12.3)
Netherlands†	41	(4.5)	63	(5.9)	46	(5.0)	34	(4.5) ▼	80	(5.3) ▲
Norway (9)[1]	41	(5.1)	80	(3.8) ▲	83	(3.2) ▲	87	(3.4) ▲	82	(3.6) ▲
Poland	32	(3.8) ▼	77	(3.4) ▲	42	(3.9) ▼	77	(3.0) △	71	(3.6)
Romania	70	(5.8) ▲	87	(3.1) ▲	65	(6.5) ▲	69	(8.1)	74	(4.1)
Serbia	41	(4.4)	77	(3.8) ▲	54	(4.6)	78	(3.8) △	83	(3.4) ▲
Slovak Republic	22	(3.3) ▼	55	(4.0) ▼	41	(3.7) ▼	81	(2.7) ▲	65	(3.8)
Slovenia	31	(3.7) ▼	70	(3.5)	54	(3.7)	84	(3.2) ▲	59	(3.3) ▽
Spain	32	(4.1) ▼	47	(4.1) ▼	47	(4.0)	64	(4.1)	56	(4.6) ▼
Sweden[1]	32	(5.1) ▼	90	(2.5) ▲	69	(4.7) ▲	81	(3.5) ▲	92	(2.5) ▲
ICCS 2022 average	44	(1.0)	66	(0.9)	52	(1.0)	70	(1.0)	67	(1.0)
Countries not meeting sample participation requirements										
Brazil	72	(4.0)	80	(3.7)	70	(4.2)	69	(4.2)	80	(3.8)
Denmark	38	(4.9)	70	(4.8)	74	(4.6)	90	(3.1)	66	(4.5)
German benchmarking participant meeting sample participation requirements										
North Rhine-Westphalia	63	(4.1) ▲	74	(3.8)	54	(4.4)	71	(4.4)	64	(4.5)
German benchmarking participant not meeting sample participation requirements										
Schleswig-Holstein	55	(6.7)	73	(5.5)	67	(5.8)	71	(5.2)	65	(5.9)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling paticipation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population..

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

Table 6.3 Percentages of students at schools where principals reported students' contribution in decision-making at school

Country	National percentages of students at schools where principals reported that...														
	Students can make suggestions for school improvement in class discussions			Students can participate in school assemblies			Students can submit written suggestions online or on paper			Students can attend individual and/or group meetings with the school principal			Students can attend individual and/or group meetings with teachers		
Bulgaria	96	(1.6)		96	(1.6)	▲	94	(2.1)		99	(0.8)	△	99	(1.0)	△
Chinese Taipei	90	(2.5)	▽	86	(3.0)	△	87	(2.9)		89	(2.5)	▽	85	(3.2)	▽
Colombia	97	(1.1)		97	(1.4)	▲	97	(1.4)	△	98	(1.4)	△	98	(1.3)	△
Croatia[1]	99	(0.7)		100	(0.0)	▲	95	(1.9)		96	(1.7)		97	(1.5)	
Cyprus	99	(0.1)	△	96	(0.2)	▲	88	(0.3)	▽	98	(0.3)	△	100	(0.0)	△
Estonia	100	(0.0)	△	99	(1.3)	▲	96	(1.9)	△	98	(1.3)	△	100	(0.3)	△
France	97	(1.6)		83	(3.6)		87	(3.4)		78	(3.7)	▼	77	(3.9)	▼
Italy	97	(1.4)		20	(3.2)	▼	71	(4.7)	▼	72	(4.8)	▼	75	(3.9)	▼
Latvia[1]	99	(0.6)	△	68	(4.1)	▼	99	(0.7)	△	99	(0.9)	△	98	(1.2)	△
Lithuania	99	(0.8)		93	(2.3)	▲	98	(1.6)	△	99	(0.7)	△	99	(0.7)	△
Malta	100	(0.0)	△	84	(10.0)		90	(8.2)		100	(0.0)	△	100	(0.0)	△
Netherlands†	90	(3.7)	▽	71	(5.3)		85	(3.5)	▽	90	(3.5)		94	(2.7)	
Norway (9)[1]	99	(1.2)		89	(3.3)	△	89	(3.1)		83	(3.6)	▼	93	(2.6)	
Poland	100	(0.0)	△	96	(1.3)	▲	96	(1.6)	△	99	(0.8)	△	99	(0.6)	△
Romania	99	(0.9)		35	(6.7)	▼	96	(1.3)	△	98	(1.2)	△	99	(1.0)	△
Serbia	100	(0.0)	△	100	(0.0)	▲	96	(1.8)	△	99	(1.0)	△	97	(1.7)	
Slovak Republic	99	(0.7)		33	(3.8)	▼	97	(1.6)	△	99	(0.6)	△	99	(0.9)	△
Slovenia	99	(0.6)	△	100	(0.0)	▲	91	(2.3)		97	(1.4)		96	(1.5)	
Spain	97	(1.5)		85	(3.1)		96	(1.5)	△	89	(2.7)		91	(2.5)	
Sweden[1]	100	(0.0)	△	45	(4.9)	▼	94	(2.0)		98	(1.2)	△	96	(1.6)	
ICCS 2022 average	98	(0.3)		79	(0.9)		92	(0.7)		94	(0.5)		95	(0.4)	
Countries not meeting sample participation requirements															
Brazil	98	(1.2)		94	(1.7)		98	(1.1)		96	(1.6)		97	(1.5)	
Denmark	99	(1.0)		58	(4.4)		95	(2.2)		90	(2.8)		97	(1.7)	
German benchmarking participant meeting sample participation requirements															
North Rhine-Westphalia	98	(1.2)		89	(2.8)	△	96	(1.8)		81	(3.2)	▼	88	(2.6)	▽
German benchmarking participant not meeting sample participation requirements															
Schleswig-Holstein	91	(3.7)		95	(2.9)		96	(2.5)		78	(5.4)		85	(5.0)	

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling paticipation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population..

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

School climate refers to "impressions, beliefs, and expectations held by members of the school community about their school as a learning environment, their associated behavior, and the symbols and institutions that represent the patterned expressions of the behavior" (Homana et al., 2006, p. 3). In general, an open school climate includes several dimensions, such as strong interpersonal relationships, a sense of safety, a feeling of connectedness, and reliable support for learning (Barber et al., 2021). School climate can be seen as a synonym for the "ethos" of a school (Campbell, 2006) or for the school "culture" (Scheerens & Bosker, 1997). Other authors characterize school climate as encompassing four aspects: (1) academic climate, (2) interpersonal relationships within the school and with parents, (3) physical and emotional safety, and (4) organizational effectiveness (Powell et al., 2015; Wang & Degol, 2015).

A distinction is needed between school and classroom climate. Definitions of classroom climate mainly focus on such factors as cooperation in teaching and learning activities, fairness of grading, and social and emotional support. At different levels (school and classroom levels) students may experience different environments even within the same individual school (Berkowitz et al., 2017).

In relation to civic and citizenship education, an open classroom climate may be considered as "a climate in which learners are able to raise issues that are of concern to them, are allowed to discuss controversial issues, are encouraged to express their own opinions and to listen to one another and are allowed to explore a variety of different perspectives" (Council of Europe, 2018, p. 117). An open classroom climate fosters discussions allowing students to face different and sometimes conflicting opinions (Campbell, 2019). A democratic classroom climate focuses mainly on the implementation of democratic and liberal values in the classroom (Ehman, 1980; Hahn, 1999), and it helps to ensure that the classroom is a safe space "where students participate in the setting and respecting of ground rules, such as listening to and respecting others" (Council of Europe, 2018, p. 92).

Together with the quality of relations within the school (among students and between students and teachers) an open school and classroom climate may influence students' achievement (Bear et al., 2014; Hooghe & Quintelier, 2013), as well as both their engagement in school and their future engagement (Campbell, 2007, 2008; Mager & Nowak, 2012; Quin, 2017; Reichert et al., 2018). Studies using data from ICCS 2009 showed an association between students' positive perceptions of their relations with teachers and their perceptions of the openness of classroom climate for discussion (Maurissen et al., 2018). Results from ICCS 2016 showed an association between positive perceptions of student–teacher relations with students' civic knowledge (Schulz et al., 2018).

As in the IEA CIVED 1999 survey (Torney-Purta et al., 2001), ICCS 2009 and 2016 included a set of items that asked students how open they thought their classroom was for discussion during their lessons related to political or social issues. The ICCS 2022 student questionnaire used the same question format to ask respondents to rate the frequency ("never," "rarely," "sometimes," or "often") of the following situations in any "regular lesson" in which they discussed political and social issues: "Teachers encourage students 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"; and "teachers present several sides of the issues when explaining them in class."

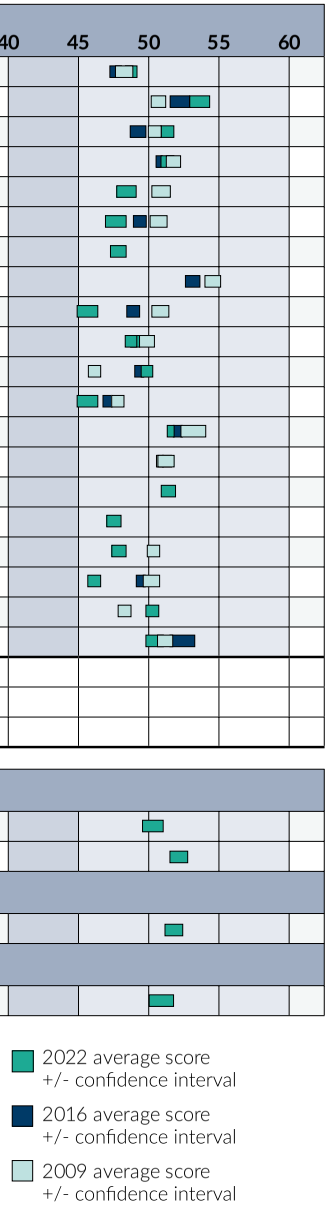
We used the six items to derive a IRT (item response theory) based scale measuring student perceptions of openness in classroom discussions with an average reliability of 0.80 (Cronbach's alpha) across participating countries. Higher scores on the scale indicate stronger perceptions of a more open classroom climate. To allow a review of changes since the previous cycles, we equated the 2022 IRT scale so that the scores are reported on the same metric as the 2009 and 2016 scales, with a mean value of 50, with a standard deviation of 10, for equally weighted countries in the ICCS cycle where the scale was first introduced.

We recorded national scale scores above the ICCS 2022 average in Chinese Taipei, Colombia, Croatia, Italy, Norway, Poland, Romania, Spain, and Sweden (Table 6.4). Among these countries, Italy and Chinese Taipei recorded the highest score, being three or more scale points above the ICCS 2022 average. As in previous chapters we have highlighted score differences between countries of three or more scale points in reporting tables, that reflect a large effect according to the criteria developed by Kraft (2020). When we compared the results from the three ICCS cycles, we found only very small, albeit statistically significant, differences between the average scores of the countries participating in both ICCS 2022 and 2016, there were no statistically significant differences between the ICCS 2022 average scores of the countries participating in both ICCS 2022 and 2009.

There were significantly higher scores between ICCS 2022 and 2016 for Chinese Taipei, Colombia, and Italy, and significantly lower scores in Estonia, Latvia, the Netherlands, Slovenia, and Sweden. When comparing results between ICCS 2022 and 2009, we recorded significantly higher scores in Chinese Taipei, Colombia, Malta, and Spain, while scores were significantly lower among students from Cyprus, Estonia, Latvia, the Slovak Republic, and Slovenia.

Table 6.4 National average scale scores indicating students' perceptions of openness in classroom discussions

Country	2022	2016	2009	Difference (2022–2016)	Difference (2022–2009)
Bulgaria	48 (0.4) ▽	48 (0.3)	48 (0.4)	0.4 (0.5)	0.6 (0.7)
Chinese Taipei	54 (0.4) ▲	52 (0.3)	50 (0.3)	**1.6** (0.5)	**3.3** (0.6)
Colombia	51 (0.3) △	49 (0.3)	50 (0.2)	**2.0** (0.5)	**1.1** (0.6)
Croatia[1]	51 (0.3) △	51 (0.3)	-	-0.1 (0.5)	-
Cyprus	48 (0.3) ▽	-	51 (0.3)	-	**-2.2** (0.6)
Estonia	48 (0.4) ▽	49 (0.3)	50 (0.3)	**-1.7** (0.5)	**-2.6** (0.6)
France	48 (0.3) ▽	-	-	-	-
Italy	55 (0.3) ▲	53 (0.3)	54 (0.3)	**1.4** (0.4)	0.4 (0.6)
Latvia[1]	46 (0.4) ▼	49 (0.2)	51 (0.3)	**-3.2** (0.5)	**-4.8** (0.6)
Lithuania	49 (0.3)	49 (0.3)	50 (0.3)	-0.3 (0.5)	-0.6 (0.6)
Malta	50 (0.3)	49 (0.2)	46 (0.2)	0.3 (0.4)	**3.9** (0.6)
Netherlands†	46 (0.4) ▼	47 (0.3)	-	**-1.7** (0.5)	-
Norway (9)[1]	52 (0.3) △	52 (0.3)	53 (0.5)	-0.4 (0.4)	-0.9 (0.7)
Poland	51 (0.3) △	-	51 (0.3)	-	0.3 (0.6)
Romania	51 (0.3) △	-	-	-	-
Serbia	48 (0.3) ▽	-	-	-	-
Slovak Republic	48 (0.3) ▽	-	50 (0.3)	-	**-2.1** (0.6)
Slovenia	46 (0.3) ▼	50 (0.3)	50 (0.3)	**-3.5** (0.5)	**-3.7** (0.6)
Spain	50 (0.3) △	-	48 (0.2)	-	**2.3** (0.5)
Sweden[1]	50 (0.3) △	52 (0.4)	51 (0.3)	-2.0 (0.6)	-0.5 (0.6)
ICCS 2022 average	50 (0.1)	-	-	-	-
ICCS 2016/2022 average	50 (0.1)	50 (0.1)	-	**-0.5** (0.1)	-
ICCS 2009/2022 average	50 (0.1)	-	50 (0.1)	-	**-0.4** (0.2)
Countries not meeting sample participation requirements					
Brazil	50 (0.4)	-	-	-	-
Denmark	52 (0.3)	-	-	-	-
German benchmarking participant meeting sample participation requirements					
North Rhine-Westphalia	52 (0.3) △	-	-	-	-
German benchmarking participant not meeting sample participation requirements					
Schleswig-Holstein	51 (0.5)	-	-	-	-



Notes:
Statistically significant changes ($p < 0.05$) since 2009 and 2016 are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 3 score points below ICCS 2022 average

On average across items, students with a score in the range with this color have more than 50% probablity to indicate:

	Never or rarely
	Sometimes or often

2022 average score +/- confidence interval
2016 average score +/- confidence interval
2009 average score +/- confidence interval

For measuring students' perceptions of student–teacher relations at school, the ICCS 2022 student questionnaire included a five-item question. The items included in this question are the same used both in ICCS 2016 and 2009: "Most of my teachers treat me fairly" (ICCS 2022 average of students reporting this occurred sometimes or often: 82%); "students get along well with most teachers" (69%); "most teachers are interested in students' wellbeing" (76%); "most of my teachers listen to what I have to say" (78%); and "if I need extra help, I receive it from my teachers" (83%).

These five items formed an IRT-based scale with an average reliability of 0.84 (Cronbach's alpha) across countries. The higher values on the scale reflect more positive perceptions of student–teacher relationships. We equated the 2022 scale to the metric used in the previous cycles, so that the value of 50 reflected the average score of equally weighted countries in ICCS 2009. This process allowed us to identify changes in scale scores for the countries that participated in more than one cycle.

We recorded national scale scores above the international ICCS 2022 average in Bulgaria, Chinese Taipei, Colombia, Croatia, Italy, Malta, Norway, and Sweden (Table 6.5). Among these countries, Chinese Taipei recorded the highest score. We observed national scale scores below the international ICCS 2022 average in Cyprus, Estonia, Latvia, Lithuania, the Netherlands, Poland, the Slovak Republic, and Slovenia.

When we compared the results across the three ICCS cycles, we found a small but statistically significant difference between the average scores for countries participating in both ICCS 2022 and 2016 and no significant differences between the average scores for countries participating in both ICCS 2022 and 2009. We observed significantly lower scores between ICCS 2022 and 2016 for Bulgaria and Slovenia. We found significantly higher scores between ICCS 2022 and 2009, in Chinese Taipei, Cyprus, and Norway.

6.3.3 Approaches to Diversity at School

Diversity is one of the focus areas included in ICCS 2022 (Schulz et al., 2023). Its inclusion is related to the awareness that an increasing diversity of student populations is a wide-spread trend and that the economic, demographic, and technological changes occurring at international level have made international migration so extensive that it affects most countries (OECD [Organisation for Economic Co-operation and Development], 2012; Sandoval-Hernández et al., 2018; UNESCO [United Nations Educational, Scientific and Cultural Organization], 2015, 2018; United Nations, Department of Economic and Social Affairs, Population Division, 2017). Increasing diversity in the cultural, social, and economic compositions of student populations may affect school education, both posing obstacles (Malak-Minkiewicz & Torney-Purta, 2021) and providing opportunities for building multicultural and more inclusive schools (Banks, 2020; Banks & McGee Banks, 2009; Griffith et al., 2016). Several studies have argued that diversity can promote students' knowledge and respect for other cultures thus improving and enriching school education (Council of Europe, 2018; Schachner, 2014, 2019; Schachner et al., 2016).

Research has shown the importance of principals' and teachers' roles in fostering inclusive schools for all students (Billot et al., 2007; Leeman, 2003; Taylor & Kaur Sidhu, 2012), as well as the importance of teacher education in preparing teachers to work in classrooms with culturally diverse students (Álvarez Valdivia & Montoto, 2018; DeJaeghere & Zhang, 2008; Lin & Bates, 2014; Mushi, 2004; Tarozzi, 2014).

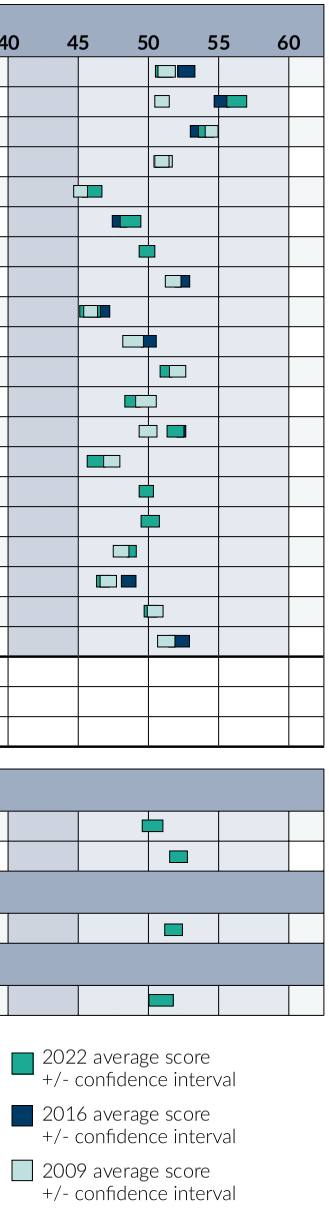
Results on students' attitudes towards different kinds of diversity were explored in Chap. 5 of this report. In this chapter, we explore how schools and teachers address diversity within schools and classrooms, and report on teachers' opinions about the influence of the presence of students from diverse ethnic, cultural, social, and economic backgrounds on their teaching.

The ICCS school questionnaire included a question asking principals about the activities their schools had implemented to deal with different types of diversity. Three of the six items included in the question were related to teacher training activities: "Teacher training activities on teaching students from diverse backgrounds"; "teacher training activities on the promotion of students' tolerance towards diversity"; and "teacher training activities related to students with special educational needs." The other three items asked principals about courses available to students: "Remedial programs for students from disadvantaged social and/or economic backgrounds"; "optional country of test language courses for students from diverse language backgrounds"; and "optional courses for students on gender issues."

When reviewing national percentages of students at schools where principals reported each of these types of activities, on average across countries, among teacher training activities we observed the highest for those related to students with special educational needs (83%), followed by training activities on teaching students from diverse backgrounds and on the promotion of students' tolerance towards diversity (both 58%) (Table 6.6). We found variation across countries, with Chinese Taipei, Cyprus, Lithuania, and Sweden recording percentages above the ICCS 2022 averages regarding all three types of teacher training activities.

Table 6.5 National average scale scores indicating students' perceptions of student–teacher relations at school

Country	2022	2016	2009	Difference (2022–2016)	Difference (2022–2009)
Bulgaria	51 (0.3) △	53 (0.3)	51 (0.3)	**-1.9** (0.4)	0.2 (0.6)
Chinese Taipei	56 (0.3) ▲	56 (0.3)	51 (0.3)	0.5 (0.5)	5.7 (0.6)
Colombia	54 (0.3) ▲	54 (0.3)	54 (0.3)	0.4 (0.4)	0.1 (0.6)
Croatia[1]	51 (0.3) △	51 (0.4)	-	0.2 (0.5)	-
Cyprus	46 (0.3) ▼	-	45 (0.3)	-	**1.4** (0.6)
Estonia	49 (0.3) ▽	49 (0.3)	48 (0.3)	-0.1 (0.5)	1.1 (0.6)
France	50 (0.3)	-	-	-	-
Italy	52 (0.3) △	53 (0.3)	51 (0.3)	-0.8 (0.4)	0.5 (0.6)
Latvia[1]	46 (0.3) ▼	46 (0.3)	45 (0.3)	-0.8 (0.4)	0.3 (0.6)
Lithuania	49 (0.4) ▽	50 (0.3)	50 (0.3)	-1.1 (0.5)	-0.9 (0.7)
Malta	52 (0.3) △	52 (0.2)	52 (0.3)	-0.7 (0.4)	-0.2 (0.6)
Netherlands†	49 (0.4) ▽	50 (0.3)	-	-0.6 (0.5)	-
Norway (9)[1]	52 (0.3) △	52 (0.3)	50 (0.4)	-0.5 (0.4)	**2.3** (0.7)
Poland	46 (0.3) ▼	-	47 (0.3)	-	-0.6 (0.6)
Romania	50 (0.3)	-	-	-	-
Serbia	50 (0.3)	-	-	-	-
Slovak Republic	49 (0.3) ▽	-	48 (0.3)	-	1.0 (0.6)
Slovenia	47 (0.3) ▼	48 (0.3)	47 (0.3)	**-1.5** (0.4)	0.1 (0.6)
Spain	50 (0.2)	-	50 (0.3)	-	0.1 (0.6)
Sweden[1]	51 (0.3) △	53 (0.4)	51 (0.3)	-1.1 (0.6)	0.4 (0.7)
ICCS 2022 average	50 (0.1)	-	-	-	-
ICCS 2016/2022 average	51 (0.1)	51 (0.1)	-	**-0.6** (0.1)	-
ICCS 2009/2022 average	50 (0.1)	-	49 (0.1)	-	**0.8** (0.2)
Countries not meeting sample participation requirements					
Brazil	52 (0.3)	-	-	-	-
Denmark	53 (0.4)	-	-	-	-
German benchmarking participant meeting sample participation requirements					
North Rhine-Westphalia	50 (0.3)	-	-	-	-
German benchmarking participant not meeting sample participation requirements					
Schleswig-Holstein	51 (0.4)	-	-	-	-



Notes:
Statistically significant changes ($p < 0.05$) since 2009 and 2016 are displayed in **bold**.
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.
- No comparable data available.

National ICCS 2022 results are:
▲ More than 3 score points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 3 score points below ICCS 2022 average

On average across items, students with a score in the range with this color have more than 50% probablity to indicate:

	Disagreement with positive statements
	Agreement with positive statements

Table 6.6 Percentages of students at schools where principals reported activities related to diversity

Country	National percentages of students at school where principals reported the existence of:											
	Teacher training activities on teaching students from diverse backgrounds (e.g., methods to differentiate instruction and to value students' diversity, inclusion of multicultural components)		Teacher training activities on the promotion of students' tolerance towards diversity (e.g., dealing with negative feelings towards different cultural, language, or ethnic group, towards gender, economic and social differences)		Teacher training activities related to students with special educational needs		Remedial programs for students from disadvantaged social and/or economic backgrounds		Optional country of test language courses for students from diverse language backgrounds		Optional courses for students on gender issues (e.g., gender equity, gender stereotypes and gender diversity)	
Bulgaria	37	(4.5) ▼	53	(4.8)	54	(4.0) ▼	40	(4.2) ▼	18	(3.4) ▼	15	(3.3) ▼
Chinese Taipei	86	(3.1) ▲	87	(2.4) ▲	99	(0.7) ▲	97	(1.8) ▲	69	(3.8) ▲	86	(2.8) ▲
Colombia	67	(4.8)	72	(4.9) ▲	85	(4.4)	54	(4.8)	10	(2.2) ▼	47	(5.2) ▲
Croatia[1]	59	(4.3)	63	(4.4)	91	(2.5) △	69	(3.9) ▲	68	(3.4) ▲	13	(3.2) ▼
Cyprus	90	(0.1) ▲	81	(0.2) ▲	84	(0.2) △	67	(0.2) ▲	60	(0.3) ▲	35	(0.3) △
Estonia	65	(5.2)	54	(5.3)	91	(2.1) △	29	(5.6) ▼	48	(5.5)	15	(4.6) ▼
France	38	(4.8) ▼	26	(4.6) ▼	76	(4.3)	39	(4.8) ▼	50	(4.6)	27	(4.0)
Italy	49	(4.9) ▽	39	(5.0) ▼	95	(2.0) ▲	72	(3.4) ▲	48	(4.7)	16	(3.1) ▼
Latvia[1]	75	(3.8) ▲	74	(3.4) ▲	72	(4.1) ▼	37	(4.1) ▼	67	(3.4) ▲	17	(3.2) ▽
Lithuania	85	(3.0) ▲	72	(4.3) ▲	98	(1.4) ▲	61	(3.9) △	40	(3.8)	21	(3.4)
Malta	53	(9.8)	44	(11.4)	76	(9.8)	35	(9.6)	39	(14.0)	33	(8.4)
Netherlands†	33	(5.3) ▼	31	(5.4) ▼	83	(3.8)	40	(5.4) ▼	69	(5.8) ▲	42	(5.7) ▲
Norway (9)[1]	56	(4.5)	69	(4.7) ▲	86	(3.5)	23	(4.0) ▼	15	(3.2) ▼	11	(3.1) ▼
Poland	65	(3.5)	61	(3.1)	98	(1.0) ▲	64	(3.3) ▲	74	(3.1) ▲	31	(3.0)
Romania	46	(8.0)	52	(8.0)	58	(8.9) ▼	78	(8.9) ▲	14	(4.8) ▼	13	(4.6) ▼
Serbia	51	(4.7)	59	(4.6)	79	(3.9)	37	(4.4) ▼	11	(2.8) ▼	22	(3.3)
Slovak Republic	45	(3.4) ▼	41	(4.3) ▼	76	(3.3)	76	(3.4) ▲	45	(3.9)	11	(2.8) ▼
Slovenia	62	(3.8)	65	(3.6)	92	(1.7) △	48	(3.8)	58	(4.0) ▲	9	(2.2) ▼
Spain	32	(4.3) ▼	45	(4.0) ▼	67	(3.9) ▼	47	(4.6)	24	(3.8) ▼	47	(4.2) ▲
Sweden[1]	71	(4.2) ▲	69	(4.2) ▲	91	(2.7) △	11	(2.4) ▼	46	(5.4)	7	(2.1) ▼
ICCS 2022 average	58	(1.1)	58	(1.1)	83	(0.9)	51	(1.1)	44	(1.1)	26	(0.9)
Countries not meeting sample participation requirements												
Brazil	74	(4.3)	72	(4.0)	79	(3.7)	77	(4.0)	6	(2.2)	23	(4.2)
Denmark	33	(4.5)	17	(3.9)	90	(3.1)	63	(5.2)	60	(4.8)	16	(3.2)
German benchmarking participant meeting sample participation requirements												
North Rhine-Westphalia	75	(4.0) ▲	41	(4.4) ▼	61	(3.9) ▼	64	(4.0) ▲	91	(2.2) ▲	33	(4.2)
German benchmarking participant not meeting sample participation requirements												
Schleswig-Holstein	60	(5.3)	35	(6.4)	58	(6.0)	52	(5.8)	86	(4.8)	20	(5.7)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling paticipation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

On average across countries, we also observed the following percentages of students at schools where principals reported courses available to students: remedial programs for students from disadvantaged social and/or economic backgrounds (51%); country of test language courses for students from diverse language backgrounds (44%); and courses on gender issues (26%). Across countries, percentages were above the ICCS 2022 averages in Chinese Taipei, Croatia, Cyprus, Italy, Lithuania, Poland, Romania, and the Slovak Republic for programs for disadvantaged students; in Chinese Taipei, Croatia, Cyprus, Latvia, the Netherlands, Poland, and Slovenia for courses on country of test language and in Chinese Taipei, Colombia, Cyprus, the Netherlands, and Spain for courses on gender issues.

Teachers were asked about the activities they had developed for addressing differences among students during their lessons. Six items were included in the question and teachers were asked to indicate the extent to which they had undertaken the following activities: "I encourage students to understand different points of view in class discussions"; "I ask students to explore different cultural perspectives"; "I encourage students from different backgrounds to work together (e.g., in group works, peer learning activities)"; "I involve students in discussions on gender issues (e.g., gender equity, gender stereotypes, and gender diversity)"; and "I ask students to explore different social and economic perspectives."

Across countries we recorded the highest percentages of teachers reporting they had to a large or moderate extent undertaken activities during lessons for encouraging students to understand different point of views (94%), for encouraging students from different backgrounds to work together (87%), and for the discussion of cultural differences (77%) (Table 6.7).

We recorded relatively lower average percentages for students' involvement in discussions on gender issues (68%). This result seems to be consistent with findings reported based on data from the school questionnaire (see Table 6.6). There was also more variation across countries for this type of activity.

Two questions included in the teacher questionnaire asked teachers about their opinions on the influence that cultural and ethnic differences or social and economic differences may have on teaching and learning in the classroom. The items included in the two questions are similar and they are related to both positive and negative opinions about the implications of these differences. Teachers were asked to indicate their level of agreement with each statement (we reported the percentages who agreed or strongly agreed). Respondents were asked to indicate whether cultural and ethnic differences/social and economic differences among students (a) "are an important resource for teaching"; (b) "make it difficult to deal with controversial issues during classes"; (c) "make teaching activities more difficult"; (d) "strengthen students' sense of empathy"; (e) "promote students' civic-mindedness"; and (f) "make it difficult to have a good classroom climate." Some of these items reflect positive views about the influence of these differences whereas items b, c, and f indicate negative ones.

In almost all participating countries, high percentages of teachers reported to have a positive opinion of the influence that cultural and ethnic differences may have on teaching and learning processes in the classroom (Table 6.8). For most teachers across countries, cultural and ethnic differences were an important resource for teaching (85%), strengthened students' sense of empathy (82%), and promoted their civic mindedness (86%). Lower percentages of teachers, across countries, reported that these differences may be an obstacle for dealing with controversial issues (33%), make teaching activities more difficult (25%), and may have a negative impact on classroom climate (16%). These results are consistent with results presented in Chap. 2 (Table 2.15) regarding teachers' preparedness for teaching topics related to cultural and ethnic differences, where they indicated high levels of preparedness for teaching on topics such as emigration and immigration, and diversity and inclusiveness. Despite these generally positive perceptions (see ICCS 2022 averages), we also observed differences across countries. These findings suggest that teachers from some national contexts find it more difficult to deal with cultural and ethnic differences. Differences across countries may also be related to the differences in proportions of students from diverse backgrounds in their classrooms.

High percentages of teachers in participating countries believe that social and economic differences are a resource for teaching (59%), strengthen students' sense of empathy (71%), and promote their civic mindedness (74%) (Table 6.9). In almost all participating countries majorities among teachers did not consider social and economic differences, or ethnic and cultural differences, to be an obstacle for their teaching activities. Only minorities among teachers across countries believed that social and economic differences made it difficult to deal with controversial issues (28%), made teaching activities more difficult (25%), and made it difficult to have a good classroom climate (19%).

The comparison between teachers' views on the influence of cultural and ethnic differences and those on the influence of the social and economic ones suggests that, despite a generally positive opinion about the impact they may have on teaching, dealing with social and economic differences may be more demanding for teachers. Students from a disadvantaged socioeconomic background may have more learning difficulties and a lower level of academic achievement, and this may require more preparation by teaching staff to adopt more differentiated teaching methods. Further, it may also lead to a higher workload for teachers.

Table 6.7 Teachers' reports on activities dealing with diversity

Country	National percentages of teachers who reported conducting the following activities to a large or a moderate extent in their classrooms:					
	I discuss cultural differences with students	I encourage students to understand different points of view in class discussions	I ask students to explore different cultural perspectives	I encourage students from different backgrounds to work together (e.g., in group works, peer learning activities)	I involve students in discussions on gender issues (e.g., gender equity, gender stereotypes and gender diversity)	I ask students to explore different social and economic perspectives
Bulgaria†	78 (1.6)	95 (0.6) △	75 (1.3)	89 (1.0) △	68 (1.6)	60 (1.4) ▽
Chinese Taipei	72 (1.1) ▽	91 (0.7) ▽	72 (1.2)	78 (0.9) ▽	73 (1.4) △	64 (1.3)
Croatia	82 (1.0) △	96 (0.5) △	72 (1.2)	83 (1.1) ▽	67 (1.3)	65 (1.1)
Italy	87 (0.9) △	98 (0.3) △	89 (0.8) ▲	92 (0.7) △	81 (1.0) ▲	74 (1.1) △
Lithuania	78 (1.1)	93 (0.6)	70 (1.3) ▽	91 (0.7) △	56 (1.4) ▼	59 (1.2) ▽
Malta	62 (3.7) ▼	89 (1.7) ▽	60 (3.8) ▼	76 (3.5) ▼	54 (5.2) ▼	54 (4.2) ▼
Norway (9)	85 (1.1) △	97 (0.6) △	79 (1.2) △	85 (1.3)	83 (1.1) ▲	73 (1.7) △
Poland	81 (0.9) △	92 (0.6) ▽	77 (1.1) △	86 (1.0)	65 (1.2) ▽	74 (1.2) △
Romania	88 (0.9) ▲	98 (0.4) △	89 (0.9) ▲	97 (0.4) ▲	76 (1.7) △	82 (1.1) ▲
Serbia	83 (1.4) △	98 (0.4) △	77 (2.0) △	93 (0.8) △	79 (1.6) ▲	65 (2.5)
Slovak Republic	74 (1.3) ▽	93 (0.7)	69 (1.2) ▽	90 (0.9) △	58 (1.5) ▽	60 (1.6) ▽
Slovenia	64 (1.0) ▼	87 (0.8) ▽	49 (1.2) ▼	80 (0.9) ▽	52 (1.2) ▼	37 (1.2) ▼
Spain	69 (1.5) ▽	91 (0.8) ▽	76 (1.3) △	85 (1.2)	72 (1.2) △	73 (1.2) △
ICCS 2022 average	77 (0.4)	94 (0.2)	73 (0.4)	87 (0.4)	68 (0.5)	65 (0.5)
Countries not meeting sample participation requirements						
Brazil	94 (0.9)	95 (1.1)	89 (1.2)	92 (0.9)	77 (2.1)	87 (1.3)
Colombia	90 (1.6)	97 (0.8)	85 (2.3)	93 (1.5)	85 (2.1)	81 (3.2)
Cyprus	69 (1.7)	91 (1.3)	65 (2.0)	79 (1.3)	63 (1.7)	55 (1.9)
Denmark	86 (2.4)	96 (1.4)	78 (2.7)	81 (3.4)	87 (2.2)	77 (2.9)
Estonia	69 (1.0)	90 (0.9)	72 (1.0)	86 (1.2)	49 (1.1)	46 (1.3)
France	48 (2.1)	80 (1.4)	58 (1.7)	63 (1.5)	44 (1.5)	43 (1.7)
Latvia	72 (1.1)	85 (1.0)	57 (1.5)	82 (1.0)	45 (1.6)	42 (1.3)
Netherlands	65 (1.6)	80 (1.6)	52 (2.0)	64 (2.0)	51 (2.3)	46 (2.5)
Sweden	71 (1.3)	91 (1.0)	63 (1.3)	78 (1.6)	76 (1.5)	57 (1.6)
German benchmarking participant not meeting sample participation requirements						
North Rhine-Westphalia	68 (1.0)	86 (0.8)	67 (1.1)	81 (1.0)	55 (1.0)	68 (1.1)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling paticipation rates only after replacement schools were included.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

Table 6.8 Teachers' opinions on the influence of cultural and ethnic differences on teaching activities

Country	National percentages of teachers who strongly agreed or agreed with the following statements:					
	Cultural and ethnic differences among students are an important resource for teaching	Cultural and ethnic differences among students make it difficult to deal with controversial issues during classes	Cultural and ethnic differences among students make teaching activities more difficult	Cultural and ethnic differences among students strengthen students' sense of empathy	Cultural and ethnic differences among students promote students' civic-mindedness	Cultural and ethnic differences among students make it difficult to have a good classroom climate
Bulgaria†	69 (1.9) ▼	37 (1.8) △	29 (1.7) △	70 (1.7) ▼	69 (1.7) ▼	26 (2.0) ▲
Chinese Taipei	94 (0.5) △	37 (1.2) △	26 (1.1)	83 (1.1)	85 (0.8)	24 (1.0) △
Croatia	89 (1.1) △	33 (1.3)	20 (1.1) ▽	84 (1.1)	88 (0.9) △	15 (1.3)
Italy	99 (0.3) ▲	17 (1.0) ▼	16 (1.1) ▽	89 (0.8) △	95 (0.5) △	6 (0.5) ▽
Lithuania	84 (1.1)	37 (1.4) △	30 (1.0) △	73 (1.5) ▽	86 (0.9)	19 (1.1) △
Malta	90 (2.4) △	39 (3.7)	20 (2.5) ▽	89 (2.3) △	91 (2.4) △	16 (1.9)
Norway (9)	97 (0.5) ▲	37 (1.6) △	32 (1.6) △	91 (1.1) △	92 (1.0) △	11 (0.9) ▽
Poland	91 (0.8) △	38 (1.2) △	48 (1.9) ▲	88 (0.6) △	94 (0.6) △	14 (1.1)
Romania	64 (2.1) ▼	25 (1.5) ▽	14 (1.3) ▼	67 (1.7) ▼	72 (2.0) ▼	16 (1.5)
Serbia	83 (1.6)	21 (1.0) ▼	11 (0.8) ▼	76 (1.7) ▽	87 (1.2)	8 (0.8) ▽
Slovak Republic	68 (1.6) ▼	47 (2.2) ▲	33 (1.2) △	86 (1.1) △	89 (0.9) △	18 (1.2)
Slovenia	88 (0.7) △	34 (1.2)	27 (1.0) △	82 (0.8)	73 (1.2) ▼	23 (1.0) △
Spain	94 (0.7) △	23 (1.3) ▽	13 (0.9) ▼	92 (0.9) △	93 (0.8) △	10 (0.8) ▽
ICCS 2022 average	85 (0.4)	33 (0.5)	25 (0.4)	82 (0.4)	86 (0.4)	16 (0.3)
Countries not meeting sample participation requirements						
Brazil	93 (0.8)	31 (1.8)	23 (2.1)	93 (0.8)	92 (0.9)	21 (1.8)
Colombia	93 (1.3)	22 (3.4)	15 (2.7)	91 (2.1)	92 (1.8)	23 (3.0)
Cyprus	86 (1.4)	47 (1.7)	36 (1.5)	91 (1.0)	92 (1.0)	22 (1.4)
Denmark	92 (2.1)	14 (2.6)	8 (1.9)	92 (1.5)	96 (1.4)	8 (2.8)
Estonia	84 (1.1)	48 (1.5)	41 (1.4)	81 (1.0)	90 (0.7)	26 (1.2)
France	88 (1.0)	40 (1.8)	19 (1.6)	69 (1.9)	70 (1.9)	11 (1.1)
Latvia	82 (1.1)	38 (1.6)	21 (1.2)	74 (1.5)	80 (1.0)	19 (1.2)
Netherlands	77 (1.2)	34 (1.2)	19 (1.6)	76 (2.2)	64 (2.5)	21 (3.0)
Sweden	94 (0.6)	34 (1.6)	24 (1.2)	88 (1.3)	93 (0.8)	15 (1.2)
German benchmarking participant not meeting sample participation requirements						
North Rhine-Westphalia	88 (0.6)	27 (1.2)	18 (0.9)	84 (0.8)	75 (0.9)	16 (0.9)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Met guidelines for sampling paticipation rates only after replacement schools were included.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

Table 6.9 Teachers' perceptions of the influence of socioeconomic differences on teaching activities

Country	National percentages of teachers who strongly agreed or agreed with the following statements:					
	Social and economic differences among students are an important resource for teaching	Social and economic differences among students make it difficult to deal with controversial issues during classes	Social and economic differences among students make teaching activities more difficult	Social and economic differences among students strengthen students' sense of empathy	Social and economic differences among students promote students' civic-mindedness	Social and economic differences among students make it difficult to have a good classroom climate
Bulgaria†	42 (1.6) ▼	33 (1.5) △	23 (1.6)	62 (1.6) ▽	64 (1.3) ▽	27 (1.5) △
Chinese Taipei	77 (1.1) ▲	38 (1.3) ▲	33 (1.3) △	68 (1.1) ▽	75 (0.9)	27 (1.2) △
Croatia	67 (1.3) △	25 (1.2)	19 (1.4) ▽	74 (1.1) △	81 (1.2) △	18 (1.7)
Italy	68 (1.4) △	13 (0.7) ▼	12 (0.8) ▼	71 (1.1)	81 (1.0) △	8 (0.7) ▼
Lithuania	64 (1.3) △	36 (1.3) △	35 (1.3) ▲	60 (1.4) ▼	65 (1.5) ▽	23 (1.3) △
Malta	74 (2.5) ▲	34 (2.3) △	29 (3.0)	81 (2.2) ▲	84 (1.5) ▲	22 (2.0) △
Norway (9)	60 (1.4)	28 (2.0)	31 (1.9) △	67 (1.8) ▽	77 (1.5) △	14 (1.3) ▽
Poland	59 (1.5)	29 (1.1)	37 (1.5) ▲	73 (1.4)	80 (1.1) △	21 (1.0)
Romania	41 (1.8) ▼	18 (1.4) ▽	13 (1.2) ▼	64 (1.6) ▽	67 (1.9) ▽	15 (1.2) ▽
Serbia	40 (3.6) ▼	17 (1.8) ▼	13 (1.3) ▼	70 (1.7)	74 (1.3)	10 (1.1) ▽
Slovak Republic	52 (1.3) ▽	41 (1.6) ▲	34 (1.6) △	79 (1.6) △	82 (1.5) △	25 (1.7) △
Slovenia	58 (1.1)	27 (1.1)	23 (0.9)	69 (1.0)	45 (1.1) ▼	24 (1.0) △
Spain	65 (1.2) △	19 (1.1) ▽	18 (1.0) ▽	81 (1.0) ▲	84 (0.9) △	11 (0.9) ▽
ICCS 2022 average	59 (0.5)	28 (0.4)	25 (0.4)	71 (0.4)	74 (0.4)	19 (0.4)
Countries not meeting sample participation requirements						
Brazil	65 (1.5)	27 (2.0)	28 (1.7)	80 (1.3)	78 (1.5)	21 (1.5)
Colombia	67 (2.5)	19 (2.6)	22 (3.2)	81 (1.7)	82 (1.7)	19 (2.7)
Cyprus	50 (1.8)	33 (1.8)	24 (1.4)	80 (1.6)	71 (1.6)	18 (1.3)
Denmark	71 (3.1)	8 (1.8)	6 (1.5)	84 (2.3)	88 (2.1)	5 (1.7)
Estonia	51 (1.5)	39 (1.7)	30 (1.3)	71 (1.3)	77 (1.3)	31 (1.3)
France	62 (1.7)	21 (1.6)	23 (1.5)	57 (2.1)	60 (1.7)	13 (1.1)
Latvia	49 (1.6)	34 (1.9)	24 (1.6)	62 (2.2)	54 (1.5)	27 (1.8)
Netherlands	59 (1.8)	17 (1.3)	14 (1.3)	70 (2.5)	49 (1.4)	16 (1.8)
Sweden	66 (1.3)	24 (1.3)	21 (1.2)	73 (1.2)	76 (1.6)	14 (1.2)
German benchmarking participant not meeting sample participation requirements						
North Rhine-Westphalia	49 (1.0)	22 (0.8)	29 (1.2)	65 (1.0)	57 (1.1)	19 (0.8)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Met guidelines for sampling paticipation rates only after replacement schools were included.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

6.4 Delivering Civic and Citizenship Education at School

6.4.1 Civic and Citizenship Education Activities in the Local Community

Barber et al. (2021) showed the importance of considering both students' within-school and out-of-school experiences and their membership in various communities (see also Torney-Purta et al., 2010). Several other studies showed that schools' interactions with their local communities may influence students' perceptions of their relationships with the wider community and enhance students' awareness of the different roles they may play in it (Annette, 2000, 2008; Potter, 2002; Torney-Purta & Barber, 2004). While results in Chap. 4 show that only relatively few students are involved, it has been argued that their participation in local community groups and organizations has the potential of supporting the development of knowledge and skills for civic involvement (Schulz et al., 2023).

ICCS 2009 and 2016 showed that, in almost all participating countries, according to school principals and teachers, surveyed students had opportunities to participate in civic-related activities in the local community conducted in cooperation with external groups and associations. ICCS 2009 and 2016 results were generally consistent across the school and teacher questionnaires (Schulz et al. 2010, 2018). Results from these two surveys also showed that the possibility of conducting these activities depended on the characteristics of the local communities where the schools were located, and they suggested that these characteristics may influence the quality of the interactions between schools and local communities (Schulz et al., 2010, 2016, 2018).

Cooperation with the local community is one of the important aspects of the whole school approach described earlier in this chapter. Through this cooperation, schools may address important community issues, combining the development of students' civic knowledge with an experience-based development of skills and attitudes (Council of Europe, 2018; OECD, 2023). The cooperation between schools and their local communities can be organized in different ways: through students' participation in civic-related activities and campaigns; through the development of partnerships with local organizations and institutions; and through the organization of students' visits to political, religious, and cultural institutions.

As in ICCS 2009 and 2016, the ICCS 2022 school and teacher questionnaires included a question on students' civic and citizenship education activities in the local community that were developed in cooperation with external groups and associations. The question included nine items (three of these items had been modified from ICCS 2016 and one new item, related to global issues, had been added) and respondents were asked to reference the current school year. The same question was included in both the school and teacher questionnaires (with a partly different stem and different response categories).

The nine items (included in both school and teacher questionnaires) were: "Activities related to environmental sustainability (e.g., [energy and water saving, recycling])"; "activities related to human rights"; "activities for underprivileged people or groups"; "cultural activities (e.g., theatre, music)"; "multicultural and intercultural activities within the local community (e.g., [promotion and celebration of cultural diversity, food street market])"; "activities to raise people's awareness of social issues, such as [poverty, gender equality, domestic violence against women, sexual violence against women, violence against children]"; "activities aimed at protecting cultural heritage in the [local community]"; "visits to political institutions (e.g., [parliament house, prime minister's/president's official residence])"; "sports events"; and "activities to raise people's awareness of global issues (e.g., climate change, world poverty, international conflicts, child labor)."[4]

Quite high percentages of students in the participating countries were attending schools where, according to their principals, they had opportunities to participate in at least some civic- and citizenship-related activities in the local community (Table 6.10). On average, we recorded the highest percentages for sports events (75%), cultural activities (75%), and activities related to environmental sustainability (68%).

On average, the lowest percentages were for visits to political institutions (17%), multicultural and intercultural activities within the community (36%), and activities aimed at protecting the cultural heritage within the local community (44%). There was, however, considerable variation across countries for almost all the activities.

On average, the highest percentages of teachers reporting they had carried out civic- and citizenship- related activities in the local communities with their target grade students were for activities related to environmental sustainability (61%), cultural activities (60%), and sports events (60%) (Table 6.11). The lowest percentages recorded were for visits to political institutions (11%), multicultural and intercultural activities within the community (35%), and activities aimed at protecting the cultural heritage (43%). Similar to the findings from the school questionnaire, there was substantial variation across countries in data based on teachers' reports.

[4]Expressions in square brackets ([…]) indicate expressions in the English source version of survey instruments that were adapted to national contexts in the translated versions.

Table 6.10 Percentages of students at schools where principals reported students' opportunity to participate in civic-related activities

Country	National percentages of students at schools where principals reported that all, nearly all or most of the students participated in the following civic-related activities in the community:									
	Activities related to environmental sustainability (e.g., energy and water saving, recycling)		Activities related to human rights		Activities for underprivileged people or groups		Cultural activities (e.g., theatre, music)		Multicultural and intercultural activities within the local community (e.g., promotion and celebration of cultural diversity, food street market)	
Bulgaria	67 (4.3)		48 (4.7)	▽	48 (4.5)		76 (3.1)		45 (4.5)	△
Chinese Taipei	84 (3.2)	▲	72 (3.7)	▲	58 (4.5)	▲	81 (3.4)		54 (4.5)	▲
Colombia	58 (4.7)	▼	55 (4.6)		32 (4.4)	▼	54 (5.5)	▼	33 (4.7)	
Croatia[1]	82 (3.4)	▲	64 (4.6)		51 (4.4)		84 (3.5)	△	39 (4.1)	
Cyprus	60 (0.3)	▽	41 (0.3)	▼	43 (0.3)	▽	49 (0.3)	▼	19 (0.3)	▼
Estonia	68 (5.4)		45 (6.2)	▼	21 (4.9)	▼	90 (3.2)	▲	43 (4.8)	
France	59 (4.9)	▽	50 (5.0)		40 (4.2)		78 (4.0)		17 (3.8)	▼
Italy	80 (3.9)	▲	69 (4.3)	▲	48 (4.0)		66 (3.9)	▽	24 (3.5)	▼
Latvia[1]	60 (3.9)	▽	50 (4.1)		38 (4.1)	▽	96 (1.6)	▲	50 (3.8)	▲
Lithuania	79 (3.4)	▲	59 (4.6)		51 (4.1)		90 (2.8)	▲	72 (4.0)	▲
Malta	57 (12.2)		37 (11.9)		26 (9.7)	▼	21 (9.9)	▼	4 (2.5)	▼
Netherlands†	36 (5.6)	▼	19 (4.4)	▼	36 (5.7)		84 (4.5)	△	15 (4.3)	▼
Norway (9)[1]	61 (5.1)		62 (4.4)		26 (4.3)	▼	81 (3.4)		20 (3.8)	▼
Poland	95 (1.5)	▲	83 (2.8)	▲	92 (2.3)	▲	87 (2.7)	▲	38 (3.7)	
Romania	66 (6.7)		71 (5.6)	▲	65 (5.9)	▲	63 (6.4)	▼	53 (7.5)	▲
Serbia	66 (3.8)		56 (4.0)		62 (3.4)	▲	72 (3.8)		41 (3.4)	
Slovak Republic	83 (3.2)	▲	67 (3.8)	△	42 (4.3)		82 (3.3)	△	43 (4.6)	
Slovenia	79 (3.5)	▲	68 (3.6)	▲	65 (3.7)	▲	85 (2.8)	▲	45 (3.6)	△
Spain	73 (4.1)		72 (4.0)	▲	61 (4.2)	▲	81 (3.3)		35 (4.4)	
Sweden[1]	51 (5.4)	▼	67 (4.5)	△	23 (5.0)	▼	78 (3.6)		23 (4.6)	▼
ICCS 2022 average	68 (1.1)		58 (1.1)		46 (1.1)		75 (0.9)		36 (0.9)	
Countries not meeting sample participation requirements										
Brazil	75 (3.6)		72 (4.4)		50 (4.4)		67 (4.1)		56 (4.7)	
Denmark	64 (4.9)		58 (4.4)		32 (4.5)		91 (3.0)		17 (3.6)	
German benchmarking participant meeting sample participation requirements										
North Rhine-Westphalia	47 (3.9)	▼	42 (3.9)	▼	42 (4.7)		55 (4.5)	▼	23 (4.0)	▼
German benchmarking participant not meeting sample participation requirements										
Schleswig-Holstein	55 (6.8)		36 (6.5)		38 (6.0)		54 (5.3)		15 (5.0)	

(continued)

Table 6.10 (continued)

Country	National percentages of students at schools where principals reported that all, nearly all or most of the students participated in the following civic-related activities in the community:																				
	Activities to raise people's awareness of social issues, such as poverty, gender equality, domestic violence against women, sexual violence against women, violence against children						Activities aimed at protecting the cultural and historical heritage within the local community						Visits to political institutions (e.g., parliament house, prime minister's/president's official residence)						Sports events						Activities to raise people's awareness of global issues (e.g., climate change, world poverty, international conflicts, child labor)					
Bulgaria	64	(3.8)					64	(4.5)	▲				11	(2.5)	▽				80	(3.7)					33	(3.8)	▼			
Chinese Taipei	71	(3.8)	▲				45	(4.1)					30	(3.6)	▲				92	(2.1)	▲				62	(4.1)				
Colombia	61	(5.1)					41	(4.6)					11	(2.7)	▽				76	(3.9)					57	(5.3)				
Croatia[1]	68	(3.8)	△				65	(4.1)	▲				11	(2.7)	▽				89	(3.0)	▲				69	(4.2)	▲			
Cyprus	50	(0.3)	▽				36	(0.3)	▽				11	(0.1)	▽				68	(0.3)	▽				55	(0.3)				
Estonia	60	(4.9)					61	(4.7)	▲				44	(5.1)	▲				97	(1.8)	▲				70	(4.1)	▲			
France	61	(4.7)					21	(4.3)	▼				6	(2.4)	▼				50	(4.5)	▼				49	(4.6)				
Italy	78	(3.3)	▲				59	(4.8)	▲				13	(2.7)					62	(4.2)	▼				78	(3.9)	▲			
Latvia[1]	36	(4.2)	▼				41	(4.1)					17	(3.1)					96	(1.4)	▲				58	(4.7)				
Lithuania	56	(4.4)					54	(4.3)	△				27	(4.1)	▲				83	(2.9)	△				56	(4.1)				
Malta	42	(13.6)					7	(4.4)	▼				4	(3.1)	▼				53	(9.9)	▼				34	(10.5)	▼			
Netherlands†	38	(5.6)	▼				13	(3.7)	▼				17	(4.7)					96	(2.3)	▲				46	(6.0)	▼			
Norway (9)[1]	59	(4.0)					34	(4.4)	▼				19	(3.5)					75	(3.5)					63	(4.7)				
Poland	74	(3.6)	▲				71	(3.1)	▲				9	(2.6)	▽				78	(3.4)					74	(3.3)	▲			
Romania	63	(6.5)					47	(7.2)					36	(8.2)	▲				64	(6.7)					63	(6.3)				
Serbia	54	(3.6)					42	(4.1)					5	(1.8)	▼				75	(3.7)					44	(4.3)	▼			
Slovak Republic	53	(4.4)					55	(4.7)	▲				19	(3.1)					82	(3.4)	△				66	(4.0)	△			
Slovenia	67	(3.6)	△				55	(3.6)	▲				7	(2.2)	▽				88	(2.5)	▲				55	(4.3)				
Spain	88	(3.0)	▲				53	(4.3)	△				22	(3.6)					64	(4.1)	▼				72	(4.3)	▲			
Sweden[1]	57	(4.5)					24	(4.0)	▼				16	(3.6)					42	(4.3)	▼				43	(5.0)	▼			
ICCS 2022 average	60	(1.1)					44	(1.0)					17	(0.8)					75	(0.9)					57	(1.1)				
Countries not meeting sample participation requirements																														
Brazil	78	(3.8)					61	(4.9)					12	(2.8)					88	(2.7)					73	(4.1)				
Denmark	55	(5.0)					15	(2.9)					56	(4.6)					90	(2.8)					61	(5.1)				
German benchmarking participant meeting sample participation requirements																														
North Rhine-Westphalia	38	(4.0)	▼				12	(3.2)	▼				16	(3.4)					60	(4.3)	▼				47	(4.8)	▼			
German benchmarking participant not meeting sample participation requirements																														
Schleswig-Holstein	34	(6.1)					12	(4.5)					22	(4.9)					83	(4.7)					47	(6.9)				

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling paticipation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

Table 6.11 Teachers' perceptions of student activities in the community

Country	National percentages of teachers who reported taking part with their target-grade classes in...														
	Activities related to environmental sustainability (e.g., energy and water saving, recycling)			Activities related to human rights			Activities for underprivileged people or groups			Cultural activities (e.g., theatre, music)			Multicultural and intercultural activities within the local community (e.g., promotion and celebration of cultural diversity, food street market)		
Bulgaria†	56	(2.0)	▽	40	(1.7)	▼	39	(2.3)	▽	54	(1.9)	▽	42	(2.1)	△
Chinese Taipei	65	(1.0)	△	44	(1.3)	▽	37	(1.2)	▽	51	(1.4)	▽	36	(1.5)	
Croatia	57	(3.1)		56	(1.7)	△	37	(1.3)	▽	54	(2.4)	▽	29	(2.3)	▽
Italy	64	(1.8)	△	73	(1.4)	▲	48	(1.6)		57	(1.6)		25	(1.8)	▽
Lithuania	72	(1.6)	▲	56	(1.8)	△	53	(1.8)	△	84	(1.2)	▲	76	(1.2)	▲
Malta	42	(3.0)	▼	25	(2.7)	▼	31	(2.1)	▼	32	(4.5)	▼	24	(4.2)	▼
Norway (9)	63	(2.0)		60	(1.8)	△	31	(1.8)	▼	77	(1.6)	▲	17	(1.6)	▼
Poland	66	(1.2)	△	55	(1.5)	△	76	(1.0)	▲	49	(1.5)	▼	30	(1.4)	▽
Romania	63	(2.1)		55	(1.9)	△	48	(1.6)	△	60	(2.1)		40	(2.2)	△
Serbia	56	(1.8)	▽	50	(1.6)		59	(2.7)	▲	51	(2.5)	▽	35	(1.6)	
Slovak Republic	63	(2.3)		54	(2.2)		35	(2.2)	▼	60	(2.3)		30	(1.8)	▽
Slovenia	64	(1.2)	△	49	(1.3)		51	(1.4)	△	81	(1.1)	▲	38	(1.2)	△
Spain	55	(1.8)	▽	47	(1.3)	▽	44	(1.5)		66	(1.6)	△	29	(1.6)	▽
ICCS 2022 average	61	(0.6)		51	(0.5)		45	(0.5)		60	(0.6)		35	(0.6)	
Countries not meeting sample participation requirements															
Brazil	66	(2.1)		70	(2.3)		49	(2.3)		76	(2.6)		62	(2.0)	
Colombia	68	(2.3)		65	(2.4)		40	(2.6)		68	(3.2)		55	(5.2)	
Cyprus	80	(1.2)		59	(1.8)		49	(1.6)		85	(1.3)		37	(2.0)	
Denmark	53	(4.2)		45	(3.6)		26	(4.4)		76	(4.8)		19	(3.2)	
Estonia	72	(1.3)		42	(1.5)		42	(1.7)		87	(1.2)		41	(1.7)	
France	35	(1.6)		37	(1.6)		26	(1.4)		57	(2.0)		12	(1.0)	
Latvia	54	(2.5)		44	(1.5)		31	(1.4)		70	(1.3)		41	(1.2)	
Netherlands	21	(2.8)		17	(1.6)		20	(2.6)		46	(2.1)		12	(1.8)	
Sweden	33	(2.0)		45	(1.7)		20	(1.2)		64	(2.1)		16	(1.4)	
German benchmarking participant not meeting sample participation requirements															
North Rhine-Westphalia	35	(1.8)		27	(1.6)		30	(1.2)		46	(1.7)		18	(1.2)	

(continued)

Table 6.11 (continued)

Country	National percentages of teachers who reported taking part with their target-grade classes in…														
	Activities to raise people's awareness of social issues, such as poverty, gender equality, domestic violence against women, sexual violence against women, violence against children			Activities aimed at protecting the cultural and historical heritage in the local community			Visits to political institutions (e.g., parliament house, prime minister's/president's official residence)			Sports events			Activities to raise people's awareness of global issues (e.g., climate change, world poverty, international conflicts, child labor)		
Bulgaria†	42	(1.8)	▼	47	(1.6)	△	7	(0.8)	▽	67	(1.7)	△	27	(1.4)	▼
Chinese Taipei	56	(1.3)	△	21	(1.4)	▼	8	(0.8)	▽	63	(1.0)	△	54	(1.1)	
Croatia	57	(1.4)	△	49	(2.2)	△	8	(0.8)	▽	59	(2.7)		63	(2.0)	△
Italy	68	(1.4)	▲	51	(2.0)	△	11	(1.0)		53	(1.8)	▽	59	(1.6)	△
Lithuania	58	(1.6)	△	67	(1.5)	▲	25	(1.3)	▲	81	(1.9)	▲	65	(1.6)	▲
Malta	39	(3.2)	▼	24	(3.1)	▼	10	(1.9)		47	(5.2)	▼	40	(4.1)	▼
Norway (9)	57	(1.7)	△	42	(1.8)		14	(1.5)		64	(2.2)		61	(2.0)	△
Poland	59	(1.3)	△	47	(1.2)	△	6	(0.6)	▽	44	(1.4)	▼	64	(1.1)	▲
Romania	57	(1.8)	△	47	(1.9)	△	17	(1.5)	△	52	(1.9)	▽	55	(1.6)	
Serbia	40	(1.2)	▼	43	(1.7)		6	(1.1)	▽	54	(2.0)	▽	50	(1.3)	▽
Slovak Republic	39	(2.4)	▼	41	(1.5)		7	(0.7)	▽	76	(1.8)	▲	58	(1.7)	
Slovenia	50	(1.2)	▽	48	(1.3)	△	13	(1.0)		79	(1.0)	▲	52	(1.3)	
Spain	64	(1.3)	▲	32	(1.6)	▼	15	(1.1)	△	49	(1.9)	▼	58	(1.6)	△
ICCS 2022 average	53	(0.5)		43	(0.5)		11	(0.3)		60	(0.6)		54	(0.5)	
Countries not meeting sample participation requirements															
Brazil	77	(1.9)		57	(2.6)		12	(1.3)		77	(2.2)		64	(1.9)	
Colombia	61	(3.0)		47	(4.1)		12	(2.2)		74	(3.5)		60	(3.1)	
Cyprus	59	(1.8)		48	(1.8)		17	(1.2)		89	(1.1)		63	(1.9)	
Denmark	46	(4.6)		18	(3.9)		34	(3.8)		69	(3.9)		55	(4.5)	
Estonia	49	(1.6)		69	(1.7)		31	(1.5)		91	(0.8)		60	(1.6)	
France	45	(2.1)		11	(1.4)		6	(0.9)		38	(2.1)		41	(1.6)	
Latvia	31	(1.4)		52	(1.8)		10	(0.9)		77	(1.6)		53	(2.1)	
Netherlands	25	(2.2)		9	(1.4)		5	(1.0)		42	(4.8)		32	(3.0)	
Sweden	47	(2.1)		19	(1.6)		7	(1.1)		35	(1.7)		38	(2.1)	
German benchmarking participant not meeting sample participation requirements															
North Rhine-Westphalia	35	(1.5)		16	(1.2)		17	(1.1)		64	(1.3)		46	(1.5)	

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Met guidelines for sampling paticipation rates only after replacement schools were included.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

6.4.2 Civic and Citizenship Education in Classrooms

In Chap. 2 of this report, we described the different approaches adopted by schools for the implementation of civic and citizenship education. As observed in ICCS 2016 and 2009, different approaches may coexist within individual schools. Chapter 2 also reported principals' and teachers' perceptions of the most important aims of civic and citizenship education, teachers' responses to questions about their level of preparedness for teaching civic and citizenship education, and teachers' pre- and in-service training experience. In this section of the current chapter, we examine the activities conducted in participating schools during civic and citizenship education lessons using student and teacher data. We also report on specific teaching methods reported to have been used during those lessons.

The question on civic topics taught in school included in the ICCS 2022 student questionnaire required students to indicate the extent ("to a large extent," "to a moderate extent," "to a small extent," or "not at all") to which they had learned about each of the following at their school: "How citizens can vote in local or national election"; "how laws are introduced and changed in [country of test]"; "how to protect the environment (e.g., through energy-saving or recycling)"; "how to contribute to solving problems in the [local community]"; "how citizen rights are protected in [country of test]"; and "political issues and events in other countries."

On average across ICCS 2022 countries, the highest percentages of students reporting that they learned about a topic to a moderate or large amount were for how to protect the environment (81%), how to check whether online information can be trusted (62%), and how citizen rights are protected in the country of test (58%) (Table 6.12). The lowest percentages were for how to become a candidate in a local election (28%), how to contribute to solving problems in the local community (52%), and how laws are introduced and changed in the country of test (53%). We observed considerable variation across countries for all topics, which may indicate curricular differences in the way these are incorporated in civic-related learning at schools.

The ICCS 2022 teacher questionnaire included a question on teacher perceptions of students' opportunities to learn about civic issues. The topics listed in this thirteen-items question were the same as those included in the two questions on teachers' preparedness and on their participation in training activities reported in Chap. 2: human rights; voting and elections; the global community and international organizations; the environment and environmental sustainability; emigration and immigration; equal opportunities for men and women; citizens' rights and responsibilities; the constitution and political systems; responsible internet use; critical and independent thinking; conflict resolution; global issues (such as world poverty, international conflicts, child labor, social justice); and diversity and inclusiveness. This question was included in the international option of the teacher questionnaire that was administered only to teachers of subjects considered by national research centers as related to civic and citizenship education.

On average across countries, the highest percentages were reported for responsible internet use (91%), human rights (88%), citizens' rights and responsibilities (88%), and the environment and environmental sustainability (87%) (Table 6.13). The lowest percentages were for voting and elections (70%), the global community and international organizations (70%), emigration and immigration (71%), and the constitution and political systems (74%). We observed considerable variation across countries for all items.

According to teachers' responses, high percentages of students in almost all participating countries had opportunities to learn about almost all the topics and skills listed in the question. When comparing teachers' answers to this question with those on their feelings of preparedness for teaching civic topics and issues and their participation in training activities (see Chap. 2), it appears that in teachers' perceptions, students' civic learning opportunities are not directly related to the training teachers had and only partially to their preparedness in the various topics. At the same time, teachers' perceptions are consistent with some of the students' responses regarding their civic learning (namely those related to the protection of the environment and to online information). It should be noted that protection of the environment is also one of the objectives of civic and citizenship education that teachers regarded as one of the most important (see Chap. 2, Table 2.11).

The variation across countries that we noted for almost all items of these two questions suggests that students' opportunities to learn may vary in relation to the importance attributed to specific topics and skills in national school curricula and the importance assigned to issues in the public debate (such as environmental issues and internet use).

The ICCS 2022 teacher questionnaire also asked teachers how often they used specific teaching activities during lessons. This question was part of the "international option" of the questionnaire that was completed only by teachers of civic-related subjects. It included 10 items: "Students work on projects that involve gathering information outside school (e.g., interviews in the neighborhood, small scale surveys)"; "students work in small groups on different topics/issues"; "students participate in role plays"; "students take notes during teacher's lectures"; "students discuss current issues"; "students research and/or

Table 6.12 Students' reports about civic learning at school

Country	National percentages of students who reported having learned the following to a moderate or large extent:									
	How citizens can vote in local or national elections		How laws are introduced and changed in country of test		How to protect the environment (e.g., through energy-saving or recycling)		How to contribute to solving problems in the local community		How citizen rights are protected in country of test	
Bulgaria	53 (1.2)		50 (1.2)	▽	81 (1.0)		52 (1.2)		53 (1.2)	▽
Chinese Taipei	88 (0.7)	▲	87 (0.7)	▲	88 (0.7)	△	74 (0.9)	▲	89 (0.7)	▲
Colombia	75 (0.9)	▲	60 (1.0)	△	88 (0.8)	△	73 (1.1)	▲	78 (1.0)	▲
Croatia[1]	53 (1.4)		42 (1.4)	▼	89 (0.8)	△	50 (1.5)		50 (1.6)	▽
Cyprus	40 (1.0)	▼	39 (1.0)	▼	81 (0.8)		44 (0.9)	▽	40 (0.8)	▼
Estonia	37 (1.7)	▼	41 (2.0)	▼	70 (1.1)	▼	49 (1.2)	▽	47 (1.6)	▼
France	47 (1.2)	▽	53 (1.2)		66 (1.2)	▼	33 (1.0)	▼	60 (1.1)	
Italy	61 (1.4)	△	61 (1.6)	△	91 (0.7)	▲	57 (1.0)	△	74 (1.1)	▲
Latvia[1]	32 (1.2)	▼	39 (1.2)	▼	76 (0.9)	▽	37 (1.2)	▼	39 (1.0)	▼
Lithuania	44 (1.2)	▼	45 (1.1)	▽	85 (0.7)	△	48 (1.3)	▽	46 (1.2)	▼
Malta	45 (2.1)	▽	44 (1.5)	▽	81 (1.7)		52 (1.7)		54 (1.4)	▽
Netherlands†	40 (1.4)	▼	32 (1.6)	▼	67 (1.5)	▼	29 (1.1)	▼	28 (1.4)	▼
Norway (9)[1]	75 (0.8)	▲	54 (1.0)		86 (0.7)	△	64 (0.9)	▲	66 (1.1)	△
Poland	35 (1.4)	▼	48 (1.2)	▽	79 (0.9)	▽	49 (1.0)	▽	60 (1.1)	
Romania	70 (1.5)	▲	62 (1.7)	△	85 (1.1)	△	57 (1.4)	△	69 (1.8)	▲
Serbia	43 (1.4)	▼	40 (1.5)	▼	83 (0.8)	△	47 (1.3)	▽	52 (1.4)	▽
Slovak Republic	68 (1.3)	▲	63 (1.4)	▲	84 (0.9)	△	57 (1.2)	△	69 (1.3)	▲
Slovenia	76 (0.9)	▲	74 (0.9)	▲	79 (0.8)	▽	66 (1.1)	▲	71 (1.0)	▲
Spain	38 (1.0)	▼	34 (1.0)	▼	81 (1.0)		44 (1.0)	▽	46 (1.0)	▼
Sweden[1]	66 (1.6)	▲	83 (1.5)	▲	83 (1.1)		55 (1.5)	△	69 (1.4)	▲
ICCS 2022 average	54 (0.3)		53 (0.3)		81 (0.2)		52 (0.3)		58 (0.3)	
Countries not meeting sample participation requirements										
Brazil	58 (0.9)		61 (0.9)		83 (0.8)		65 (0.8)		66 (0.9)	
Denmark	64 (1.6)		68 (1.4)		74 (1.1)		43 (0.9)		52 (1.3)	
German benchmarking participant meeting sample participation requirements										
North Rhine-Westphalia	69 (1.4)	▲	58 (1.7)	△	78 (1.0)	▽	43 (1.2)	▽	54 (1.4)	▽
German benchmarking participant not meeting sample participation requirements										
Schleswig-Holstein	54 (2.9)		43 (2.0)		74 (1.5)		38 (1.6)		44 (2.1)	

(continued)

Table 6.12 (continued)

Country	National percentages of students who reported having learned the following to a moderate or large extent:											
	Political issues and events in other countries			How the economy works			How to check whether online information can be trusted			How to become a candidate in a local election		
Bulgaria	41	(1.1)	▼	49	(1.3)	▽	66	(0.9)	△	30	(1.2)	
Chinese Taipei	70	(0.8)	▲	65	(0.9)	▲	88	(0.7)	▲	69	(0.8)	▲
Colombia	56	(1.0)	△	73	(1.0)	▲	59	(0.9)	▽	51	(1.3)	▲
Croatia[1]	43	(1.6)	▽	26	(1.3)	▼	66	(1.4)	△	20	(1.1)	▽
Cyprus	43	(1.0)	▽	42	(1.0)	▼	58	(1.1)	▽	27	(1.0)	
Estonia	48	(1.7)	▽	40	(1.7)	▼	60	(1.6)		18	(1.5)	▼
France	53	(1.1)		46	(1.2)	▽	53	(1.4)	▽	19	(0.9)	▽
Italy	70	(1.5)	▲	62	(1.3)	△	68	(1.4)	△	19	(1.1)	▽
Latvia[1]	43	(1.3)	▽	58	(1.4)	△	54	(1.2)	▽	18	(0.9)	▼
Lithuania	55	(1.3)		45	(1.1)	▽	53	(1.3)	▽	20	(0.9)	▽
Malta	40	(1.4)	▼	48	(1.5)	▽	66	(1.6)	△	22	(1.2)	▽
Netherlands†	48	(1.4)	▽	57	(1.9)		62	(1.7)		12	(0.9)	▼
Norway (9)[1]	79	(0.8)	▲	52	(1.2)		83	(0.8)	▲	34	(1.0)	△
Poland	58	(1.2)	△	58	(1.0)	△	47	(1.1)	▼	32	(1.2)	△
Romania	45	(1.4)	▽	70	(1.3)	▲	63	(1.8)		38	(2.1)	△
Serbia	31	(1.3)	▼	42	(1.1)	▼	53	(1.4)	▽	19	(1.0)	▽
Slovak Republic	56	(1.5)	△	63	(1.2)	△	61	(1.4)		39	(1.3)	▲
Slovenia	59	(1.1)	△	72	(0.8)	▲	62	(1.0)		47	(1.1)	▲
Spain	39	(1.1)	▼	41	(1.2)	▼	50	(1.2)	▼	15	(0.8)	▼
Sweden[1]	75	(1.0)	▲	58	(1.6)	△	78	(1.3)	▲	21	(1.1)	▽
ICCS 2022 average	53	(0.3)		53	(0.3)		62	(0.3)		28	(0.3)	
Countries not meeting sample participation requirements												
Brazil	58	(1.0)		69	(0.9)		65	(0.9)		28	(0.9)	
Denmark	65	(1.3)		67	(1.5)		69	(1.3)		31	(1.3)	
German benchmarking participant meeting sample participation requirements												
North Rhine-Westphalia	75	(1.1)	▲	71	(1.4)	▲	52	(1.9)	▽	30	(1.2)	
German benchmarking participant not meeting sample participation requirements												
Schleswig-Holstein	71	(2.0)		60	(2.3)		49	(2.2)		22	(1.8)	

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling paticipation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

Table 6.13 Teachers' reports on students' opportunities to learn about civic topics and skills

Country	National percentages of teachers of civic-related subjects who reported students having opportunities to learn about civic topics and skills to a large or moderate extent:						
	Human rights	Voting and elections	The global community and international organizations	The environment and environmental sustainability	Emigration and immigration	Equal opportunities for men and women	Citizens' rights and responsibilities
Bulgaria†	75 (5.1) ▼	61 (5.4)	71 (4.8)	81 (3.1) ▽	67 (4.4)	74 (4.5)	79 (4.2) ▽
Chinese Taipei	94 (2.2) △	98 (1.2) ▲	57 (3.8) ▼	74 (3.4) ▼	35 (4.2) ▼	90 (2.6) △	96 (2.2) △
Croatia	76 (1.3) ▼	47 (1.5) ▼	50 (1.7) ▼	83 (1.4) ▽	51 (1.3) ▼	69 (1.4) ▼	69 (1.4) ▼
Italy	95 (0.6) △	54 (1.8) ▼	74 (1.2) △	98 (0.4) ▲	84 (1.2) ▲	89 (0.8) △	94 (0.7) △
Lithuania	78 (2.2) ▼	63 (2.7) ▽	75 (2.1) △	91 (1.1) △	82 (1.7) ▲	71 (1.9) ▼	87
Malta	75 (4.9) ▼	55 (9.7)	56 (7.9)	80 (4.6)	62 (8.4)	77 (4.0)	80 (4.5)
Norway (9)	99 (0.5) ▲	99 (0.4) ▲	92 (1.5) ▲	98 (0.6) ▲	90 (1.8) ▲	95 (1.3) ▲	94 (1.4) △
Poland	100 (0.3) ▲	95 (2.6) ▲	95 (1.9) ▲	85 (3.5)	89 (3.4) ▲	83 (3.8)	99 (0.7) ▲
Romania	92 (1.9)	69 (4.0)	71 (3.8)	85 (3.5)	73 (3.7)	79 (3.2)	88 (2.8)
Serbia	92 (4.0)	39 (6.6) ▼	51 (4.7) ▼	90 (3.9)	58 (7.3) ▼	87 (3.5)	91 (3.2)
Slovak Republic	95 (1.2) △	84 (3.0) ▲	73 (2.8)	91 (1.5) △	71 (2.6)	75 (2.7) ▽	92 (1.4) △
Slovenia	92 (1.1) △	78 (2.3) △	76 (1.9) △	92 (1.1) △	74 (1.6) △	77 (1.6) ▽	90 (1.2)
Spain	87 (2.1)	64 (3.2)	63 (3.1) ▽	88 (1.6)	81 (2.8) ▲	93 (1.5) ▲	83 (2.1) ▽
ICCS 2022 average	88 (0.7)	70 (1.2)	70 (1.0)	87 (0.7)	71 (1.1)	81 (0.8)	88 (0.7)
Countries not meeting sample participation requirements							
Brazil	93 (1.7)	86 (2.4)	86 (2.4)	94 (1.7)	89 (2.2)	89 (2.9)	91 (2.7)
Colombia	93 (2.2)	87 (2.5)	74 (4.5)	89 (3.8)	70 (4.8)	85 (3.8)	93 (1.9)
Cyprus	80 (2.2)	42 (3.0)	52 (2.7)	89 (1.4)	69 (2.2)	75 (2.5)	77 (2.3)
Denmark	99 (1.3)	97 (3.3)	96 (2.1)	90 (3.1)	83 (5.0)	94 (2.7)	95 (2.6)
Estonia	80 (2.8)	74 (3.1)	65 (3.4)	84 (2.7)	62 (3.6)	74 (3.1)	84 (2.4)
France	85 (3.1)	82 (3.2)	61 (4.4)	86 (3.4)	84 (2.7)	84 (3.0)	84 (3.3)
Latvia	86 (3.8)	71 (3.5)	75 (3.4)	86 (3.5)	68 (4.0)	70 (4.0)	87 (3.3)
Netherlands	58 (5.5)	57 (5.7)	52 (5.1)	73 (4.9)	62 (3.6)	64 (2.9)	56 (3.7)
Sweden	98 (1.2)	97 (1.2)	93 (1.7)	98 (1.1)	93 (2.0)	95 (1.6)	97 (1.5)
German benchmarking participant not meeting sample participation requirements							
North Rhine-Westphalia	81 (1.7)	87 (1.6)	64 (1.6)	86 (1.5)	68 (1.9)	77 (1.8)	75 (1.2)

(continued)

Table 6.13 (continued)

Country	National percentages of teachers of civic-related subjects who reported students having opportunities to learn about civic topics and skills to a large or moderate extent:					
	The constitution and political systems	Responsible internet use (e.g., privacy, source reliability, social media)	Critical and independent thinking	Conflict resolution	Global issues (such as world poverty, international conflicts, child labor, social justice)	Diversity and inclusiveness
Bulgaria†	71 (4.7)	86 (3.3)	84 (3.6)	85 (3.4)	76 (4.2)	67 (5.5) ▼
Chinese Taipei	95 (2.2) ▲	92 (1.9)	75 (4.5) ▼	74 (4.1) ▼	61 (4.5) ▼	77 (2.7)
Croatia	46 (2.0) ▼	86 (1.1) ▽	79 (1.4) ▽	82 (1.4)	70 (1.4) ▽	68 (1.4) ▼
Italy	82 (1.1) △	95 (0.8) △	83 (1.5)	76 (1.3) ▽	90 (1.0) △	94 (0.7) ▲
Lithuania	77 (2.1)	87 (1.6) ▽	84 (1.6)	85 (1.5)	79 (2.1)	69 (2.3) ▼
Malta	54 (6.7) ▼	83 (5.0)	79 (5.5)	71 (4.3) ▼	71 (5.8)	85 (4.3)
Norway (9)	98 (0.9) ▲	98 (0.7) △	98 (0.7) ▲	90 (2.0) △	96 (1.3) ▲	95 (1.5) ▲
Poland	97 (1.1) ▲	99 (0.8) △	94 (1.9) △	94 (2.6) △	94 (1.9) ▲	80 (4.0)
Romania	70 (4.2)	88 (3.6)	87 (3.4)	89 (3.5)	78 (4.8)	76 (3.8)
Serbia	53 (8.9) ▼	97 (1.5) △	93 (2.6) △	97 (1.7) ▲	78 (4.6)	92 (2.5) ▲
Slovak Republic	83 (2.5) △	92 (1.6)	88 (2.3)	86 (3.1)	85 (1.9) △	74 (2.7) ▽
Slovenia	77 (1.8)	95 (0.7) △	93 (1.0) △	93 (0.9) △	82 (1.7)	85 (1.4) △
Spain	64 (2.6) ▼	85 (1.9) ▽	85 (2.3)	84 (2.1)	77 (2.6)	83 (2.9)
ICCS 2022 average	74 (1.1)	91 (0.6)	86 (0.8)	85 (0.7)	80 (0.9)	80 (0.8)
Countries not meeting sample participation requirements						
Brazil	82 (3.0)	89 (2.1)	92 (2.2)	84 (2.8)	90 (2.3)	93 (2.0)
Colombia	88 (2.5)	82 (3.9)	83 (4.2)	91 (2.0)	77 (4.1)	84 (3.3)
Cyprus	41 (2.5)	86 (1.8)	88 (1.5)	80 (2.0)	77 (2.0)	76 (2.3)
Denmark	99 (1.4)	91 (3.9)	98 (1.1)	85 (3.9)	82 (6.1)	81 (6.3)
Estonia	74 (2.9)	86 (2.2)	88 (1.9)	83 (2.7)	73 (3.2)	68 (3.2)
France	61 (4.2)	81 (3.6)	76 (4.3)	57 (3.8)	72 (4.0)	64 (4.2)
Latvia	80 (3.9)	90 (2.6)	93 (2.0)	89 (2.3)	78 (3.4)	77 (4.1)
Netherlands	54 (2.4)	77 (4.8)	89 (2.4)	55 (2.6)	76 (5.0)	54 (3.9)
Sweden	97 (1.2)	95 (1.3)	97 (1.0)	71 (3.4)	93 (1.7)	85 (2.6)
German benchmarking participant not meeting sample participation requirements						
North Rhine-Westphalia	78 (1.8)	85 (1.1)	91 (1.0)	89 (1.1)	77 (1.4)	66 (2.0)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Met guidelines for sampling paticipation rates only after replacement schools were included.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

analyze information gathered from multiple web sources (e.g., wikis, online newspapers)"; "students study textbooks"; "students propose topics/issues for the following lessons"; "students make presentations using digital technologies"; and "students use digital technologies for project or class work." Eight of these items had been included in the ICCS 2016 teacher questionnaire.

On average the highest percentages of teachers of civic-related subjects who used these activities often or very often were for, students discuss current issues (77%), use digital technologies for project or class work (56%), and study textbooks (54%) (Table 6.14). Across countries, the lowest percentages were for, students work on projects that involve gathering information outside school (15%), propose topics/issues for the given lessons (20%), and participate in role plays (29%).

While we recorded notable variation across countries, in most national contexts teachers seemed to adopt a combination of more traditional teaching activities (such as reading a textbook and giving lectures with students taking notes) with more interactive ones such as classroom discussions and working with digital technologies (see Teegelbeckers et al., 2023). Group work was quite extensively used in most countries (except Chinese Taipei). Less frequent, in almost all participating countries, were projects that require students to work in research activities outside school, such as conducting interviews or small-scale surveys.

6.4.3 Education for Sustainable Development and Global Citizenship Education at School

In recent years, the content and objectives of civic and citizenship education have expanded in relation to demographic, environmental, economic, and social issues and challenges as well as increasing cross-national interconnectedness (Schulz et al., 2023). These new issues and challenges also resulted in a broadening of the concept of citizenship itself (UNESCO, 2015). Education for sustainable development (ESD) and global citizenship education (GCED) are increasingly considered as strongly related to civic and citizenship education.

Aspects associated with ESD and GCED were investigated in previous IEA studies of civic and citizenship education, although this was not always recognized explicitly. Data from ICCS 2016 have also been used for the development of ESD and GCED indicators (Sandoval-Hernández et al., 2019). ICCS 2022 expanded the number of aspects related to ESD and GCED included in the survey (Schulz et al., 2023).

In this section of the current chapter, we explore results from the school and teacher questionnaires related to: environmentally-friendly activities carried out at school; environmental activities organized by teachers with their students; activities related to ESD and CGED at school; and activities related to global issues conducted by teachers with their target-grade students.

A question included in the school questionnaire (similar to that already used in ICCS 2016) asked principals about types of environment-friendly activities schools implemented in order to enhance students' sense of responsibility toward environmental issues. The items included in this question were the following: "Differential waste collection"; "waste reduction"; "purchasing of environmentally-friendly items"; "energy-saving practices"; "activities to encourage students' environmental-friendly behaviors (e.g., posters, leaflets)"; "use of [fair trade] products (e.g., [tea or coffee in the staffroom, canteen food]"; "use of local food for meals in the canteen"; "re-allocation of intact and non-consumed foods to charities or those in need"; and "educational [school gardens]." The last three of these items were new for ICCS 2022.

Across participating countries, the most common practices reported by principals as being adopted to a large or moderate extent were those related to differential waste collection and reduction (84% and 76% respectively), energy saving (81%) and encouraging students' environmental-friendly behaviors, through posters and leaflets (79%) (Table 6.15). Lower percentages reported adopting practices related to the re-allocation of non-consumed foods (24%), the use of fair-trade products (42%), and for educational school gardens (41%). There was considerable cross-national variation, mainly with respect to practices related to school organization and to the structure of the school buildings. Results for countries participating in both ICCS 2016 and 2022 are quite similar.

Teachers were asked whether they organized activities related to environmental issues with their target-grade students, such as: writing letters to newspapers or magazines; signing a petition on environmental issues; posting comments on social networks; activities to make students aware of the environmental impact of excessive consumption of resources; and environmental activities outside the school (such as clean-up activities and recycling and waste collection in the local community). On average across participating countries, the most frequently reported activities were those related to the

Table 6.14 Teachers' reports on civic and citizenship education activities in classroom

Country	National percentages of teachers of civic-related subjects who reported conducting the following activities with their target-grade students often or very often:									
	Students work on projects that involve gathering information outside school (e.g., interviews in the neighborhood, small scale surveys)		Students work in small groups on different topics/issues		Students participate in role plays		Students take notes during teacher's lectures		Students discuss current issues	
Bulgaria†	20 (3.5)		45 (5.2)		36 (4.7)		64 (4.8)	▲	73 (5.3)	
Chinese Taipei	2 (0.9)	▼	13 (2.3)	▼	8 (1.7)	▼	90 (2.9)	▲	69 (3.6)	▽
Croatia	12 (1.5)	▽	41 (1.8)	▽	28 (1.8)		42 (1.1)	▽	64 (1.4)	▼
Italy	13 (0.8)	▽	43 (1.2)	▽	17 (1.2)	▼	56 (1.9)	△	71 (1.4)	▽
Lithuania	15 (2.0)		56 (2.8)	△	28 (2.5)		55 (2.6)	△	89 (1.5)	▲
Malta	6 (2.6)	▽	44 (4.1)		27 (4.0)		20 (3.3)	▼	72 (2.6)	▽
Norway (9)	20 (3.2)		76 (2.8)	▲	8 (1.8)	▼	42 (4.1)		76 (2.7)	
Poland	25 (3.5)	△	56 (4.9)		25 (3.3)		51 (4.6)		85 (2.8)	△
Romania	21 (2.6)	△	58 (3.1)	△	50 (3.5)	▲	77 (2.8)	▲	83 (2.3)	△
Serbia	23 (4.0)	△	78 (4.5)	▲	62 (5.5)	▲	23 (6.0)	▼	92 (3.9)	▲
Slovak Republic	19 (2.1)		52 (3.3)		33 (2.6)		41 (3.2)	▽	79 (2.3)	
Slovenia	12 (1.4)	▽	46 (2.2)	▽	37 (2.4)	△	57 (2.0)	△	75 (1.7)	
Spain	12 (2.2)		53 (3.4)		23 (2.8)	▽	32 (2.7)	▼	70 (3.8)	
ICCS 2022 average	15 (0.7)		51 (0.9)		29 (0.9)		50 (1.0)		77 (0.8)	
Countries not meeting sample participation requirements										
Brazil	19 (3.0)		53 (3.4)		22 (3.1)		57 (3.8)		67 (3.6)	
Colombia	20 (3.8)		64 (3.8)		50 (4.2)		65 (4.2)		71 (6.7)	
Cyprus	13 (1.6)		34 (2.6)		32 (2.5)		55 (2.5)		69 (2.6)	
Denmark	29 (7.1)		88 (4.5)		12 (3.5)		63 (5.6)		86 (4.8)	
Estonia	9 (1.9)		50 (3.3)		22 (2.7)		64 (3.5)		71 (2.7)	
France	6 (2.1)		57 (3.9)		18 (3.5)		38 (4.9)		63 (4.2)	
Latvia	19 (2.8)		71 (5.1)		32 (4.9)		57 (4.2)		78 (3.5)	
Netherlands	7 (1.7)		29 (5.4)		3 (1.0)		78 (4.8)		51 (9.1)	
Sweden	5 (1.3)		62 (3.5)		10 (2.8)		64 (3.2)		83 (3.5)	
German benchmarking participant not meeting sample participation requirements										
North Rhine-Westphalia	7 (0.9)		69 (1.9)		33 (2.1)		76 (1.8)		77 (1.3)	

(continued)

Table 6.14 (continued)

Country	National percentages of teachers of civic-related subjects who reported conducting the following activities with their target-grade students often or very often:																				
	Students research and/or analyze information gathered from multiple web sources (e.g., wikis, online newspapers)			Students study textbooks			Students propose topics/issues for the following lessons			Students make presentations using digital technologies (e.g., PowerPoint/Prezi, videos, multimedia)			Students use digital technologies for project or class work		
Bulgaria†	39	(4.7)	▼	75	(5.4)	▲	11	(2.8)	▽	58	(5.2)		53	(4.8)	
Chinese Taipei	28	(3.7)	▼	82	(3.1)	▲	16	(2.2)		20	(2.9)	▼	17	(2.6)	▼
Croatia	47	(1.9)	▽	51	(1.7)		20	(1.3)		50	(1.9)		52	(2.3)	
Italy	63	(1.8)	△	57	(1.7)		20	(1.1)		64	(1.8)	▲	64	(1.6)	△
Lithuania	61	(2.7)	△	80	(2.0)	▲	28	(2.5)	△	58	(2.4)	△	69	(2.8)	▲
Malta	41	(6.9)	▼	28	(8.4)	▼	19	(5.9)		26	(7.7)	▼	42	(6.4)	▼
Norway (9)	61	(3.8)	△	42	(4.1)	▼	10	(1.8)	▼	64	(3.2)	▲	71	(3.2)	▲
Poland	59	(4.5)		57	(4.7)		8	(2.0)	▼	59	(5.2)		62	(5.2)	
Romania	68	(3.1)	▲	80	(3.4)	▲	34	(3.2)	▲	48	(4.2)		58	(3.7)	
Serbia	68	(5.4)	▲	15	(5.1)	▼	45	(7.3)	▲	42	(4.0)	▽	55	(4.2)	
Slovak Republic	52	(2.4)		41	(3.1)	▼	10	(1.5)	▽	52	(3.8)		62	(3.5)	
Slovenia	44	(2.0)	▽	59	(2.2)	△	13	(1.2)	▽	55	(1.8)	△	56	(2.3)	
Spain	54	(3.1)		37	(3.2)	▼	25	(2.5)	△	53	(3.1)		67	(3.4)	▲
ICCS 2022 average	53	(1.1)		54	(1.1)		20	(0.9)		50	(1.1)		56	(1.0)	
Countries not meeting sample participation requirements															
Brazil	53	(3.1)		77	(3.3)		27	(4.5)		31	(2.6)		40	(3.5)	
Colombia	49	(6.1)		39	(4.1)		22	(2.9)		37	(4.0)		39	(5.1)	
Cyprus	50	(2.4)		69	(2.5)		18	(1.7)		46	(2.5)		48	(2.7)	
Denmark	77	(6.6)		44	(7.2)		13	(3.8)		72	(6.0)		79	(5.6)	
Estonia	52	(3.5)		60	(3.7)		11	(2.2)		36	(3.3)		40	(3.4)	
France	44	(3.3)		32	(4.8)		11	(2.3)		23	(3.5)		37	(3.5)	
Latvia	62	(3.7)		54	(3.6)		18	(3.1)		67	(4.0)		78	(3.7)	
Netherlands	44	(3.9)		93	(1.7)		7	(2.1)		33	(6.3)		50	(4.8)	
Sweden	62	(3.8)		69	(3.6)		11	(2.8)		36	(3.6)		66	(3.8)	
German benchmarking participant not meeting sample participation requirements															
North Rhine-Westphalia	54	(2.4)		69	(2.1)		22	(1.7)		64	(2.1)		64	(2.1)	

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Met guidelines for sampling paticipation rates only after replacement schools were included.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

Table 6.15 Percentages of students at schools where principals' reported environment-friendly practices at school

Country	National percentages of students at schools where principals reported that the school had adopted the following environment-friendly activities to a large or a moderate extent:																				
	Differential waste collection						Waste reduction (e.g., encouraging waste-free lunches, limiting the use of plastic disposable products)						Purchasing of environmentally friendly items (e.g., recycled paper for printing, biodegradable cutlery and dishes)						Energy-saving practices						Activities to encourage students' environmental-friendly behaviors (e.g., posters, leaflets)					
Bulgaria	70	(4.2)	▼				61	(4.0)	▼				66	(4.4)					82	(3.3)					95	(1.9)	▲			
Chinese Taipei	100	(0.0)	▲				99	(0.6)	▲				98	(0.9)	▲				99	(0.7)	▲				95	(1.7)	▲			
Colombia	80	(4.8)					66	(5.2)	▼				59	(5.1)					73	(4.6)					81	(4.3)				
Croatia[1]	93	(2.4)	△				79	(3.6)					55	(4.3)	▼				86	(3.1)					91	(2.6)	▲			
Cyprus	95	(0.1)	▲				79	(0.2)	△				81	(0.2)	▲				80	(0.2)					97	(0.1)	▲			
Estonia	78	(3.6)					80	(4.1)					51	(4.5)	▼				61	(5.2)	▼				77	(5.6)				
France	84	(3.2)					83	(3.2)	△				72	(3.9)					73	(4.4)					77	(3.9)				
Italy	90	(4.3)					80	(3.7)					69	(3.9)					74	(3.8)					70	(4.3)	▽			
Latvia[1]	75	(4.0)	▽				66	(4.3)	▼				63	(4.2)					86	(3.0)					71	(4.4)				
Lithuania	90	(2.6)	△				89	(2.6)	▲				60	(4.3)					97	(1.3)	▲				83	(3.3)				
Malta	89	(7.0)					90	(6.8)	▲				91	(3.2)	▲				83	(8.9)					71	(10.8)				
Netherlands†	46	(5.9)	▼				21	(4.5)	▼				38	(5.6)	▼				60	(5.7)	▼				34	(5.7)	▼			
Norway (9)[1]	86	(3.4)					78	(4.0)					72	(4.1)					74	(4.2)					56	(4.7)	▼			
Poland	94	(1.6)	△				86	(2.7)	△				71	(3.6)					89	(2.5)	△				96	(1.5)	▲			
Romania	81	(4.4)					82	(4.0)					77	(4.2)	△				97	(1.5)	▲				77	(8.8)				
Serbia	72	(3.9)	▼				55	(4.2)	▼				34	(4.0)	▼				57	(4.7)	▼				87	(2.7)	△			
Slovak Republic	97	(1.3)	▲				68	(3.8)	▽				64	(3.9)					95	(2.0)	▲				96	(1.4)	▲			
Slovenia	99	(0.9)	▲				99	(0.9)	▲				87	(2.4)	▲				97	(1.3)	▲				95	(1.8)	▲			
Spain	90	(2.6)	△				76	(4.2)					66	(4.0)					80	(3.5)					87	(2.7)	△			
Sweden[1]	80	(3.8)					88	(2.8)	▲				84	(4.5)	▲				68	(5.3)	▼				53	(4.9)	▼			
ICCS 2022 average	84	(0.8)					76	(0.8)					68	(0.9)					81	(0.9)					79	(1.0)				
Countries not meeting sample participation requirements																														
Brazil	70	(4.4)					79	(4.0)					48	(4.7)					79	(3.2)					83	(3.2)				
Denmark	81	(4.1)					55	(4.6)					73	(3.9)					82	(3.7)					64	(3.8)				
German benchmarking participant meeting sample participation requirements																														
North Rhine-Westphalia	68	(4.1)	▼				52	(4.8)	▼				57	(4.3)	▼				59	(4.7)	▼				55	(4.2)	▼			
German benchmarking participant not meeting sample participation requirements																														
Schleswig-Holstein	73	(5.2)					68	(4.5)					64	(6.4)					59	(6.5)					57	(6.8)				

(continued)

Table 6.15 (continued)

Country	National percentages of students at schools where principals reported that the school had adopted the following environment-friendly activities to a large or a moderate extent:											
	Use of fair trade products (e.g., tea or coffee in the staffroom, canteen food)			Use of local food for meals in the canteen			Re-allocation of intact and non-consumed foods to charities or those in need			Educational school gardens		
Bulgaria	9	(2.1)	▼	24	(3.2)	▼	9	(2.6)	▼	70	(3.9)	▲
Chinese Taipei	71	(3.8)	▲	88	(2.2)	▲	45	(3.8)	▲	76	(3.5)	▲
Colombia	68	(4.7)	▲	49	(5.3)		22	(4.0)		48	(5.2)	
Croatia[1]	75	(3.9)	▲	54	(4.5)		33	(4.0)	△	42	(4.4)	
Cyprus	59	(0.3)	▲	70	(0.3)	▲	37	(0.3)	▲	62	(0.3)	▲
Estonia	44	(5.0)		72	(4.0)	▲	23	(4.7)		12	(3.3)	▼
France	49	(4.8)		84	(3.7)	▲	18	(3.5)		48	(4.5)	
Italy	23	(3.2)	▼	38	(4.1)	▼	16	(3.1)	▽	43	(4.0)	
Latvia[1]	37	(4.5)		79	(3.4)	▲	25	(3.9)		14	(2.8)	▼
Lithuania	47	(4.5)		73	(3.9)	▲	15	(3.6)	▽	31	(3.9)	▼
Malta	49	(11.3)		62	(9.4)		46	(10.7)	▲	62	(12.9)	
Netherlands†	16	(4.5)	▼	18	(3.8)	▼	21	(4.0)		23	(5.5)	▼
Norway (9)[1]	28	(4.6)	▼	34	(4.2)	▼	21	(3.9)		20	(3.8)	▼
Poland	45	(3.6)		46	(3.9)	▽	16	(2.6)	▽	22	(3.5)	▼
Romania	14	(4.7)	▼	14	(4.5)	▼	13	(4.4)	▼	55	(7.8)	
Serbia	43	(4.4)		28	(3.9)	▼	23	(3.3)		17	(2.8)	▼
Slovak Republic	39	(4.2)		77	(3.3)	▲	23	(3.7)		52	(4.5)	▲
Slovenia	39	(3.5)		89	(2.5)	▲	28	(3.7)		62	(3.9)	▲
Spain	26	(3.5)	▼	39	(3.4)	▼	31	(3.5)	△	54	(4.1)	▲
Sweden[1]	69	(5.2)	▲	65	(4.6)	▲	8	(2.3)	▼	9	(1.8)	▼
ICCS 2022 average	42	(1.1)		55	(0.9)		24	(0.9)		41	(1.1)	
Countries not meeting sample participation requirements												
Brazil	54	(4.8)		66	(4.9)		31	(4.2)		25	(4.1)	
Denmark	38	(4.7)		18	(3.9)		8	(2.9)		20	(3.9)	
German benchmarking participant meeting sample participation requirements												
North Rhine-Westphalia	40	(4.2)		37	(4.3)	▼	9	(2.8)	▼	47	(4.4)	
German benchmarking participant not meeting sample participation requirements												
Schleswig-Holstein	40	(6.5)		48	(6.2)		10	(3.3)		55	(6.6)	

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling paticipation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

environmental impact of excessive consumption of resources (61%) and recycling and waste collection in the local community (44%) (Table 6.16). The lowest percentages were recorded for activities requiring a students' "public" involvement outside the school, such as signing petitions on environmental issues (6%) and writing to newspapers or magazines to support action about the environment (10%). We observed similar low percentages for these activities in almost all participating countries.

Principals were asked about school activities promoting both ESD and GCED. Six items were included in this question: "Activities aimed at developing students' knowledge of different cultures (e.g., [visiting speakers representative of minority groups, experts from different countries and cultures, visits to cultural centers])"; "activities to raise students' awareness of important global issues (e.g., [climate change, world poverty, international conflicts, child labor])"; "activities to promote students' respect for the environment"; "activities to promote students' ethical and responsible attitudes towards consumerism"; "activities to raise students' awareness of the relations between local and global issues (e.g., migration, trade, environmental degradation)"; and "projects in partnership with other schools in other countries."

For most of these activities, high percentages of students were enrolled at schools where principals reported opportunities for students to participate. On average across countries, the highest percentages were observed for activities to promote students' respect for the environment (average percentage across countries: 92%) and for activities to raise students' awareness of important global issues (76%) (Table 6.17). The lowest percentages were recorded for projects in partnership with other schools in other countries (34%) and for activities aiming at developing students' knowledge of different cultures (41%). We found variation across countries for all the listed activities, mainly for those related to ethical and responsible consumerism and the promotion of partnership with schools of other countries.

Teachers of civic-related subjects were asked, in the international option, about activities related to global issues carried out with their students. The following five items were included: "Activities to raise students' awareness of important global issues (e.g., collecting, analyzing, and evaluating information in reports from NGOs or international organizations, in newspapers or online)"; "activities to raise students' awareness of the relations between local and global issues (e.g., activities on social and economic interconnections, on the global economy, on the roots of migration)"; "activities to inform students about [fair trade] (e.g., activities focused on where the food comes from and on the people involved in producing it)"; "activities to make students aware about collective engagement to achieve improvements worldwide (e.g., [climate change protests, environment clean-up movements, social justice movements])"; and "activities to analyze how diverse identities influence the ability to live together."

In almost all the participating countries quite high percentages of teachers indicated that their students were involved in the listed activities. On average across countries, we observed the highest percentages for activities to analyze how different identities influence the ability to live together (63%) and activities to raise students' awareness of the relations between local and global issues (62%) (Table 6.18). We also found quite high percentages for activities to make students aware about collective engagement to achieve improvements worldwide (61%). The results show lower percentages of teachers indicating involvement in activities to inform students about fair trade (42%) and activities to raise students' awareness of important global issues (51%). For two countries we recorded national averages significantly above the ICCS average for all activities (Norway) or for most of them (Poland).

Table 6.16 Teachers' reports on students' environmental activities at school

Country	National percentages of teachers who reported having carried out the following enviromental activities with their target-grade students:					
	Writing letters to newspapers or magazines to support actions about the environment (e.g., waste collection, recycling)	Signing a petition on environmental issues (e.g., climate change, water pollution, noise pollution, plastic pollution)	Posting on social network, forum or blog to support actions about the environment (e.g., waste collection, recycling)	Activities to make students aware of the environmental impact of excessive consumption of resources (e.g., water, energy)	Clean-up activities outside the school	Recycling and waste collection in the local community
Bulgaria†	7 (0.8) ▽	3 (0.5) ▽	23 (1.8)	58 (1.6)	45 (2.3) △	48 (1.8) △
Chinese Taipei	11 (0.7)	8 (0.6) △	19 (0.9)	58 (1.1) ▽	20 (1.8) ▼	11 (1.2) ▼
Croatia	7 (1.1) ▽	5 (1.5)	20 (1.8)	63 (2.2)	39 (3.1)	46 (3.3)
Italy	5 (0.6) ▽	4 (0.5) ▽	13 (0.8) ▽	80 (1.0) ▲	26 (1.5) ▼	49 (1.5) △
Lithuania	7 (0.7) ▽	6 (0.9)	20 (1.1)	52 (1.7) ▽	45 (2.3) △	55 (1.4) ▲
Malta	11 (2.5)	2 (0.8) ▽	8 (1.6) ▼	40 (3.6) ▼	9 (0.8) ▼	19 (2.7) ▼
Norway (9)	2 (0.4) ▽	2 (0.4) ▽	2 (0.4) ▼	58 (2.0)	59 (2.0) ▲	42 (2.2)
Poland	5 (0.6) ▽	5 (0.6)	25 (1.2) △	64 (1.4) △	40 (1.7)	58 (1.7) ▲
Romania	23 (1.9) ▲	11 (0.8) △	41 (1.6) ▲	71 (1.8) ▲	63 (2.3) ▲	61 (1.9) ▲
Serbia	14 (1.3) △	11 (1.3) △	41 (1.5) ▲	62 (1.9)	37 (2.0)	36 (1.8) ▽
Slovak Republic	12 (1.3) △	4 (0.5) ▽	19 (1.6)	67 (1.7) △	59 (2.1) ▲	73 (1.5) ▲
Slovenia	15 (0.9) △	5 (0.5)	22 (0.9)	54 (1.3) ▽	36 (1.9)	56 (1.2) ▲
Spain	8 (0.8)	7 (0.7)	16 (1.1) ▽	61 (1.7)	14 (1.4) ▼	20 (1.7) ▼
ICCS 2022 average	10 (0.3)	6 (0.2)	21 (0.4)	61 (0.5)	38 (0.6)	44 (0.5)
Countries not meeting sample participation requirements						
Brazil	16 (1.7)	13 (1.6)	27 (2.0)	74 (2.1)	32 (2.4)	32 (2.1)
Colombia	36 (4.0)	20 (2.1)	31 (3.0)	76 (2.6)	65 (2.6)	62 (3.0)
Cyprus	20 (1.5)	13 (1.3)	22 (1.5)	52 (1.8)	32 (1.6)	46 (1.7)
Denmark	3 (1.5)	2 (1.4)	14 (3.0)	55 (5.2)	21 (2.9)	24 (3.5)
Estonia	4 (0.4)	3 (0.6)	6 (0.7)	44 (1.7)	21 (1.6)	17 (1.3)
France	5 (0.7)	1 (0.3)	4 (0.7)	44 (1.8)	8 (1.0)	12 (1.1)
Latvia	5 (0.7)	3 (0.5)	17 (1.4)	45 (1.9)	30 (2.0)	38 (1.9)
Netherlands	4 (0.8)	1 (1.0)	3 (0.6)	28 (2.3)	11 (2.0)	10 (1.5)
Sweden	4 (0.6)	2 (0.5)	3 (0.5)	49 (1.8)	10 (1.4)	15 (1.6)
German benchmarking participant not meeting sample participation requirements						
North Rhine-Westphalia	4 (0.4)	2 (0.3)	6 (0.5)	40 (1.5)	17 (1.1)	20 (1.0)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Met guidelines for sampling paticipation rates only after replacement schools were included.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

Table 6.17 Percentages of students at schools where principals' reported school activities to promote ESD/GCED

Country	National percentages of students at schools where principals reported the occurrence of the following activities to promote ESD/GCED:											
	Activities aimed at developing students' knowledge of different cultures (e.g., visiting speakers representative of minority groups, experts from different countries and cultures, visits to cultural centers)			Activities to raise students' awareness of important global issues (e.g., climate change, world poverty, international conflicts, child labor)			Activities to promote students' respect for the environment			Activities to promote students' ethical and responsible attitudes towards consumerism			Activities to raise students' awareness of the relations between local and global issues (e.g., migration, trade, environmental degradation)			Projects in partnership with other schools in other countries		
Bulgaria	49	(4.5)		75	(3.6)		93	(2.1)		75	(3.7)	△	54	(4.5)		38	(3.9)	
Chinese Taipei	77	(3.6)	▲	89	(2.4)	▲	99	(0.7)	△	87	(2.2)	▲	85	(2.9)	▲	34	(3.5)	
Colombia	32	(4.5)	▽	78	(3.6)		97	(1.5)	△	75	(3.8)	△	68	(4.4)		11	(3.0)	▼
Croatia[1]	39	(4.0)		83	(2.8)	△	100	(0.0)	△	64	(4.0)		61	(3.8)		47	(4.7)	▲
Cyprus	35	(0.2)	▽	83	(0.2)	△	98	(0.0)	△	72	(0.2)	△	58	(0.3)	▽	50	(0.3)	▲
Estonia	55	(6.5)	▲	64	(4.7)	▼	94	(2.9)		83	(4.0)	▲	60	(5.9)		48	(5.2)	▲
France	19	(3.9)	▼	50	(4.2)	▼	90	(2.8)		54	(4.9)	▼	42	(4.7)	▼	27	(4.1)	
Italy	36	(4.3)		87	(2.8)	▲	99	(0.7)	△	85	(3.1)	▲	66	(4.5)		27	(3.7)	
Latvia[1]	30	(3.3)	▼	68	(3.8)	▽	95	(1.8)		55	(4.6)	▼	49	(4.6)	▼	47	(3.9)	▲
Lithuania	53	(3.7)	▲	79	(3.4)		98	(1.1)	△	86	(3.0)	▲	78	(3.8)	▲	51	(4.4)	▲
Malta	42	(9.9)		74	(12.3)		82	(10.1)		41	(8.5)	▼	49	(9.3)	▼	23	(8.7)	
Netherlands†	44	(5.6)		68	(5.5)		68	(5.1)	▼	47	(5.2)	▼	39	(5.8)	▼	28	(4.6)	
Norway (9)[1]	40	(4.8)		90	(2.8)	▲	93	(2.5)		90	(2.8)	▲	70	(4.1)	△	9	(2.9)	▼
Poland	30	(3.4)	▼	85	(2.7)	△	98	(1.1)	△	63	(3.5)		71	(3.5)	△	28	(3.5)	
Romania	47	(8.5)		80	(5.4)		99	(0.7)	△	76	(4.6)	▲	74	(5.1)	▲	47	(7.4)	
Serbia	35	(3.9)		64	(3.9)	▼	93	(2.1)		31	(4.1)	▼	76	(3.7)	▲	36	(3.7)	
Slovak Republic	31	(4.1)	▽	74	(3.1)		93	(2.1)		65	(3.9)		69	(3.6)	△	22	(3.0)	▼
Slovenia	44	(3.7)		70	(3.5)		95	(1.5)		43	(3.9)	▼	46	(4.0)	▼	56	(4.0)	▲
Spain	47	(4.2)		86	(3.2)	△	94	(1.9)		70	(3.5)		61	(4.5)		28	(4.1)	
Sweden[1]	29	(4.7)	▼	71	(4.6)		69	(5.0)	▼	57	(4.8)	▽	60	(5.1)		20	(3.8)	▼
ICCS 2022 average	41	(1.1)		76	(1.0)		92	(0.7)		66	(0.9)		62	(1.0)		34	(1.0)	
Countries not meeting sample participation requirements																		
Brazil	38	(4.5)		81	(3.2)		98	(1.1)		88	(3.0)		77	(3.9)		9	(2.6)	
Denmark	58	(5.0)		78	(3.7)		87	(3.3)		67	(4.4)		56	(4.8)		12	(3.3)	
German benchmarking participant meeting sample participation requirements																		
North Rhine-Westphalia	35	(4.9)		68	(4.2)		72	(4.3)	▼	71	(4.1)		57	(4.6)		35	(4.3)	
German benchmarking participant not meeting sample participation requirements																		
Schleswig-Holstein	18	(4.9)		73	(5.8)		73	(5.8)		69	(5.6)		57	(5.8)		34	(6.1)	

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Met guidelines for sampling paticipation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

Table 6.18 Teachers' reports on activities related to global issues

Country	National percentages of teachers who reported having carried out the following activities related to global issues with their target-grade students:									
	Activities to raise students' awareness of important global issues (e.g., collecting, analyzing and evaluating information in reports from NGOs or international organizations, in newspapers or online)		Activities to raise students' awareness of the relations between local and global issues (e.g., activities on social and economic interconnections, on the global economy, on the roots of migration)		Activities to inform students about fair trade (e.g., activities focused on where the food comes from and on the people involved in producing it)		Activities to make students aware about collective engagement to achieve improvements worldwide (e.g., climate change protests, environment clean-up movements, social justice movements)		Activities to analyze how diverse identities influence the ability to live together	
Bulgaria†	31	(3.8) ▼	59	(4.6)	30	(5.0) ▼	52	(4.7)	47	(5.0) ▼
Chinese Taipei	61	(3.0) ▲	61	(3.3)	42	(3.6)	68	(3.6) △	69	(4.5)
Croatia	33	(1.8) ▼	48	(1.5) ▼	39	(1.5)	55	(1.3) ▽	59	(1.2) ▽
Italy	48	(1.6) ▽	58	(1.5) ▽	31	(1.2) ▼	68	(1.3) △	66	(1.2)
Lithuania	50	(3.4)	74	(2.4) ▲	31	(2.6) ▼	54	(2.8) ▽	60	(2.4)
Malta	48	(6.3)	49	(7.9)	34	(3.8) ▽	45	(4.1) ▼	69	(4.9)
Norway (9)	80	(3.2) ▲	74	(3.2) ▲	67	(3.2) ▲	74	(2.9) ▲	73	(3.0) ▲
Poland	74	(4.1) ▲	90	(2.4) ▲	46	(4.8)	85	(2.5) ▲	79	(3.6) ▲
Romania	53	(3.2)	66	(3.1)	61	(3.2) ▲	57	(2.7)	56	(3.5)
Serbia	44	(4.7)	50	(4.4) ▼	34	(6.4)	61	(6.5)	67	(6.3)
Slovak Republic	43	(2.5) ▽	59	(2.9)	34	(2.5) ▽	53	(2.7) ▽	63	(2.7)
Slovenia	44	(2.6) ▽	51	(2.3) ▼	52	(2.0) ▲	48	(2.2) ▼	40	(2.7) ▼
Spain	57	(3.1) △	63	(3.1)	42	(3.0)	70	(2.9) △	69	(3.0) △
ICCS 2022 average	51	(1.0)	62	(1.0)	42	(1.0)	61	(0.9)	63	(1.0)
Countries not meeting sample participation requirements										
Brazil	64	(4.8)	81	(2.9)	55	(3.8)	74	(3.4)	81	(2.4)
Colombia	48	(4.8)	65	(3.7)	58	(5.3)	72	(4.2)	70	(4.4)
Cyprus	46	(2.2)	55	(2.6)	25	(2.1)	53	(2.4)	47	(3.0)
Denmark	58	(6.2)	76	(5.8)	16	(4.3)	46	(7.0)	88	(3.6)
Estonia	53	(3.1)	58	(3.5)	52	(3.2)	49	(3.5)	59	(3.2)
France	46	(4.3)	73	(3.5)	32	(4.1)	43	(4.1)	51	(4.3)
Latvia	47	(5.3)	70	(3.5)	35	(4.2)	59	(5.0)	55	(4.4)
Netherlands	41	(3.0)	58	(5.9)	54	(6.6)	34	(5.0)	46	(7.9)
Sweden	78	(2.5)	85	(2.6)	68	(3.9)	63	(4.0)	60	(4.2)
German benchmarking participant not meeting sample participation requirements										
North Rhine-Westphalia	37	(2.4)	59	(1.9)	49	(2.4)	57	(1.8)	41	(1.8)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Met guidelines for sampling paticipation rates only after replacement schools were included.

National ICCS 2022 results are:
▲ More than 10 percentage points above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 10 percentage points below ICCS 2022 average

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Explaining Variation in Civic Learning Outcomes

7

Chapter Highlights

Exploring factors related to civic knowledge

- As in previous cycles, analyses showed considerable differences in the variation of civic knowledge across countries, between and within schools. (Table 7.1)
- The associations of predictor variables with civic knowledge varied across countries. (Tables 7.2 and 7.3)
- Student background variables tended to explain variation in civic knowledge. While the effects of socioeconomic background at the student and school level varied across countries, we observed consistently positive associations across countries, that were of similar strength to those from the previous cycle. (Table 7.2)
- Among the student-level variables related to civic learning, perceptions of an open classroom climate for discussions and students' experience with voting at school tended to be positive predictors, even after controlling for the effects of other variables. However, perceptions of having learned about civic issues at school tended to have negative associations with civic knowledge in many countries. (Table 7.3)
- Among the aggregated school-level variables, perceptions of an open classroom climate tended to have the largest effects on civic knowledge, while (positive) associations of civic knowledge with the proportion of students with voting experience and average perceptions of civic learning were less consistent. (Table 7.4)

Exploring factors related to expected electoral and active political participation

- Multiple regression models used in the analyses explained about a quarter of the variance in expected electoral participation and about a third in expected active political participation, respectively. Most of the unique variance explanation was due to students' dispositions, such as self-efficacy, or civic knowledge. (Tables 7.5, 7.9 and 7.12)
- While student background variables and use of information sources explained some of the variance in students' expected electoral participation, these had less effect on their expectations to become politically active. (Tables 7.6, 7.10 and 7.12)
- Experience with participation (including engagement with digital media) tended to have more (positive) associations with expected active political participation than with expectations to vote. (Tables 7.6, 7.10 and 7.12)
- Among students' perceptions of the political system and its institutions, trust in civic institutions had the most consistent positive associations with both expected electoral and expected active political participation. While students' agreement with democracy as the best form of government only showed positive relationships with expectations to vote as adults in some countries, satisfaction with the political system often had positive associations with expectations to become politically active. (Tables 7.7, 7.11 and 7.12)
- Students' expected electoral and active political participation had positive associations with civic interest, citizenship self-efficacy, and beliefs in the importance of conventional citizenship behavior. Civic knowledge was consistently a positive predictor of expectations to vote but negatively associated with expected active political engagement. (Tables 7.7, 7.11 and 7.12)

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7.1 Introduction

This chapter presents results of multivariate analyses of the International Civic and Citizenship Education Study (ICCS) 2022 data that we conducted in an effort to explain variation in civic learning outcomes. It includes results from analyses of variations in three civic learning outcomes. We conducted multilevel analyses of students' civic knowledge, and (single-level) multiple regression analyses of students' expected electoral and active political participation.

The content of this chapter is primarily concerned with the following research questions:

- RQ2a: *Are there variations in civic knowledge that are associated with student characteristics and background variables?*
- RQ2b: *Which contextual factors explain variation in students' civic knowledge?*
- RQ3: *What is the extent of students' engagement in different spheres of society, and which factors, within or across countries, are related to it?*

Using a similar modeling approach to that described in the international report for ICCS 2016 (Schulz et al., 2018), the chapter describes and reports the outcomes of multilevel analyses of the student-level and school-level factors that potentially explain variation in students' civic knowledge. Analyses of between-school variation in civic knowledge revealed considerable variation across schools in most countries (rho[1] averaged 0.22). This consequently made multilevel modeling of student-level and school-level factors viable. In contrast, analyses of between-school variation for indicators of expected engagement showed relatively small variations in these outcomes across schools (rho averaged 0.07 for expected electoral participation and rho averaged 0.04 for expected political participation) (see Schulz et al., forthcoming). This made multilevel modeling less viable for the modeling of student-level and school-level factors and we consequently applied single-level multiple regression modeling for explaining variation in indicators of expected political participation instead.

The analyses presented in this chapter use data drawn from the ICCS 2022 student test and questionnaire. The non-response rates in ICCS 2022 for the teacher questionnaire as well as, in some countries, for the school principal questionnaire, were much higher than for the student test and questionnaire. Therefore, we focused on student-level data so that we could maximize the number of countries included in this first set of multivariate analyses of the ICCS 2022 data. We expect other researchers will conduct further multivariate analyses of the released ICCS 2022 data potentially using different outcome and predictor variables. The results presented in this chapter will act as a reference point for those more detailed analyses.

Although our statistical modeling uses predictor variables to "explain" variation in dependent variables, our results should not be interpreted as indicating causality. Given the limitations of international large-scale assessments and their cross-sectional designs (Rutkowski & Delandshere, 2016), it is not possible to reach firm conclusions about causal relationships from the findings presented in this chapter. We therefore encourage readers to regard these results as a review of associations between the dependent variables (civic knowledge, expected electoral participation, and expected active political participation) and relevant contextual variables. Our findings may suggest the possibility of causal relationships, but observed significant effects are not necessarily evidence of causality. Within our statistical models, there is a clear distinction between exogenous and endogenous variables; but these, too, do not easily translate into firm conclusions about causality.

7.2 Explaining Variation in Civic Knowledge

There have been many different studies that explored associations between different home- or school-related factors and students' civic knowledge. As part of the International Association for the Evaluation of Educational Achievement (IEA) study of civic education in 1971, researchers found that (male) gender, socioeconomic background, and encouragement of independent expression of opinion at school were positively associated with measures of students' civic knowledge (Torney et al., 1975). Further, research also presented evidence about a relationship between civic knowledge and level of reading literacy (Chall & Henry, 1991), a finding that was also supported by analyses of data from the American National Assessment of Educational Progress (NAEP), suggesting a positive association between students' use of English at home and their level of civic knowledge (Niemi & Junn, 1998).

[1]The coefficient rho (or ICC = intra-class correlation) is calculated by dividing the estimated between-school variance by the estimated overall variance (between-school plus within-school variation).

There is a great deal of evidence about the relationship between socioeconomic background, such as parental education and family income, and students' civic knowledge (Lutkus & Weiss, 2007; Niemi & Junn, 1998). The IEA Civic Education Study (CIVED) study in 1999 provided evidence about correlations between socioeconomic measures (home literacy and parental education) and civic knowledge across participating countries (Amadeo et al., 2002; Torney-Purta et al., 2001). There is also evidence of context-related influences of socioeconomic background, such as the socioeconomic composition of student populations at schools, on civic knowledge (Schulz et al., 2010, 2018).

Analyses of NAEP data from 1988 led Niemi and Junn (1998) to develop a conceptual model that posited that the acquisition of civic knowledge by students depended on their exposure to relevant information and their motivation to learn, using home-environment and school-related factors, such as curriculum, coursework, and recent civic instruction at school, as indicators of exposure. Other factors used in their analysis included students' plans to attend college, participation in mock elections, and enjoyment of studying civic-related topics as potentially important factors. Using a multiple regression model approach controlling for background factors, the authors found significant net associations between two student variables—taking classes or courses featuring civic topics and participating in role-played elections or mock trials—and students' civic knowledge. Results from CIVED 1999 and ICCS 2009 and 2016 also showed positive associations between home-related factors of civic learning (such as discussions about civic issues or access to media information) as well as school factors (such as student perceptions of an open classroom climate for discussion or student participation at school) and students' civic knowledge (Torney-Purta et al., 2001; Schulz et al., 2010).[2]

The ICCS 2022 assessment framework (Schulz et al., 2023) assumes that acquisition of civic knowledge is influenced by contextual factors that function at different levels (for example, community, school/classroom, home environment) and can be characterized as either antecedents or processes. Antecedents (factors such as test language use or socioeconomic background) set some constraints on student learning about civic-related issues and how it takes place. Factors directly related to the learning process (classroom climate for civic learning, student activities) are further important elements of context that potentially influence the development of civic-related knowledge and understanding as well as civic attitudes and engagement. Bronfenbrenner's (1979) ecological systems theory proposes that multiple systems interact with one another and influence young people's cognitive development. In accordance with the theory, the contacts adolescents have with family, school, peers, and the wider community all contribute to the development of their civic knowledge and act as agents of socialization. Additionally, young people themselves play an important role in shaping the ways in which these environments affect their development.

Bourdieu's (1986) theory of economic, cultural, and social capital provides a further perspective on the influences that multiple interacting factors have on the development of students' civic knowledge. Economic capital, as a resource for human capital (material resources and financial assets possessed by individuals), cultural capital (habits and dispositions), and social capital (societal links to other people) provide important elements shaping the development of adolescents. This perspective not only emphasizes the importance of socioeconomic background, but also recognizes the relevance of other forms of resources, including those related to interactions with other people, which Coleman (1988) conceptualizes as social capital. Generated by the relational structure of interactions inside and outside the family, social capital facilitates the success of an individual's actions as well as his or her learning efforts.

Drawing on these perspectives, we selected variables from the following categories as predictors in our model seeking to explain variation in students' civic knowledge:

A. *Student background and schools' social context*: student characteristics (gender, language use, expectation of completing a university degree, and interest in political or social issues) as well as the socioeconomic backgrounds of individual students and schools;
B. *Students' civic learning experiences outside school*: discussion of political and social issues (with peers and parents) as well as obtaining information from traditional and digital media;
C. *Students' civic learning experiences at school*: students' perceptions of civic learning at school, open classroom climate for discussions, and participation in voting at school; and
D. *School contexts for civic learning*: aggregated scores of variables reflecting students' perceptions of civic learning, open classroom climate, and civic engagement at school.

[2]Further articles presenting analyses of factors explaining civic knowledge can be found in an annotated bibliography of secondary analyses of the IEA civic and citizenship education studies compiled by Knowles and Di Stefano (2015).

To explain variation in civic knowledge, we estimated three models for these analyses, each of which included a different subset of variables:

- Model 0: This model had only the dependent variable and intercepts. We used it to estimate the variance between schools and within schools and thereby provide a baseline for the models that included predictor variables.
- Model 1: This model included only variables pertaining to student characteristics, socioeconomic home background, and school context (Category A variables).
- Model 2: This model included only those variables pertaining to civic learning outside school and at school. It did not control for student characteristics or for socioeconomic home background and school context variables (Categories B, C, and D variables).
- Model 3: This model included all the variables in Models 1 and 2 (Categories A, B, C, and D variables).

Our rationale for this grouping was that it allowed us to analyze, first, through Model 1, the influence of background factors on civic knowledge without having to consider process factors, and then, through Model 2, the associations between process factors related to civic learning at student and school levels without having to control for socioeconomic background. We chose this approach because of the difficulty of disentangling process factors from social context factors (for example, students from households with higher socioeconomic status being the students more likely to access media information or to develop interest in civic issues). Model 3 allowed us to report the net effect of civic learning factors after controlling for personal characteristics and the socioeconomic backgrounds of students and schools.

We used the following individual variables as predictors:

- *Student background and schools' social context (Models 1 and 3):*
  - Students' gender (one = female, zero = male)
  - Students' use of the test language at home (one = speaks the test language at home most of the time, zero = speaks another language at home most of the time)
  - Students' expected level of education (one = expects a university degree, zero = other students)
  - Students' interest in political and social issues (one = quite or very interested in political and social issues, zero = other students)
  - Students' socioeconomic background (nationally standardized with averages of zero and standard deviations of one; see Chap. 4 for details)
  - Schools' average socioeconomic background (aggregated nationally standardized scores).
- *Civic learning outside school (Models 2 and 3):*
  - Students' discussion of political and social issues (item response theory (IRT) scale, nationally standardized scores with averages of zero and standard deviations of one; items and scale are described in more detail in Chap. 4)
  - Students' use of media information (one = use at least weekly either television news, newspaper, or the internet to inform themselves about political and social issues, zero = other students).
- *Civic learning at school (Models 2 and 3):*
  - Students' learning about civic issues at school (IRT scale, nationally standardized scores with averages of zero and standard deviations of one; see Chap. 6 for details)
  - Students' perceptions of an open classroom climate for discussion (IRT scale, nationally standardized scores with averages of zero and standard deviations of one; see Chap. 6 for details)
  - Students' participation in voting at school (one = students who reported to have voted for class representative or school parliament/council, zero = other students; see more results for this item in Chap. 4).
- *School learning context (Models 2 and 3):*
  - The proportion of students at school who reported to have voted for class representative or school parliament/council (proportions multiplied by 10)
  - Schools' average student perceptions of an open classroom climate for discussion (aggregated nationally standardized scores)
  - Schools' average score of students' reporting on learning about civic issues at school (aggregated nationally standardized scores).

For these analyses we used plausible values as estimators of civic knowledge as the dependent variable. We used a similar approach that was used in the multilevel analyses of civic knowledge reported in ICCS 2009 and 2016. Data from Malta collected in ICCS 2022 were not included in these analyses, because data were available from 29 schools—too few to be analyzed using this type of multilevel modeling approach.

Students' socioeconomic background was a composite index derived from highest parental occupation, highest parental educational attainment, and home literacy (measured as the number of books at home). This index, constructed in a similar way to the corresponding ICCS 2009 and 2016 indices (see Schulz & Friedman, 2011, 2018), was standardized nationally so that within each participating country the scale had an average of zero and a standard deviation of one.

All other questionnaire-based scales were also standardized so that within each country scale scores had an average of zero and a standard deviation of one. The unstandardized regression coefficients therefore represent a change in the dependent variables (in this case civic knowledge test scores, see Chap. 3 for details), with an increase of one national standard deviation in each of the independent variables. Because we took this approach, the coefficients should be interpreted as effect sizes, although there are limitations in terms of their comparability across countries. Scale scores, aggregated at the school level, are in the same metric as the original scales, and coefficients reflect expected changes, with a national (student-level) standard deviation of one. Categorical variables were coded with values of one and zero, so that the regression coefficients would reflect the net effect of the difference between categories. Proportions of students at school with voting experience was used as deciles so that regression coefficients reflect the increase (or decrease) with 10 percentage points.

Given the hierarchical nature of the data as well as our observation of substantial proportions of variance between schools, we carried out multivariate multilevel regression analyses (for an explanation of this type of analysis, see, for example, Raudenbush & Bryk, 2002). We estimated, for each national sample, two-level hierarchical models in which students were nested within schools. While for these first analyses we made used of the SPSS MIXED[3] procedures that does not allow weighting at each of the two levels, final analyses will be conducted with MPlus (Version 7, see Muthén & Muthén, 2012) that allows obtaining estimates after applying sampling weights at the student and school levels. As the ICCS 2022 sampling design typically meant only one classroom was sampled from within each school, it is not possible to separate between-school variation from between-classroom variation (Rutkowski et al., 2010). In our modeling, we treated (as noted above) the students as nested within schools, even in schools where more than one classroom had been sampled and assessed. Details regarding the multilevel modeling presented in this chapter will be provided in the ICCS 2022 technical report (Schulz et al., forthcoming).

During multivariate analyses, proportions of missing data may increase considerably as more variables are included in the model. For the analyses presented in this chapter, we applied a listwise exclusion of missing data. On average across countries, 92% of students were included in the analyses, ranging from 80% to 98%.

We compared estimates of overall variance,[4] between-school, and within-school variation in civic knowledge across the ICCS 2022 countries and benchmarking participants (Table 7.1). The percentages of between-school variance differed considerably across the countries, ranging from 7% in Norway and Slovenia to 52% in the Netherlands; on average, we found 22% of the variance at the school level. On average cross-nationally, Model 1 (containing student background and social context variables as predictors), explained 18% of the within-school variance and 62% of the between-school variance. Model 2 (containing civic learning factors) explained only 7% of the within-school variance and 32% of the between-school variance. For Model 3 (which included all variables), the corresponding estimates of explained variance at student and school level were 22% and 74%, respectively.

When reviewing the proportions of variance found at student level and school level, there are considerable differences across the ICCS 2022 countries in between-school variation and overall explained variance (Table 7.1). This observation is in line with previous comparative multilevel analyses of civic knowledge (see Schulz et al., 2010, 2018).

The unstandardized regression coefficients for student characteristics and social background variables included in Model 1 were compared with those recorded when we included these variables, together with predictors reflecting civic learning contexts, in Model 3 (Table 7.2). We recorded significant[5] positive effects in nearly every country for (female) gender and use of the test language at home. After controlling for other variables in the model, we found that, on average across countries, female students outperformed male students by 16 civic knowledge scale score points (12 points when included in

[3] SPSS = Statistical Package for the Social Sciences; MIXED = linear mixed-effects model.

[4] The overall variance was computed as the sum of within-school and between-school variance. Note, however, that with multilevel modeling, this variance is not necessarily equal to the square of the standard deviation of test scores in a country.

[5] When presenting tests of statistical significance for coefficients in this chapter, we annotate results that were statistically significant at $p < 0.05$.

Table 7.1 Total and explained variance in civic knowledge

Country	Variance estimates (Model 0)				Percent of variance explained by:						Variance within schools / Variance between schools
					Model 1		Model 2		Model 3		
	Total variance	*Within schools*	*Between schools*	Percent between schools	*Within schools*	*Between schools*	*Within schools*	*Between schools*	*Within schools*	*Between schools*	10,000 5,000 0 5,000 10,000
Bulgaria	9140	4737	4402	48	5	60	4	52	8	79	
Chinese Taipei	7365	6632	733	10	20	75	17	28	30	83	
Colombia	7910	5205	2705	34	3	56	8	61	11	83	
Croatia[1]	6603	6034	569	9	22	52	8	31	26	63	
Cyprus	9517	7372	2144	23	19	73	8	55	23	82	
Estonia	8793	7084	1709	19	17	57	4	23	18	64	
France	7784	6614	1170	15	18	87	5	19	21	91	
Italy	7652	6554	1098	14	25	58	9	20	28	60	
Latvia[1]	6867	5216	1650	24	19	53	7	29	22	68	
Lithuania	9287	6991	2296	25	26	74	4	17	28	80	
Netherlands†	8653	4141	4512	52	5	57	3	37	7	63	
Norway (9)[1]	9300	8658	642	7	22	62	8	34	25	72	
Poland	8193	7087	1106	14	23	77	7	39	27	88	
Romania	8785	6059	2726	31	16	26	5	12	19	39	
Serbia	7293	6144	1149	16	19	63	9	23	23	72	
Slovak Republic	9208	5584	3624	39	19	82	6	21	23	84	
Slovenia	7085	6572	512	7	20	43	10	38	25	67	
Spain	7714	6271	1442	19	16	57	7	42	20	82	
Sweden[1]	11565	10027	1538	13	26	71	8	19	28	81	
ICCS 2022 average				22	18	62	7	32	22	74	
Countries not meeting sample participation requirements											
Brazil	11318	6476	4842	43	11	79	4	39	13	84	
Denmark r	10415	9157	1259	12	15	43	7	43	18	55	
German benchmarking participant meeting sample participation requirements											
North Rhine-Westphalia r	10443	6277	4166	40	12	73	6	62	17	85	
German benchmarking participant not meeting sample participation requirements											
Schleswig-Holstein	9936	6946	2990	30	10	68	7	57	14	85	

Notes:

r Data are available for at least 70% but less than 85% of students.

(9) Country deviated from international defined population and surveyed adjacent upper grade.

† Nearly met guidelines for sampling participation rates only after replacement schools were included.

[1] National defined population covers 90% to 95% of national target population.

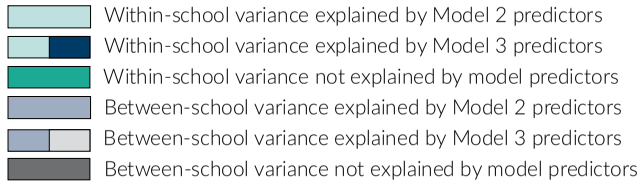


Table 7.2 Student- and school-level results: Background variables

Country	Student characteristics							
	Students' gender (female)		Test language use at home		Expected university degree		Students' interest in political and social issues	
	Model 1	Model 3	Model 1	Model 3	Model 1	Model 3	Model 1	Model 3
Bulgaria	**23.0** (4.4)	**17.9** (4.3)	**19.7** (8.1)	**21.6** (7.4)	**15.1** (5.3)	**14.8** (5.2)	5.3 (5.3)	5.1 (5.0)
Chinese Taipei	**10.7** (4.7)	4.6 (4.4)	**18.2** (5.8)	**18.0** (5.6)	**65.4** (5.3)	**55.1** (4.9)	**12.9** (4.4)	2.9 (4.3)
Colombia	1.4 (4.9)	-0.9 (4.8)	23.3 (15.1)	20.8 (15.9)	**29.5** (5.1)	**27.4** (5.3)	2.6 (5.6)	4.0 (5.8)
Croatia[1]	**15.6** (5.1)	**11.9** (4.8)	26.0 (13.5)	22.6 (13.0)	**56.1** (4.9)	**52.7** (4.8)	**22.2** (4.7)	**17.2** (4.9)
Cyprus	**22.4** (3.2)	**16.9** (3.1)	**21.7** (4.3)	**19.7** (4.5)	**54.1** (3.9)	**49.8** (3.8)	**9.8** (3.8)	7.3 (3.9)
Estonia	**20.6** (3.6)	**18.2** (3.6)	**33.0** (7.9)	**31.6** (8.2)	**40.5** (3.8)	**39.7** (3.7)	**28.5** (3.7)	**25.0** (4.1)
France	**11.0** (3.7)	4.6 (3.8)	**26.5** (4.7)	**24.8** (4.7)	**35.8** (3.3)	**34.8** (3.4)	**16.5** (3.6)	**16.4** (3.7)
Italy	**9.5** (3.5)	**7.4** (3.3)	**28.3** (4.7)	**26.9** (4.5)	**52.4** (4.0)	**48.5** (3.8)	**14.5** (4.1)	**8.9** (4.4)
Latvia[1]	**25.7** (4.0)	**21.1** (3.9)	**38.9** (6.0)	**36.4** (6.4)	**40.0** (3.9)	**38.0** (3.9)	5.7 (4.5)	2.2 (4.7)
Lithuania	**19.0** (4.5)	**15.6** (4.3)	**24.3** (7.1)	**22.5** (7.5)	**69.2** (4.8)	**69.0** (4.9)	**10.5** (4.9)	10.2 (5.6)
Netherlands†	8.2 (5.3)	5.6 (4.9)	**22.1** (7.5)	**22.1** (7.6)	**20.4** (5.0)	**20.1** (5.0)	**17.6** (6.0)	11.6 (6.1)
Norway (9)[1]	**21.4** (3.0)	**15.2** (3.1)	**33.0** (5.1)	**35.1** (5.0)	**41.9** (3.3)	**39.7** (3.1)	**30.3** (3.3)	**25.4** (3.7)
Poland	**7.8** (3.6)	2.4 (3.4)	**54.5** (19.3)	**51.6** (17.9)	**56.0** (4.2)	**53.8** (4.2)	**20.8** (4.0)	**19.1** (4.0)
Romania	**16.4** (3.7)	**11.4** (3.6)	6.0 (12.6)	4.4 (11.6)	**57.5** (4.4)	**54.9** (4.5)	-3.9 (4.7)	-5.3 (4.9)
Serbia	**10.6** (4.4)	4.3 (4.6)	**27.7** (9.6)	**22.8** (10.8)	**55.7** (5.2)	**50.4** (5.1)	7.7 (6.0)	3.0 (6.2)
Slovak Republic	**13.3** (3.4)	**8.9** (3.4)	**44.4** (8.2)	**43.2** (7.6)	**32.2** (3.5)	**30.5** (3.4)	**19.8** (4.1)	**17.6** (4.4)
Slovenia	**28.0** (3.5)	**22.5** (3.4)	**29.1** (5.1)	**28.9** (4.7)	**38.2** (3.5)	**34.5** (3.4)	**16.6** (4.4)	4.6 (4.5)
Spain	**11.5** (3.7)	5.3 (3.7)	**27.2** (5.8)	**22.6** (5.4)	**44.2** (4.7)	**42.5** (4.5)	**10.4** (4.0)	8.0 (4.2)
Sweden[1]	**31.9** (4.0)	**27.5** (3.6)	**62.1** (6.7)	**63.8** (6.4)	**40.2** (4.8)	**35.9** (4.7)	**28.5** (4.4)	**22.5** (4.6)
ICCS 2022 average	**16.2** (0.9)	**11.6** (0.9)	**29.8** (2.1)	**28.4** (2.1)	**44.4** (1.0)	**41.7** (1.0)	**14.5** (1.0)	**10.8** (1.1)
Countries not meeting sample participation requirements								
Brazil	**16.2** (4.0)	**12.1** (4.2)	**49.2** (17.8)	**44.1** (16.8)	**37.5** (4.0)	**35.0** (3.9)	**17.4** (4.1)	**16.1** (4.0)
Denmark r	**27.6** (4.7)	**20.8** (4.8)	**35.4** (8.0)	**35.3** (8.0)	**30.9** (4.8)	**28.2** (4.7)	**30.8** (4.1)	**24.2** (4.6)
German benchmarking participant meeting sample participation requirements								
North Rhine-Westphalia r	-1.9 (4.0)	-5.5 (3.9)	**45.5** (4.3)	**43.2** (4.3)	**14.0** (5.8)	**12.0** (5.6)	**22.8** (4.4)	**23.0** (4.3)
German benchmarking participant not meeting sample participation requirements								
Schleswig-Holstein	13.9 (9.9)	7.4 (9.6)	**39.6** (10.6)	**41.7** (10.9)	17.5 (9.1)	**19.1** (8.0)	**26.4** (8.8)	**20.9** (8.4)

(continued)

Table 7.2 (continued)

Country	Socioeconomic context			
	Socioeconomic background at home		School average of students' socioeconomic background	
	Model 1	Model 3	Model 1	Model 3
Bulgaria	**7.6** (2.7)	**7.4** (2.5)	**54.4** (10.2)	**40.2** (7.3)
Chinese Taipei	**12.0** (2.5)	**9.6** (2.3)	**16.2** (5.0)	**17.7** (4.2)
Colombia	**5.0** (2.4)	**5.6** (2.1)	**44.0** (10.6)	**32.9** (8.0)
Croatia[1]	**13.9** (2.7)	**13.5** (2.6)	-0.7 (5.2)	-2.2 (5.0)
Cyprus	**20.7** (1.9)	**19.0** (1.8)	**58.3** (6.4)	**44.0** (7.3)
Estonia	**17.5** (2.2)	**17.2** (2.2)	**25.7** (6.2)	**22.3** (5.8)
France	**22.9** (2.2)	**22.6** (2.2)	**35.7** (5.5)	**34.1** (5.5)
Italy	**13.9** (3.3)	**13.7** (3.0)	**30.7** (8.3)	**27.9** (7.4)
Latvia[1]	**15.7** (2.1)	**15.7** (2.0)	**15.9** (7.4)	**16.4** (6.3)
Lithuania	**17.7** (2.0)	**17.9** (2.0)	**26.7** (7.3)	**25.2** (6.2)
Netherlands†	**5.9** (2.2)	**5.3** (2.2)	**81.6** (11.8)	**70.7** (18.0)
Norway (9)[1]	**24.5** (1.8)	**22.7** (1.8)	**15.7** (6.1)	9.2 (6.3)
Poland	**19.9** (1.9)	**20.2** (1.9)	**10.4** (5.0)	**10.1** (4.8)
Romania	**11.7** (3.1)	**12.1** (3.1)	9.0 (8.9)	13.2 (8.7)
Serbia	**15.7** (3.2)	**14.8** (3.0)	**14.3** (5.8)	**14.2** (5.8)
Slovak Republic	**26.1** (2.3)	**25.5** (2.4)	**30.8** (7.3)	**32.2** (6.5)
Slovenia	**19.3** (1.8)	**17.8** (1.7)	8.3 (6.1)	**11.9** (5.2)
Spain	**17.2** (2.6)	**16.6** (2.6)	**14.2** (5.4)	**13.8** (4.4)
Sweden[1]	**27.0** (2.9)	**26.1** (2.9)	**23.1** (6.0)	**20.4** (6.0)
ICCS 2022 average	**16.5** (0.6)	**16.0** (0.5)	**27.1** (1.7)	**23.9** (1.7)
Countries not meeting sample participation requirements				
Brazil	**14.6** (2.0)	**14.4** (2.0)	**61.7** (5.0)	**53.3** (5.1)
Denmark r	**21.2** (2.3)	**20.1** (2.2)	16.4 (10.7)	5.6 (11.2)
German benchmarking participant meeting sample participation requirements				
North Rhine-Westphalia r	**15.2** (2.4)	**14.9** (2.3)	**69.7** (9.3)	**40.7** (8.9)
German benchmarking participant not meeting sample participation requirements				
Schleswig-Holstein	**14.2** (3.3)	**12.1** (3.1)	**63.3** (10.0)	**44.4** (9.2)

Notes:
Statistically significant coefficients and explained variances are displayed in **bold.**
r Data are available for at least 70% but less than 85% of students.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Model 3 with the variables related to civic learning), while students speaking the test language at home achieved scores 30 scale score points higher than the scores of students who spoke another language at home (28 points in Model 3).

In all countries, students expecting to attain a university degree had significantly higher levels of civic knowledge than those who did not expect to attain a university degree. On average, the score point difference between the two categories was 44 civic knowledge scale score points—a difference that was only slightly higher than the difference in Model 3 of 42 points. In more than half of the ICCS 2022 countries, students' interest in political or social issues was significantly positively associated with civic knowledge, with a score point difference of 15 civic knowledge scale score points between those who were quite or very interested and those who were not at all or not very interested. However, after controlling for other civic learning factors included in Model 3, we observed a somewhat lower difference of 11 scale score points.

Students' socioeconomic background was positively associated with civic knowledge in all countries, and a change of one (national) standard deviation corresponded with an increase of 17 civic knowledge scale score points, which was of a similar size (16 scale score points) in Model 3. The socioeconomic context of schools, computed as the composite score for students aggregated at the school level, was positively associated with civic knowledge in all except three countries (Croatia, Romania, and Slovenia). The average net effect was 27 civic knowledge scale score points per (national student-level) standard deviation. After we controlled for civic learning factors, we recorded a slightly lower average effect of 24 scale score points with significant differences between the higher and lower socioeconomic groups in all countries except Croatia and Romania. The largest regression coefficients (of 50 scale score points or more, equivalent to half an international standard deviation) recorded were for Bulgaria, Cyprus, the Netherlands, and the German benchmarking participant North Rhine-Westphalia, all of which also had comparatively high estimates of between-school variance.

In view of the disruptions of education during the COVID-19 pandemic in many countries, there may have been differential effects of home background on continued student learning, with students from families with higher socioeconomic background less affected by school closures, restrictions of regular attendance, and/or distant learning. Therefore, it is of interest to note that the effect of socioeconomic background on students' civic knowledge in ICCS 2022 was similar to that observed with data from ICCS 2016. Comparing the average net effects for Model 1 using data from 12 countries included in both analyses (which included the same variables across both international reports), we found that the student-level effects were 15 civic knowledge scale score points in 2022 compared to 14 score points in 2016, while the school-level effect was estimated as 28 scale score points in 2022 and 27 in 2016 (see ICCS 2016 results in Schulz et al., 2018).

We compared the unstandardized regression coefficients for student-level indicators of civic learning processes with those in Model 2, which included only process variables, and those in Model 3, which controlled for student characteristics and the schools' social context (Table 7.3). Analyses revealed significant positive associations between students' participation in discussion of political or social issues (with peers or parents) and civic knowledge in 11 countries, and significant negative associations in one country—Colombia. On average, a difference of one national standard deviation in the frequency of students' discussion of political or social issues was associated with an increase of almost five civic knowledge scale score points. After controlling for student characteristics and social background, we found that, on average, many of the associations were no longer statistically significant. Significant positive regression coefficients remained in only one country (Slovenia), and Model 3 results also included significant negative coefficients in Colombia and the benchmarking participant North Rhine-Westphalia.

Students' exposure to media information (a dichotomous variable) was significantly and positively associated with civic knowledge in six countries (Chinese Taipei, Italy, Latvia, Romania, Slovenia, and Spain) as well as the German benchmarking participant North Rhine-Westphalia. In five of these countries, the associations remained significant after we controlled for student characteristics and social background (Model 3). In Poland, the Slovak Republic, and Sweden, however, this variable had a significant negative association with civic knowledge after controlling for student characteristics and social background (Model 3).

The variable denoting students' perceptions about having learned about civic issues at school was a positive and significant predictor of civic knowledge in two countries and a negative predictor in eight countries (Croatia, Cyprus, Italy, Lithuania, Norway, Poland, Serbia, and Spain). Generally, we found similar associations after controlling for student characteristics and socioeconomic context.

In line with findings from ICCS 2009 and 2016, all of the ICCS 2022 countries recorded significant associations between students' perceptions of an open classroom climate for discussion of political and social issues and civic knowledge. On average, a change of 14 civic knowledge scale score points (about a seventh of an international standard deviation) was associated with a change in one (national) standard deviation in the open classroom climate scale. The regression coefficients were only slightly smaller (average of 11 score points), and no longer statistically significant in Lithuania, after we controlled for student characteristics and socioeconomic factors (Model 3).

Table 7.3 Student-level results: Factors related to civic learning

Country	Civic learning outside school			
	Discussion of political or social issues		Media information	
	Model 2	Model 3	Model 2	Model 3
Bulgaria	-2.8 (2.4)	-2.9 (2.1)	1.0 (4.8)	-0.8 (4.5)
Chinese Taipei	2.6 (2.1)	0.8 (2.0)	**22.9** (4.3)	**15.0** (4.0)
Colombia	**-7.8** (2.3)	**-9.5** (2.1)	5.5 (5.1)	6.3 (5.0)
Croatia[1]	**7.5** (2.2)	2.5 (2.1)	1.4 (4.1)	0.6 (4.0)
Cyprus	3.4 (1.8)	2.3 (1.6)	-1.7 (3.8)	-2.2 (3.7)
Estonia	**9.7** (2.5)	0.4 (2.4)	7.5 (4.5)	4.1 (4.3)
France	**5.1** (2.0)	-1.4 (1.8)	3.1 (4.6)	-3.5 (4.4)
Italy	**5.9** (1.9)	-0.1 (2.0)	**23.5** (4.2)	**13.8** (4.3)
Latvia[1]	3.7 (2.5)	-0.7 (2.4)	**8.2** (3.5)	1.8 (3.6)
Lithuania	**6.8** (2.0)	-1.4 (1.9)	4.5 (4.2)	2.8 (3.9)
Netherlands†	**4.5** (2.3)	2.7 (2.3)	6.8 (4.1)	4.6 (4.1)
Norway (9)[1]	**7.8** (2.0)	-0.2 (2.0)	3.2 (3.3)	-1.5 (3.1)
Poland	**8.9** (2.4)	0.8 (2.1)	-5.9 (3.9)	**-9.4** (3.8)
Romania	-1.3 (2.7)	-2.4 (2.7)	**12.8** (4.3)	**10.7** (3.9)
Serbia	**6.3** (3.2)	2.4 (3.1)	-3.2 (4.8)	-2.0 (4.3)
Slovak Republic	4.0 (2.1)	-0.5 (2.1)	**-11.3** (4.3)	**-12.4** (4.2)
Slovenia	**8.3** (1.9)	**5.1** (2.0)	**9.6** (3.9)	**9.3** (3.5)
Spain	4.2 (2.5)	1.1 (2.3)	**14.3** (4.2)	**11.2** (3.9)
Sweden[1]	**11.1** (2.6)	2.8 (2.6)	-7.7 (4.4)	**-8.6** (4.1)
ICCS 2022 average	**4.6** (0.5)	0.1 (0.5)	**5.0** (1.0)	**2.1** (0.9)
Countries not meeting sample participation requirements				
Brazil	0.7 (1.6)	**-4.6** (1.5)	**8.1** (4.0)	**8.3** (3.7)
Denmark r	**11.1** (2.1)	1.8 (2.1)	1.8 (4.9)	-2.1 (4.5)
German benchmarking participant meeting sample participation requirements				
North Rhine-Westphalia r	-0.4 (2.2)	**-4.2** (2.1)	**9.3** (4.2)	1.3 (3.7)
German benchmarking participant not meeting sample participation requirements				
Schleswig-Holstein	**10.9** (5.1)	6.4 (4.6)	15.9 (8.1)	5.4 (8.1)

(continued)

Table 7.3 (continued)

Country	Civic learning at school					
	Having learned at school about civic issues		Open classroom climate for discussion of political/social issues		Students' experience with voting at school	
	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3
Bulgaria	-2.6 (1.8)	-2.4 (1.8)	**13.7** (2.1)	**12.1** (2.1)	6.3 (3.4)	3.2 (3.4)
Chinese Taipei	**20.7** (2.5)	**17.1** (2.2)	**7.0** (2.2)	**5.7** (2.0)	**52.8** (6.5)	**43.1** (6.0)
Colombia	-2.2 (1.9)	-3.0 (2.1)	**12.3** (3.0)	**11.9** (3.0)	**45.7** (9.5)	**44.4** (9.8)
Croatia[1]	**-7.4** (2.7)	**-6.3** (2.5)	**19.7** (2.7)	**13.0** (2.3)	**35.6** (8.4)	**31.5** (7.5)
Cyprus	**-9.6** (1.9)	**-9.3** (1.8)	**14.8** (2.1)	**10.4** (2.0)	**50.3** (4.8)	**35.1** (4.3)
Estonia	-1.2 (2.3)	-1.4 (2.2)	**8.9** (2.3)	**8.2** (2.1)	**13.2** (4.0)	6.7 (3.7)
France	-1.9 (1.9)	**-3.4** (1.7)	**15.2** (1.9)	**13.8** (1.7)	**54.5** (8.8)	**44.0** (7.7)
Italy	**-4.7** (1.9)	**-5.5** (2.1)	**19.9** (2.3)	**14.3** (1.8)	-9.7 (5.1)	**-8.9** (4.2)
Latvia[1]	-1.5 (2.1)	-1.8 (1.9)	**17.3** (2.5)	**13.7** (2.6)	6.7 (4.4)	2.1 (4.0)
Lithuania	**-8.5** (2.7)	**-9.1** (2.5)	**5.6** (2.8)	3.2 (2.3)	**34.8** (6.9)	**24.3** (6.6)
Netherlands†	-0.8 (2.8)	-0.4 (2.8)	**8.7** (3.0)	**8.4** (2.8)	6.4 (3.5)	5.7 (3.5)
Norway (9)[1]	**-4.0** (2.0)	-3.4 (1.8)	**20.5** (1.8)	**16.0** (1.7)	**42.8** (4.1)	**30.0** (4.3)
Poland	**-7.0** (2.2)	**-7.1** (2.0)	**19.6** (2.2)	**18.0** (2.0)	**43.6** (8.2)	**29.1** (7.3)
Romania	1.4 (2.4)	0.2 (2.1)	**15.2** (2.4)	**11.6** (2.1)	9.4 (7.4)	5.2 (6.4)
Serbia	**-8.9** (2.8)	**-7.8** (2.8)	**17.4** (3.4)	**12.9** (3.2)	**38.1** (8.1)	**24.6** (7.3)
Slovak Republic	-2.8 (2.6)	-3.0 (2.4)	**15.5** (2.2)	**12.3** (2.0)	**21.4** (6.4)	**13.9** (5.6)
Slovenia	0.7 (1.7)	1.3 (1.6)	**13.9** (1.8)	**10.1** (1.6)	**37.1** (4.4)	**27.3** (4.1)
Spain	**-7.8** (2.6)	**-7.1** (2.4)	**14.2** (2.2)	**11.2** (2.0)	**51.6** (10.2)	**48.7** (10.1)
Sweden[1]	**10.5** (2.8)	**7.8** (2.5)	**9.8** (2.7)	**7.3** (2.1)	**33.8** (7.6)	**20.9** (6.0)
ICCS 2022 average	**-2.0** (0.5)	**-2.3** (0.5)	**14.2** (0.6)	**11.3** (0.5)	**30.2** (1.5)	**22.7** (1.4)
Countries not meeting sample participation requirements						
Brazil	-2.4 (2.2)	-3.1 (2.2)	**15.1** (2.2)	**11.5** (2.0)	**17.0** (5.2)	**12.3** (4.6)
Denmark r	-1.8 (2.4)	-1.6 (2.4)	**20.8** (2.3)	**16.8** (2.3)	**24.2** (5.5)	**18.9** (5.4)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia r	-1.6 (2.3)	-2.2 (2.0)	**9.9** (2.3)	**10.6** (2.2)	**45.4** (5.3)	**39.7** (5.0)
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	**-12.2** (5.2)	**-11.3** (5.1)	9.2 (5.1)	**10.5** (4.8)	**27.6** (11.2)	**24.4** (11.6)

Notes:
Statistically significant coefficients and explained variances are displayed in **bold**.
r Data are available for at least 70% but less than 85% of students.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Students' experience with voting for class representatives or school parliament/council at school was significantly and positively associated with civic knowledge in 14 countries and the benchmarking participant North Rhine-Westphalia. On average, having voting experience was associated with an increase of 30 civic knowledge scale points. When we included student characteristics and socioeconomic background in our modeling (Model 3), we found a significant positive association for this variable in 13 countries and the benchmarking participant North Rhine-Westphalia, while in Italy we recorded a statistically significant negative coefficient. On average, having voting experiences was associated with 23 score points in Model 3.

We then aggregated the student data for the three variables relating to civic learning to the school level (Table 7.4). The aggregated data for each of these variables were used as estimates of the degree to which each of these civic learning activities (derived as student reports on their experiences) was conducted within schools. Based on analyses of Model 2, average perceptions of students' learning of civic issues was a significant positive predictor only in Sweden and the benchmarking participant North Rhine-Westphalia, while the effect was significantly negative in six countries. After controlling for social background variables (Model 3), the effects were negative in four countries and positive in Sweden only.

Average school-level perceptions of open classroom climate were positively associated with civic knowledge in 13 countries and the benchmarking participant North Rhine-Westphalia in Model 2, while in Chinese Taipei there was significant negative effect. The positive associations remained significant in nine countries after we controlled for student characteristics and socioeconomic context (Model 3), and the negative effect in Chinese Taipei also remained significant. The proportions of students at school with voting experience were positively associated with civic knowledge in four countries (France, Norway, the Slovak Republic and Spain) as well as in the benchmarking participant North Rhine-Westphalia. According to Model 3, this variable had statistically significant positive associations in four countries (France, Norway, Poland and Spain) and in the benchmarking participant North Rhine-Westphalia.

The results of the multilevel analyses, with the statistically significant positive and negative effects for each predictor variable, are summarized in Table 7.5. While effects of student-level factors related to civic learning (with the exception of discussions of political and social issues) remained mostly statistically significant after we controlled for background variables, school-level factors related to civic learning tended to have fewer significant effects after we controlled for the associations with the socioeconomic context of schools. However, in Model 3, positive effects of average perceptions of open classroom climate on civic knowledge remained significant in nine out of 13 countries.

7.3 Explaining Variation in Expected Political Participation

In this section, we explore which factors are related to two indicators of students' expected "conventional" political participation as adults: expected electoral participation and expected active political participation. For this cycle, we also gathered more data on students' perceptions of democracy and the political system, some of which we included in these analyses.

According to Verba et al. (1995), there are three broad groups of factors that potentially influence political participation of individuals: (i) resources enabling individuals to participate (such as access to sources of information or civic knowledge); (ii) psychological engagement (such as interest or sense of self-efficacy); and (iii) "recruitment networks" (such as already-present engagement in social movements, church, groups, and political parties), which help to bring individuals into personal contact with politics. Building on Coleman's (1988) concept of social capital, Putnam (1993) placed emphasis on the importance of three components (social trust, social norms, and social networks) that together form a "virtuous cycle" and provide a context for successful cooperation and participation in a society.

For the analysis in this chapter, we focus on two criterion variables that reflect students' expectations to participate in society as voters, and students' expectations to become more actively involved through joining a party or standing as a candidate in a local election (see Chap. 4 for details).

To explain variation, we distinguish between five types of explanatory variables: (i) student background variables (such as gender or home background); (ii) variables related to information sources (also reflecting resources at home or school); (iii) student experience with participation (network-related and located at school or in the wider community); (iv) student perceptions of the political system and its institutions (related to social trust); and (v) variables reflecting students' disposition toward engagement (related to resources, psychological engagement, and social norms) including interest in political/social issues, beliefs in their ability to act, and their knowledge and understanding of civic issues.

Table 7.4 School-level results: Factors related to civic learning

Country	School context for civic learning					
	Student learning of civic issues (aggregate)		Open classroom climate for discussion (aggregate)		Proportion of students who have voted at school (in tenths)	
	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3
Bulgaria	**-90.1** (12.4)	**-42.4** (11.1)	**95.8** (14.1)	**73.3** (13.4)	4.3 (2.5)	-1.4 (2.6)
Chinese Taipei	15.2 (13.1)	6.1 (9.1)	**-29.2** (10.7)	**-26.9** (9.0)	7.1 (4.3)	6.0 (3.6)
Colombia	-34.8 (20.0)	**-30.0** (12.7)	**78.6** (15.7)	**63.9** (11.2)	8.2 (4.6)	-0.2 (4.0)
Croatia[1]	-20.8 (11.2)	-2.2 (11.2)	**27.4** (11.0)	18.1 (12.1)	-1.1 (4.0)	-3.0 (3.4)
Cyprus	**-81.2** (19.2)	**-44.8** (15.9)	**86.4** (17.2)	**51.0** (10.7)	2.2 (6.0)	-4.9 (3.3)
Estonia	-6.3 (10.8)	-6.2 (7.8)	**26.3** (10.9)	15.3 (8.1)	1.9 (1.5)	1.5 (1.1)
France	-15.8 (11.5)	-5.7 (6.8)	-3.1 (9.5)	-4.3 (4.9)	**22.7** (5.8)	**12.8** (3.3)
Italy	**-16.7** (8.1)	-7.4 (7.2)	**20.8** (10.6)	6.4 (7.9)	0.7 (1.2)	0.8 (0.9)
Latvia[1]	-26.6 (16.7)	-3.6 (8.7)	**29.6** (14.3)	**24.1** (8.6)	1.5 (1.8)	0.3 (1.5)
Lithuania	-22.8 (17.5)	-4.0 (9.4)	**47.5** (19.6)	**25.8** (8.1)	-0.8 (7.3)	2.4 (2.9)
Netherlands†	**-46.4** (14.3)	-9.8 (15.5)	**90.6** (22.6)	35.8 (26.8)	1.7 (3.1)	-3.7 (3.5)
Norway (9)[1]	1.6 (11.0)	-10.5 (8.8)	6.0 (10.6)	3.7 (8.9)	**9.9** (2.7)	**7.9** (2.5)
Poland	**-23.7** (10.6)	-1.6 (6.5)	**23.7** (8.7)	6.7 (7.3)	10.9 (8.8)	**12.1** (6.0)
Romania	**-34.7** (13.1)	**-28.3** (10.8)	20.6 (12.9)	**33.5** (11.5)	2.2 (2.3)	-0.1 (2.1)
Serbia	-20.8 (11.3)	-2.3 (9.4)	**29.9** (13.7)	**21.0** (9.3)	-0.7 (3.3)	-0.3 (2.5)
Slovak Republic	4.3 (24.6)	8.1 (11.1)	14.3 (20.1)	10.3 (10.2)	**5.5** (2.6)	-2.4 (1.4)
Slovenia	-3.5 (8.3)	-5.3 (7.3)	**18.9** (7.2)	**20.8** (6.4)	-1.9 (2.0)	-1.3 (2.1)
Spain	-1.1 (11.1)	-4.5 (8.4)	**24.7** (10.5)	**22.8** (7.1)	**17.1** (5.1)	**13.7** (3.3)
Sweden[1]	**27.6** (12.6)	**25.0** (8.3)	-2.9 (13.7)	-4.8 (10.0)	-0.2 (3.7)	0.0 (2.1)
ICCS 2022 average	**-20.9** (3.2)	**-8.9** (2.3)	**31.9** (3.2)	**20.9** (2.5)	**4.8** (1.0)	**2.1** (0.7)
Countries not meeting sample participation requirements						
Brazil	-11.0 (23.7)	-14.9 (17.6)	**78.8** (19.3)	**28.4** (11.5)	3.7 (3.4)	-0.4 (1.5)
Denmark r	8.0 (13.1)	3.7 (11.8)	**28.9** (9.5)	17.4 (10.3)	-1.1 (3.7)	-0.5 (3.8)
German benchmarking participant meeting sample participation requirements						
North Rhine-Westphalia r	**32.0** (10.1)	27.2 (15.7)	**38.0** (12.4)	15.2 (14.3)	**31.9** (4.6)	**16.8** (5.0)
German benchmarking participant not meeting sample participation requirements						
Schleswig-Holstein	**-50.2** (11.2)	-21.8 (12.4)	20.8 (14.9)	-4.1 (15.6)	**25.4** (5.4)	**19.6** (4.3)

Notes:
Statistically significant coefficients and explained variances are displayed in **bold**.
r Data are available for at least 70% but less than 85% of students.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Table 7.5 Summary of statistically significant effects across countries

Predictor variables	Model 1: Number of countries where the predictor had a statistically significant...		Model 2: Number of countries where the predictor had a statistically significant...		Model 3: Number of countries where the predictor had a statistically significant...	
	positive effect	negative effect	positive effect	negative effect	positive effect	negative effect
Students personal and social background						
Gender (female)	17	0			12	0
Test language use at home	16	0			16	0
Expected university education	19	0			19	0
Interest in political or social issues	14	0			8	0
Socioeconomic context						
Socioeconomic home background	19	0			19	0
Average socioeconomic background (aggregate)	16	0			16	0
Civic learning outside school						
Discussion of political or social issues			11	1	1	1
Media information			6	1	5	3
Civic learning at school						
Having learned about civic issues			2	8	2	8
Open classroom climate for discussion			19	0	18	0
Students' experience with voting at school			14	0	13	1
School and community learning context						
Student learning of civic issues (aggregate)			1	6	1	4
Open classroom climate for discussion (aggregate)			13	1	9	1
Proportion of students with voting experience			4	0	4	0

The individual variables that we selected as predictors were as follows:

- *Student background variables:*
  - Students' gender (one = female, zero = male)
  - Students' socioeconomic background (nationally standardized with averages of zero and standard deviations of one; see Chap. 4 for details)
  - Parental interest in political and social issues (one = having at least one parent quite or very interested in political and social issues, zero = other students).
- *Variables related to information sources:*
  - Students' discussion of political and social issues (IRT scale, nationally standardized scores with averages of zero and standard deviations of one; items and scale are described in more detail in Chap. 4)
  - Students' use of media information (one = use at least weekly either television news, newspaper, or the internet to inform themselves about political and social issues, zero = other students)
  - Students' reports on having learned about (i) how to vote as a citizen (for expected electoral participation), or (ii) how to become a candidate in a local election, (one = students who report to have learned to a large or moderate extent, zero = other students; see Chap. 6 for details).
- *Variables related to participation:*
  - Participation in community organizations and groups (IRT scale, nationally standardized scores with averages of zero and standard deviations of one; some of the items included in this scale are described in more detail in Chap. 4)
  - Participation in civic activities at school (IRT scale, nationally standardized scores with averages of zero and standard deviations of one; some of the items included in this scale are described in more detail in Chap. 4)
  - Students' engagement with political or social issues using digital media (IRT scale, nationally standardized scores with averages of zero and standard deviations of one; some of the items included in this scale are described in more detail in Chap. 4).
- *Students' perceptions of the political system and its institutions:*
  - Students' agreement that democracy is the best form of government, (one = agree or strongly agree, zero = other students; see results for this and other items in Chap. 5)
  - Students' satisfaction with the political system (nationally standardized scale scores with averages of zero and standard deviations of one; see Chap. 5 for more details on the scale)
  - Students' trust in civic institutions (IRT scale, nationally standardized scores with averages of zero and standard deviations of one; see Chap. 5 for details on trust in institutions).
- *Variables reflecting students' disposition toward engagement:*
  - Students' interest in political and social issues (one = quite or very interested, zero = not very interested or not at all interested; see Chap. 5)
  - Students' sense of citizenship self-efficacy (IRT scale, nationally standardized scores with averages of zero and standard deviations of one; see Chap. 4 for details)
  - Students' perceptions of the importance of conventional citizenship (IRT scale, nationally standardized scores with averages of zero and standard deviations of one; see Chap. 5 for details)
  - Civic knowledge (nationally standardized scores with averages of zero and standard deviations of one; see Chap. 3 for details).

For these analyses we applied a list-wise exclusion of missing data. Across the participating countries, the average percentage of students in the sample with valid data after list-wise exclusion was 89% for the model explaining students' expected electoral participation (ranging from 75 to 96), and 88% for the model explaining students' expected active political participation (ranging from 75 to 97 percent).

Multiple regression models were estimated using jackknife repeated replication to obtain correct standard errors (see Schulz & Friedman, 2011; Schulz et al., forthcoming). In a regression model, an estimate of the percentage of explained variance can be obtained by multiplying R^2 by 100. Furthermore, in a multiple regression model, the variance in the criterion variable can be explained by the combined effect of more than one predictor or block of predictors. By reviewing the contributions of different predictor blocks, it is possible to estimate how much of the explained variance is attributable uniquely to each of the predictors or blocks of predictors, and how much these predictors or blocks of predictors in combination explain this variance. We carried out this estimation by comparing the variance explanation of five additional regression models (each without one of the five blocks of predictors) with the explanatory power of the overall model that included all predictors in combination.[6]

[6]The differences between each of the comparison models with the full model provide an estimate of the unique variance attributable to each block of variables. The difference between the sum of block variances and the explained variance by all predictors provides an estimate of the common variance attributable to more than one block of variables.

All regression coefficients reflect the net effect of each of the predictor variables after controlling for all other effects in the model. This is important to consider when interpreting the results from these analyses. Readers should also keep in mind that the ICCS scale scores are standardized at the national level. Thus, regression coefficients should be interpreted in terms of effect size, meaning that the coefficients reflect changes in the scores for the two dependent variables (students' expected electoral and active political participation) with changes of one standard deviation in each of the participating countries. Furthermore, considering the size of the regression coefficients, readers should also keep in mind that the coefficients are relative to the metric of the two (equated) questionnaire scales, where 10 represents one international standard deviation for equally weighted countries in ICCS 2009.[7]

We reviewed the explained variation in expected electoral participation, once for the model that included only student background factors and once for the model that included all variables (Table 7.6). Background variables explained, on average, 15% of the variance (ranging from 9% to 23%), while the combined model explained 34% of the variation in the criterion variables on average across the ICCS 2022 countries, with the range extending from 24% to 41% across countries. Student dispositions toward engagement (civic interest, citizenship self-efficacy, beliefs about the importance of conventional citizenship, and civic knowledge) made the largest unique contributions to the explanation of variance in the dependent variable, while a smaller but still sizable proportion of the explained variance was uniquely due to the group of variables reflecting student perceptions of the political system and its institutions.

When reviewing net effects (displayed as unstandardized multiple regression coefficients) for student background, information sources, and participation-related factors (Table 7.7), socioeconomic background had statistically significant positive associations with expectations to participate in elections in 13 countries and in the benchmarking participant North Rhine-Westphalia (an average effect of 0.6 score points). In nine countries and the benchmarking entity North Rhine-Westphalia significant positive effects were recorded for (female) gender as a predictor variable, while in one country the net coefficient was significantly negative (Serbia). On average, the effect was estimated as only 0.3 score points. For parental interest, we found positive significant associations in 10 countries as well as in the benchmarking participant North Rhine-Westphalia, with an average coefficient of almost one score point.

Amongst the predictor variables related to use of information sources, weekly use of media had significant positive associations with expected electoral behavior in more than half of the countries. On average, the effect was estimated as 0.9 score points. Student reports on having learned to a large or moderate extent about how to vote as citizens was positively associated with expectations to vote in 12 countries (with an average coefficient of 0.7 score points). Students' discussion of political/social issues had significant relationships in half of the countries with a relatively small average effect size of 0.4 score points.

In more than half of the countries, students' experience with civic participation at school showed significant positive but relatively small association with expected electoral participation (average coefficient of 0.5 score points), while we observed significant positive relationships for participation in groups or organizations in the community in only a few countries. Additionally, reported participation in digital civic engagement was a significant positive predictor of expected electoral participation in only six countries.

When comparing the estimated effect of students' perceptions of the political system and its institutions on expected electoral participation (Table 7.8), we observed consistent significant positive associations of the dependent variable with students' trust in civic institutions in all countries with an average effect size of 1.3 score points. Students' agreement that democracy was the best form of government had significant positive associations (with an average net effect of 0.8 score points on average) in eight countries, and students' satisfaction with the political system had negative net effects on expected voting in six countries (on average the effect size was −0.3 score points), while there was a significant positive association in Latvia.

Students' dispositions toward engagement had mostly consistent positive relationships with expected electoral participation. Students' citizenship self-efficacy beliefs also had consistent positive associations with the dependent variable (with an average net effect of 1.4 score points). Students' interest in political and social issues was a significant positive predictor of expectation to vote in three quarters of the participating countries (with an average coefficient of 1.4 score points). Civic knowledge had a relatively strong positive effect across all countries (estimated at 2.6, equivalent to a quarter

[7]In the multilevel modeling for civic knowledge presented earlier in this chapter, regression coefficients were reflective of the metric of civic knowledge test scores, where 100 was the international standard deviation for equally weighted countries in ICCS 2009. Therefore, and also due to the differences in modeling approaches (i.e., multilevel versus single-level regression), the size of regression coefficients should not be compared across the different analyses presented in this chapter.

Table 7.6 Explained variance for expected electoral participation

Country	Percentage of variance explained... by student background variables only	Percentage of variance explained... by full model	Proportion of unique variance explained by each set of variables and of variance explained by more than one set of variables (0 10 20 30 40 50)
Bulgaria r	11 (1.4)	31 (2.5)	
Chinese Taipei	13 (1.2)	33 (1.7)	
Colombia r	9 (1.0)	30 (1.8)	
Croatia[1]	17 (1.6)	33 (1.8)	
Cyprus r	13 (1.5)	36 (1.8)	
Estonia	20 (1.9)	40 (1.6)	
France r	14 (1.2)	29 (2.0)	
Italy	18 (1.6)	37 (1.8)	
Latvia[1]	19 (1.6)	38 (1.8)	
Lithuania	19 (2.0)	39 (2.0)	
Malta	10 (1.2)	36 (2.0)	
Netherlands†	21 (2.2)	36 (1.8)	
Norway (9)[1] r	22 (1.3)	37 (1.3)	
Poland	19 (1.5)	37 (1.8)	
Romania	9 (1.8)	27 (2.3)	
Serbia	10 (1.5)	32 (2.0)	
Slovak Republic	13 (1.6)	24 (2.0)	
Slovenia	13 (1.2)	29 (1.7)	
Spain r	16 (1.4)	32 (1.9)	
Sweden[1]	23 (1.5)	41 (1.7)	
ICCS 2022 average	16 (0.3)	34 (0.4)	
Countries not meeting sample participation requirements			
Brazil	14 (1.4)	34 (1.6)	
Denmark r	24 (1.7)	41 (1.8)	
German benchmarking participant meeting sample participation requirements			
North Rhine-Westphalia r	23 (1.5)	40 (1.6)	
German benchmarking participant not meeting sample participation requirements			
Schleswig-Holstein	20 (2.2)	38 (3.0)	

Notes:
r Data are available for at least 70% but less than 85% of students.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Variance uniquely explained by student background variables
Variance uniquely explained information-elated variables
Variance uniquely explained by participation-related variables
Variance explained by student perception variables
Variance explained by disposition for engagement
Variance explained by more than one set of variables

Table 7.7 Multiple regression model for students' expected electoral participation (student background and school-related factors)

Country		Student background variables			Information sources		
		Gender (female)	Socioeconomic background	Parental interest	Discussion about political/social issues	Use of media for information (at least weekly)	Having learned to a large or moderate extent about voting
Bulgaria	r	**0.6** (0.3)	0.1 (0.3)	**1.1** (0.4)	**0.5** (0.2)	0.3 (0.3)	**0.9** (0.4)
Chinese Taipei		0.1 (0.2)	0.1 (0.1)	0.4 (0.3)	**0.6** (0.2)	**1.2** (0.4)	**1.5** (0.5)
Colombia	r	0.0 (0.3)	0.3 (0.2)	**1.2** (0.3)	0.3 (0.2)	**1.4** (0.4)	**1.6** (0.3)
Croatia[1]		0.1 (0.3)	**0.5** (0.2)	**1.6** (0.4)	0.5 (0.3)	**0.7** (0.3)	0.7 (0.4)
Cyprus	r	-0.3 (0.3)	**0.4** (0.2)	**0.8** (0.4)	**0.5** (0.2)	**0.7** (0.3)	0.4 (0.4)
Estonia		-0.4 (0.3)	**0.6** (0.2)	0.6 (0.5)	**0.6** (0.2)	**1.2** (0.4)	0.0 (0.5)
France	r	**1.2** (0.3)	**0.7** (0.2)	0.0 (0.3)	0.2 (0.2)	**1.0** (0.3)	**0.6** (0.3)
Italy		0.4 (0.3)	0.4 (0.2)	0.8 (0.4)	0.3 (0.2)	**1.3** (0.4)	0.2 (0.3)
Latvia[1]		-0.5 (0.4)	**0.8** (0.2)	**1.1** (0.4)	0.3 (0.2)	**1.4** (0.4)	0.5 (0.4)
Lithuania		**0.6** (0.3)	**0.9** (0.2)	**1.0** (0.4)	0.2 (0.2)	**0.9** (0.3)	**0.9** (0.4)
Malta		**0.8** (0.4)	0.2 (0.2)	0.5 (0.3)	**0.5** (0.2)	0.1 (0.5)	0.2 (0.4)
Netherlands†		-0.2 (0.4)	**1.1** (0.2)	1.0 (0.6)	0.3 (0.2)	**1.1** (0.4)	0.3 (0.5)
Norway (9)[1]	r	**2.0** (0.2)	**0.9** (0.1)	0.1 (0.3)	**0.6** (0.2)	**0.7** (0.3)	**0.8** (0.3)
Poland		**0.8** (0.3)	**0.8** (0.2)	0.5 (0.3)	**0.4** (0.1)	0.2 (0.2)	**0.5** (0.2)
Romania		0.3 (0.4)	0.2 (0.2)	0.8 (0.5)	0.0 (0.3)	0.5 (0.4)	**1.2** (0.5)
Serbia		**-0.9** (0.4)	**0.8** (0.2)	**1.8** (0.6)	**0.6** (0.2)	0.6 (0.4)	**0.9** (0.4)
Slovak Republic		-0.7 (0.4)	0.4 (0.3)	**1.2** (0.5)	0.3 (0.3)	0.3 (0.4)	**0.9** (0.4)
Slovenia		**0.8** (0.3)	**0.5** (0.2)	0.5 (0.4)	0.4 (0.2)	**1.2** (0.4)	**1.3** (0.4)
Spain	r	**0.8** (0.3)	**1.0** (0.2)	**1.3** (0.4)	**0.6** (0.2)	**0.9** (0.4)	**0.8** (0.4)
Sweden[1]		**1.1** (0.3)	**0.6** (0.2)	**1.1** (0.4)	**0.4** (0.2)	**0.6** (0.3)	-0.2 (0.3)
ICCS 2022 average		**0.3** (0.1)	**0.6** (0.0)	**0.9** (0.1)	**0.4** (0.0)	**0.8** (0.1)	**0.7** (0.1)
Countries not meeting sample participation requirements							
Brazil	r	0.2 (0.3)	-0.1 (0.2)	0.5 (0.3)	**0.4** (0.2)	0.3 (0.3)	0.5 (0.3)
Denmark	r	**1.4** (0.3)	**0.5** (0.2)	**1.2** (0.3)	**0.6** (0.2)	0.4 (0.3)	**0.7** (0.3)
German benchmarking participant meeting sample participation requirements							
North Rhine-Westphalia	r	**0.9** (0.4)	**0.8** (0.2)	**0.8** (0.4)	0.2 (0.2)	**0.8** (0.4)	0.6 (0.4)
German benchmarking participant not meeting sample participation requirements							
Schleswig-Holstein		-0.3 (0.5)	**0.8** (0.3)	1.1 (0.8)	0.6 (0.3)	1.0 (0.6)	**2.1** (0.5)

(continued)

Table 7.7 (continued)

Country		Experience with participation		
		Participation in groups/organizations in the community	Participatatio n in civic activities at school	Civic engagement with digital media
Bulgaria	r	-0.1 (0.2)	0.4 (0.3)	0.1 (0.2)
Chinese Taipei		0.1 (0.1)	**0.6** (0.1)	0.2 (0.2)
Colombia	r	-0.1 (0.2)	**0.5** (0.2)	0.1 (0.2)
Croatia[1]		0.1 (0.2)	**0.5** (0.2)	0.4 (0.2)
Cyprus	r	0.3 (0.2)	**1.0** (0.3)	**0.5** (0.2)
Estonia		-0.2 (0.2)	**0.8** (0.2)	0.2 (0.2)
France	r	0.3 (0.2)	0.3 (0.2)	**0.4** (0.2)
Italy		0.1 (0.2)	0.2 (0.2)	0.0 (0.2)
Latvia[1]		0.0 (0.2)	**1.1** (0.2)	**0.6** (0.2)
Lithuania		0.3 (0.2)	**0.4** (0.1)	0.2 (0.2)
Malta		**0.5** (0.2)	**0.8** (0.2)	**0.6** (0.2)
Netherlands†		**0.4** (0.2)	0.2 (0.2)	**0.5** (0.2)
Norway (9)[1]	r	0.1 (0.1)	**0.6** (0.2)	0.0 (0.1)
Poland		-0.1 (0.1)	0.2 (0.2)	0.2 (0.1)
Romania		**0.6** (0.3)	-0.1 (0.3)	0.1 (0.3)
Serbia		0.2 (0.3)	0.3 (0.2)	-0.1 (0.3)
Slovak Republic		0.4 (0.2)	0.3 (0.3)	0.2 (0.3)
Slovenia		-0.3 (0.2)	**0.7** (0.2)	0.2 (0.2)
Spain	r	-0.1 (0.2)	**0.8** (0.2)	0.3 (0.2)
Sweden[1]		0.0 (0.1)	**0.6** (0.2)	**0.3** (0.2)
ICCS 2022 average		**0.1** (0.0)	**0.5** (0.0)	**0.2** (0.0)
Countries not meeting sample participation requirements				
Brazil	r	0.1 (0.2)	0.2 (0.1)	**0.5** (0.2)
Denmark	r	-0.1 (0.1)	0.2 (0.2)	0.2 (0.1)
German benchmarking participant meeting sample participation requirements				
North Rhine-Westphalia	r	**1.0** (0.2)	0.1 (0.2)	0.1 (0.2)
German benchmarking participant not meeting sample participation requirements				
Schleswig-Holstein		0.4 (0.2)	0.2 (0.3)	0.2 (0.3)

Notes:
Statistically significant coefficients and explained variances are displayed in **bold**.
r Data are available for at least 70% but less than 85% of students.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Table 7.8 Multiple regression model for students' expected electoral participation (student background and school-related factors)

Country		Perceptions of political system			Disposition toward engagement			
		Agreement that democracy is best form of government	Satisfaction with political system	Trust in institutions	Interest in political/ social issue	Citizenship self-efficacy	Beliefs in importance of conventional citizenship	Civic knowledge
Bulgaria	r	0.9 (0.5)	-0.1 (0.3)	**1.3** (0.3)	**2.5** (0.4)	**1.4** (0.3)	**2.3** (0.3)	**3.0** (0.3)
Chinese Taipei		**1.3** (0.5)	-0.2 (0.2)	**1.0** (0.2)	**1.7** (0.3)	**1.0** (0.2)	**2.3** (0.2)	**2.4** (0.2)
Colombia	r	0.7 (0.4)	-0.2 (0.2)	**0.9** (0.2)	**1.9** (0.4)	**1.9** (0.2)	**2.2** (0.2)	**2.7** (0.2)
Croatia[1]		**0.8** (0.4)	-0.3 (0.2)	**0.8** (0.2)	0.8 (0.4)	**0.9** (0.2)	**2.7** (0.2)	**2.6** (0.2)
Cyprus	r	0.4 (0.4)	0.3 (0.3)	**1.8** (0.3)	**1.5** (0.5)	**1.8** (0.3)	**1.7** (0.2)	**2.6** (0.2)
Estonia		0.6 (0.4)	-0.4 (0.2)	**1.6** (0.2)	**1.3** (0.6)	**1.1** (0.2)	**2.5** (0.2)	**2.4** (0.2)
France	r	**1.2** (0.5)	-0.2 (0.2)	**1.3** (0.2)	0.6 (0.3)	**0.8** (0.2)	**2.1** (0.2)	**2.5** (0.2)
Italy		-0.3 (0.5)	0.0 (0.2)	**1.6** (0.2)	0.6 (0.4)	**1.3** (0.2)	**2.5** (0.2)	**2.9** (0.2)
Latvia[1]		0.5 (0.4)	**0.4** (0.2)	**1.0** (0.2)	**1.7** (0.5)	**1.3** (0.2)	**2.3** (0.2)	**3.1** (0.2)
Lithuania		0.4 (0.4)	**-0.4** (0.2)	**1.9** (0.2)	**1.5** (0.4)	**1.3** (0.2)	**1.8** (0.1)	**2.7** (0.2)
Malta		0.6 (0.6)	0.0 (0.2)	**1.5** (0.2)	**2.4** (0.5)	**2.0** (0.4)	**2.1** (0.3)	**2.2** (0.3)
Netherlands†		0.3 (0.6)	-0.1 (0.3)	**1.5** (0.3)	0.8 (0.5)	**1.4** (0.3)	**1.8** (0.2)	**3.1** (0.3)
Norway (9)[1]	r	**2.4** (0.6)	0.0 (0.1)	**1.7** (0.2)	**1.4** (0.3)	**1.0** (0.2)	**1.2** (0.2)	**2.7** (0.2)
Poland		**0.7** (0.3)	**-0.7** (0.2)	**1.0** (0.1)	**1.1** (0.3)	**1.1** (0.2)	**2.4** (0.2)	**2.2** (0.2)
Romania		**1.6** (0.7)	**-0.9** (0.4)	**1.1** (0.3)	-0.5 (0.4)	**1.5** (0.3)	**2.2** (0.2)	**2.2** (0.3)
Serbia		**1.9** (0.4)	**-1.1** (0.3)	**1.5** (0.3)	**2.4** (0.7)	**2.0** (0.3)	**3.0** (0.3)	**2.2** (0.3)
Slovak Republic		**1.3** (0.4)	**-0.6** (0.3)	**0.8** (0.3)	**1.4** (0.5)	**1.9** (0.3)	**1.3** (0.2)	**3.0** (0.3)
Slovenia		0.3 (0.4)	-0.2 (0.2)	**1.8** (0.2)	**1.2** (0.4)	**1.3** (0.2)	**2.0** (0.2)	**2.6** (0.2)
Spain	r	0.8 (0.4)	**-0.5** (0.2)	**1.4** (0.2)	**1.5** (0.4)	**1.0** (0.2)	**2.0** (0.2)	**2.9** (0.2)
Sweden[1]		0.3 (0.5)	-0.2 (0.2)	**1.1** (0.2)	**1.7** (0.4)	**1.6** (0.2)	**1.7** (0.2)	**3.0** (0.2)
ICCS 2022 average		**0.8** (0.1)	**-0.3** (0.1)	**1.3** (0.1)	**1.4** (0.1)	**1.4** (0.1)	**2.1** (0.0)	**2.6** (0.0)
Countries not meeting sample participation requirements								
Brazil	r	**1.3** (0.3)	-0.1 (0.2)	**1.0** (0.2)	**2.0** (0.3)	**1.8** (0.2)	**1.9** (0.2)	**3.2** (0.2)
Denmark	r	**2.0** (0.5)	-0.3 (0.2)	**1.5** (0.2)	**1.4** (0.4)	**1.1** (0.2)	**1.2** (0.2)	**2.3** (0.2)
German benchmarking participant meeting sample participation requirements								
North Rhine-Westphalia	r	0.7 (0.5)	-0.3 (0.3)	**1.8** (0.2)	**1.8** (0.4)	**1.6** (0.2)	**1.4** (0.2)	**3.3** (0.3)
German benchmarking participant not meeting sample participation requirements								
Schleswig-Holstein		0.5 (1.2)	-0.4 (0.3)	**1.5** (0.3)	**1.7** (0.5)	**1.6** (0.3)	**1.2** (0.3)	**2.9** (0.3)

Notes:
Statistically significant coefficients and explained variances are displayed in **bold**.
r Data are available for at least 70% but less than 85% of students.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

of an international standard deviation). Beliefs in the importance of conventional citizenship behavior was also a consistent positive predictor with an average net effect of 2.1 score points (about a fifth of an international standard deviation).

In summary, variables related to dispositions and student perceptions (here primarily trust in civic institutions) were the predictors most consistently related to students' expected electoral participation, while background, information source, and participation-related variables were less consistently related to this criterion variable in a combined model.

When reviewing the percentages of variance in students' expected active political participation explained by student background factors alone and by the combined model, we observed that student background factors explained, on average, 5% of the variance (ranging from 2% to 10%), while the combined model explained 25% of the variation in the criterion variables on average across the ICCS 2022 countries, with the range extending from 18% to 34% across countries (Table 7.9). In most countries almost half of the explained variance could be attributed to more than one group of predictors. As for expected electoral participation, dispositions toward civic engagement made the largest unique contribution to the variance explanation, while student perceptions of the political system and its institutions made smaller but still sizable unique contributions.

When reviewing the effects of student background variables on expected active political participation (Table 7.10), female gender had significant negative associations in half of the countries (0.8 scale score points on average), while we found no consistent relationships with students' socioeconomic background and parental interest in political and social issues. Among the variables related to information sources, only student reports on having learned about how to become a candidate in a local election had significant positive associations in almost half of the countries (with an average net coefficient of 0.9 scale score points), while there were no consistent relationships with students' discussions of political/social issues and weekly use of media for information.

Among the predictors related to students' experience of participation, civic engagement with digital media had consistent positive and statistically significant associations in all countries with an average net coefficient of 0.7 scale score points. Past or current participation in groups or organizations in the community was recorded as a significant positive predictor in three quarters of participating countries (with an average net effect of 0.6 scale score points), while for experience of civic engagement at school we found significant positive associations in half of the countries (average coefficient of 0.4).

Among the variables reflecting perceptions of the political system (Table 7.11), students' trust in civic institutions had significant positive associations with expected active political participation in most countries (on average it had an effect of 0.9 scale score points), while for agreement with democracy as the best form of government we observed negative associations in just three countries and no significant relationships in all other countries. After controlling for all other variables in the model, in half of the countries students who expressed higher levels of satisfaction with their political system were significantly more likely to expect active political participation in the future (average net effect of 0.4 scale score points).

Students' citizenship self-efficacy was recorded as the most consistent and strongest positive predictor of their expectations to become politically active in the future with an average net effect estimated at 2.2 scale score points. Further, students' beliefs in the importance of conventional citizenship behaviors (average net effect of 1.6) and their interest in political/social issues (average coefficient of 1.5) had significant positive associations with the dependent variable across countries. However, for civic knowledge we observed statistically significant negative relationships with expected active political participation across countries with an average net effect of −1.4 scale score points.

Results of the multiple regression analyses are summarized by the ICCS 2022 average regression coefficient, with its standard error, for each predictor and dependent variable (Table 7.12). In addition, we developed a symbol to indicate whether there were statistically significant positive associations in more than half of the countries (▲), whether there were significant negative associations in more than half of the countries (▼), or whether there we no consistent or significant positive or negative association in fewer than half of the countries (▬).

Female gender tended to have negative associations with expected active political participation in fewer than half of the countries, while socioeconomic background had significant positive associations with expected electoral behavior in most ICCS 2022 countries (Table 7.12). In this model, parental interest had no consistent positive associations with either of the two dependent variables.

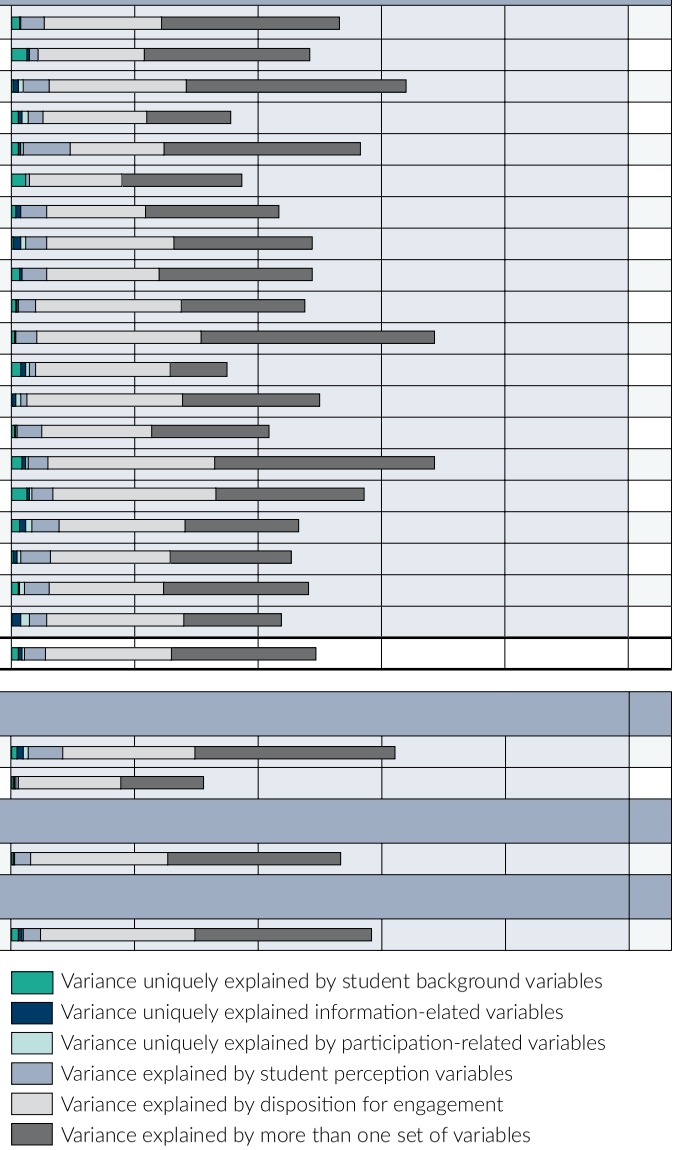
Student reports on information sources had more positive associations with expected electoral behavior than with expected active engagement. Reports of having learned about voting or becoming a local candidate at school tended to have positive associations with expected electoral and active political participation, respectively, but we observed these in less than a half of the countries.

Among the participation-related variables, experience with community participation and engagement with digital media showed more consistent associations with expected active political participation, while civic engagement at school had positive associations but in less than half of the countries.

Among perceptions of the political system and its institutions, trust in civic institutions was the most consistent predictor variable, while satisfaction with the political system tended to have positive associations with expected active engagement but

Table 7.9 Explained variance for expected active political participation

Country	Percentage of variance explained... by student background variables only	Percentage of variance explained... by full model	Proportion of unique variance explained by each set of variables and of variance explained by more than one set of variables
Bulgaria r	9 (1.3)	26 (2.2)	
Chinese Taipei	5 (0.9)	24 (1.3)	
Colombia r	10 (1.1)	32 (1.6)	
Croatia[1]	2 (0.5)	18 (1.7)	
Cyprus r	4 (0.7)	28 (1.6)	
Estonia	2 (0.8)	19 (1.7)	
France r	2 (0.6)	22 (1.4)	
Italy	4 (0.9)	24 (1.8)	
Latvia[1]	3 (0.8)	24 (2.0)	
Lithuania	5 (1.0)	24 (1.8)	
Malta	5 (1.0)	34 (1.5)	
Netherlands†	3 (0.9)	18 (1.8)	
Norway (9)[1] r	3 (0.5)	25 (1.3)	
Poland	2 (0.6)	21 (1.6)	
Romania	9 (1.6)	34 (3.3)	
Serbia	5 (1.0)	28 (2.0)	
Slovak Republic	6 (1.4)	23 (2.0)	
Slovenia	4 (0.7)	23 (1.6)	
Spain	4 (0.8)	24 (1.9)	
Sweden[1]	3 (0.6)	22 (1.9)	
ICCS 2022 average	5 (0.2)	25 (0.4)	
Countries not meeting sample participation requirements			
Brazil r	11 (1.2)	31 (1.9)	
Denmark r	1 (0.3)	16 (1.5)	
German benchmarking participant meeting sample participation requirements			
North Rhine-Westphalia r	4 (0.9)	26 (1.5)	
German benchmarking participant not meeting sample participation requirements			
Schleswig-Holstein	6 (1.3)	29 (1.9)	



Notes:
Statistically signficant coefficents and explained variances are displayed in **bold**.
r Data are available for at least 70% but less than 85% of students.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Table 7.10 Multiple regression model for students' expected active political participation (student background and school-related factors)

Country		Student background variables			Information sources		
		Gender (female)	Socioeconomic background	Parental interest	Discussion about political/social issues	At least weekly use of media for information	Having learned about becoming a local candidate
Bulgaria	r	**-1.7** (0.4)	-0.5 **(0.3)**	-0.1 (0.6)	-0.1 (0.2)	**-0.7** (0.4)	1.0 (0.5)
Chinese Taipei		**-2.1** (0.3)	0.2 (0.2)	-0.1 (0.4)	-0.1 (0.2)	**-0.9** (0.4)	0.3 (0.4)
Colombia	r	0.4 (0.4)	-0.1 (0.2)	0.1 (0.3)	0.0 (0.2)	0.7 (0.4)	**1.1** (0.4)
Croatia[1]		**-1.2** (0.4)	0.1 (0.2)	0.7 (0.5)	0.1 (0.3)	-0.3 (0.4)	**1.4** (0.5)
Cyprus	r	**-1.0** (0.4)	0.4 (0.2)	**1.1** (0.4)	0.1 (0.2)	-0.4 (0.5)	**0.9** (0.4)
Estonia		**-1.9** (0.4)	0.1 (0.2)	-0.3 (0.4)	0.1 (0.3)	-0.2 (0.4)	-0.4 (0.6)
France	r	0.2 (0.3)	**0.4** (0.2)	0.1 (0.4)	**0.4** (0.2)	-0.5 (0.3)	0.8 (0.4)
Italy		0.2 (0.3)	0.1 (0.2)	0.5 (0.5)	0.2 (0.2)	0.0 (0.4)	**1.8** (0.5)
Latvia[1]		**-1.4** (0.4)	0.1 (0.2)	0.4 (0.5)	0.1 (0.3)	0.7 (0.4)	0.8 (0.5)
Lithuania		**-1.0** (0.3)	0.2 (0.2)	-0.5 (0.4)	0.0 (0.2)	-0.1 (0.3)	**0.9** (0.4)
Malta		**-0.6** (0.3)	0.1 (0.2)	0.1 (0.5)	0.1 (0.2)	-0.3 (0.4)	0.5 (0.5)
Netherlands†		-0.6 (0.4)	**0.7** (0.2)	-0.6 (0.5)	0.3 (0.2)	-0.2 (0.4)	0.8 (0.7)
Norway (9)[1]	r	0.0 (0.3)	0.1 (0.2)	0.3 (0.4)	0.4 (0.2)	-0.1 (0.3)	**1.1** (0.3)
Poland		-0.4 (0.3)	-0.2 (0.2)	-0.4 (0.3)	0.1 (0.2)	0.1 (0.3)	0.3 (0.3)
Romania		-0.4 (0.4)	**-1.0** (0.2)	0.3 (0.6)	-0.2 (0.2)	0.4 (0.6)	1.1 (0.8)
Serbia		**-2.5** (0.5)	-0.1 (0.2)	-0.7 (0.7)	0.1 (0.3)	0.7 (0.4)	1.2 (0.6)
Slovak Republic		**-1.1** (0.4)	0.2 (0.3)	0.0 (0.6)	**0.5** (0.2)	-0.7 (0.4)	0.4 (0.4)
Slovenia		-0.3 (0.4)	0.1 (0.2)	0.2 (0.4)	0.4 (0.2)	0.0 (0.3)	**0.7** (0.3)
Spain		-0.6 (0.3)	**0.6** (0.2)	0.6 (0.4)	0.3 (0.2)	-0.4 (0.4)	0.8 (0.5)
Sweden[1]		0.3 (0.3)	0.2 (0.2)	0.0 (0.3)	-0.2 (0.3)	0.1 (0.3)	**1.8** (0.5)
ICCS 2022 average		**-0.8** (0.1)	0.1 (0.0)	0.1 (0.1)	**0.1** (0.1)	-0.1 (0.1)	**0.9** (0.1)
Countries not meeting sample participation requirements							
Brazil	r	**-1.0** (0.4)	-0.2 (0.2)	**0.8** (0.3)	0.1 (0.3)	-0.2 (0.4)	**1.5** (0.4)
Denmark	r	-0.1 (0.3)	-0.2 (0.2)	-0.3 (0.3)	-0.1 (0.2)	0.2 (0.3)	0.7 (0.4)
German benchmarking participant meeting sample participation requirements							
North Rhine-Westphalia	r	0.2 (0.4)	0.3 (0.2)	-0.2 (0.4)	0.1 (0.3)	-0.2 (0.3)	0.6 (0.4)
German benchmarking participant not meeting sample participation requirements							
Schleswig-Holstein		0.0 (0.5)	**0.6** (0.2)	0.6 (0.7)	**0.5** (0.3)	-0.3 (0.4)	0.4 (0.6)

(continued)

Table 7.10 (continued)

Country		Experience with participation		
		Participation in groups/organizations in the community	Participatation in civic activities at school	Civic engagement with digitial media
Bulgaria	r	0.0 (0.3)	**0.8** (0.3)	**0.6** (0.3)
Chinese Taipei		**0.5** (0.1)	0.2 (0.2)	**1.2** (0.2)
Colombia	r	**0.5** (0.2)	**0.5** (0.2)	**0.7** (0.2)
Croatia[1]		0.4 (0.2)	0.4 (0.3)	**0.7** (0.2)
Cyprus	r	**0.9** (0.3)	0.1 (0.3)	**0.9** (0.2)
Estonia		**0.8** (0.2)	**0.9** (0.2)	**0.5** (0.2)
France	r	**0.7** (0.2)	0.2 (0.2)	**0.5** (0.2)
Italy		**0.7** (0.2)	0.0 (0.2)	**0.6** (0.2)
Latvia[1]		**0.6** (0.2)	**0.5** (0.2)	**0.8** (0.2)
Lithuania		**0.8** (0.2)	0.2 (0.2)	**0.5** (0.2)
Malta		**0.7** (0.3)	**0.7** (0.2)	**0.8** (0.2)
Netherlands†		0.3 (0.3)	**0.5** (0.2)	**0.5** (0.2)
Norway (9)[1]	r	**0.9** (0.2)	-0.1 (0.2)	**0.8** (0.2)
Poland		**0.5** (0.2)	**0.4** (0.2)	**0.5** (0.2)
Romania		**0.9** (0.2)	0.4 (0.2)	**0.7** (0.3)
Serbia		0.4 (0.2)	-0.3 (0.3)	**0.7** (0.3)
Slovak Republic		**0.5** (0.2)	-0.1 (0.2)	**0.7** (0.2)
Slovenia		0.2 (0.2)	**0.6** (0.2)	**0.5** (0.2)
Spain		**0.7** (0.2)	**1.0** (0.2)	**0.5** (0.2)
Sweden[1]		**0.7** (0.2)	**0.6** (0.2)	**0.7** (0.3)
ICCS 2022 average		**0.6** (0.0)	**0.4** (0.0)	**0.7** (0.0)
Countries not meeting sample participation requirements				
Brazil	r	0.3 (0.2)	0.2 (0.2)	**0.7** (0.3)
Denmark	r	**0.5** (0.2)	0.0 (0.2)	**0.6** (0.2)
German benchmarking participant meeting sample participation requirements				
North Rhine-Westphalia	r	**1.2** (0.2)	0.3 (0.2)	**0.5** (0.2)
German benchmarking participant not meeting sample participation requirements				
Schleswig-Holstein		**1.1** (0.2)	0.3 (0.2)	0.1 (0.2)

Notes:
Statistically significant coefficients and explained variances are displayed in **bold**.
r Data are available for at least 70% but less than 85% of students.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Table 7.11 Multiple regression model for students' expected active political participation (student background and school-related factors)

Country		Perceptions of political system			Disposition toward engagement			
		Agreement that democracy is best form of government	Satisfaction with political system	Trust in institutions	Interest in political/ social issue	Citizenship self-efficacy	Beliefs in importance of conventional citizenship	Civic knowledge
Bulgaria	r	-0.1 (0.5)	**1.1** (0.3)	**1.0** (0.3)	**1.7** (0.5)	**2.4** (0.3)	**1.5** (0.3)	**-2.4** (0.3)
Chinese Taipei		0.6 (0.5)	0.0 (0.2)	**1.1** (0.2)	**1.2** (0.3)	**2.2** (0.2)	**1.7** (0.2)	**-1.4** (0.2)
Colombia	r	0.7 (0.4)	0.3 (0.2)	**1.3** (0.2)	**1.4** (0.4)	**2.8** (0.2)	**1.4** (0.2)	**-2.3** (0.2)
Croatia[1]		-0.1 (0.5)	**0.5** (0.2)	0.4 (0.3)	**1.9** (0.5)	**1.3** (0.2)	**2.1** (0.3)	**-0.8** (0.3)
Cyprus	r	0.1 (0.4)	**0.9** (0.2)	**1.7** (0.3)	**1.1** (0.4)	**2.5** (0.3)	**1.4** (0.2)	**-1.3** (0.3)
Estonia		-0.9 (0.5)	**0.5** (0.2)	0.0 (0.2)	**1.4** (0.5)	**1.7** (0.2)	**1.7** (0.2)	**-0.9** (0.2)
France	r	-0.1 (0.5)	-0.1 (0.2)	**1.5** (0.2)	**1.3** (0.3)	**2.0** (0.2)	**1.8** (0.2)	**-0.4** (0.2)
Italy		-0.2 (0.6)	0.5 (0.3)	**0.7** (0.2)	**1.1** (0.4)	**1.9** (0.2)	**1.9** (0.2)	-0.2 (0.2)
Latvia[1]		**-0.8** (0.4)	**1.0** (0.2)	**0.9** (0.3)	**1.0** (0.5)	**2.3** (0.2)	**1.7** (0.3)	**-0.9** (0.2)
Lithuania		0.2 (0.5)	**0.5** (0.2)	**0.8** (0.2)	**1.1** (0.4)	**2.4** (0.2)	**1.3** (0.2)	**-2.0** (0.2)
Malta		-0.4 (0.4)	**0.6** (0.2)	**1.2** (0.3)	**2.2** (0.4)	**3.0** (0.4)	**1.7** (0.3)	**-1.8** (0.3)
Netherlands†		-0.2 (0.6)	0.5 (0.4)	0.0 (0.3)	**1.4** (0.5)	**2.3** (0.3)	**1.2** (0.3)	**-1.5** (0.3)
Norway (9)[1]	r	-0.2 (0.6)	-0.1 (0.2)	0.4 (0.2)	**1.8** (0.3)	**2.8** (0.2)	**1.5** (0.2)	**-1.6** (0.2)
Poland		0.0 (0.3)	0.2 (0.2)	**1.1** (0.2)	**0.7** (0.3)	**1.8** (0.2)	**1.2** (0.1)	**-1.4** (0.2)
Romania		0.3 (0.7)	**0.8** (0.4)	0.7 (0.5)	**2.5** (0.5)	**1.8** (0.3)	**2.5** (0.2)	**-1.6** (0.3)
Serbia		0.7 (0.5)	0.1 (0.3)	**1.2** (0.3)	**2.8** (0.7)	**2.8** (0.3)	**2.3** (0.3)	**-1.5** (0.2)
Slovak Republic		**-1.3** (0.4)	**0.6** (0.3)	**1.0** (0.3)	**1.8** (0.5)	**2.7** (0.2)	**1.0** (0.2)	**-1.8** (0.3)
Slovenia		**-0.9** (0.4)	**0.8** (0.2)	**1.3** (0.2)	**1.0** (0.4)	**2.3** (0.2)	**1.5** (0.2)	**-2.0** (0.2)
Spain		-0.1 (0.4)	0.1 (0.3)	**1.3** (0.2)	**1.0** (0.4)	**1.8** (0.2)	**2.0** (0.2)	**-1.3** (0.3)
Sweden[1]		0.0 (0.6)	-0.2 (0.2)	**0.9** (0.2)	**1.4** (0.4)	**1.8** (0.2)	**1.7** (0.2)	**-1.4** (0.3)
ICCS 2022 average		-0.1 (0.1)	**0.4** (0.1)	**0.9** (0.1)	**1.5** (0.1)	**2.2** (0.1)	**1.6** (0.1)	**-1.4** (0.1)
Countries not meeting sample participation requirements								
Brazil	r	0.2 (0.4)	**0.5** (0.2)	**1.6** (0.2)	**0.9** (0.3)	**2.6** (0.2)	**1.5** (0.2)	**-2.5** (0.2)
Denmark	r	0.7 (0.6)	0.1 (0.2)	-0.2 (0.2)	**1.6** (0.3)	**1.7** (0.2)	**1.4** (0.2)	-0.3 (0.2)
German benchmarking participant meeting sample participation requirements								
North Rhine-Westphalia	r	-0.7 (0.5)	**0.5** (0.2)	**0.9** (0.3)	0.1 (0.4)	**2.4** (0.2)	**1.4** (0.3)	**-1.7** (0.3)
German benchmarking participant not meeting sample participation requirements								
Schleswig-Holstein		-0.1 (0.1)	0.2 (0.3)	**1.0** (0.3)	0.9 (0.5)	**2.0** (0.3)	**1.5** (0.3)	**-1.8** (0.3)

Notes:
Statistically significant coefficients and explained variances are displayed in **bold**.
r Data are available for at least 70% but less than 85% of students.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

Table 7.12 Average multiple regression coefficients for expected electoral and active political participation

Predictor variables	Expected electoral participation			Expected active political participation		
Student background						
Gender (female)	**0.3**	(0.07)	▬	**-0.8**	(0.08)	▬
Socioeconomic home background	**0.6**	(0.04)	▲	0.1	(0.05)	▬
Parental interest in political/social issues	**0.9**	(0.09)	▬	0.1	(0.10)	▬
Information sources						
Discussions of political/social issues	**0.4**	(0.04)	▬	**0.1**	(0.05)	▬
Weekly use of media	**0.8**	(0.08)	▲	-0.1	(0.09)	▬
Having learned about voting	**0.7**	(0.09)	▲			
Having learned about becoming a candidate				**0.9**	(0.11)	▬
Participation						
Community participation	**0.1**	(0.04)	▬	**0.6**	(0.05)	▲
Civic participation at school	**0.5**	(0.05)	▲	**0.4**	(0.05)	▬
Civic social media engagement	**0.2**	(0.04)	▬	**0.7**	(0.05)	▲
Perceptions of political system/institutions						
Agreement with democracy as best form of government	**0.8**	(0.11)	▬	-0.1	(0.11)	▬
Satisfaction with political system	**-0.3**	(0.05)	▬	**0.4**	(0.06)	▬
Trust in civic institutions	**1.3**	(0.05)	▲	**0.9**	(0.06)	▲
Dispositions toward engagement						
Student interest in political/social issues	**1.4**	(0.10)	▲	**1.5**	(0.10)	▲
Citizenship self-efficacy	**1.4**	(0.05)	▲	**2.2**	(0.05)	▲
Importance of conventional citizenship behavior	**2.1**	(0.05)	▲	**1.6**	(0.05)	▲
Civic knowledge	**2.6**	(0.05)	▲	**-1.4**	(0.05)	▼

Notes:
Statistically significant coefficients and explained variances are displayed in **bold**.

Regression coefficients were:
▲ In most countries signficantly ($p < 0.05$) positive
▬ Not significant ($p < 0.05$) or inconsistent across countries
▼ In most countries signficantly ($p < 0.05$) negative

in less than half of the participating countries. Likewise, student agreement that democracy was the best form of government tended to have positive associations with expected electoral engagement, but this was not a consistent finding.

The most consistent associations were found for dispositions toward engagement, where students' interest, citizenship self-efficacy, belief in the importance of conventional citizenship, and civic knowledge had statistically significant coefficients in most ICCS 2022 countries. However, while civic knowledge had consistent positive associations with expected electoral participation, the opposite was true for expected active political participation.

The findings from these analyses suggest that, while students with higher levels of civic knowledge tend to express willingness to become active in elections, they are less likely to expect participation in active forms of conventional participation. This is in line with results from previous ICCS surveys in 2009 and 2016 (Schulz et al., 2010, 2018) and it may be that students with deeper insights into the complexities and possible pitfalls in the functioning of the political system are likely more cautious when asked about their willingness to become more actively involved in politics.

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Conclusion

8

8.1 Introduction

There is a long-standing tradition in educational research emphasizing the crucial functions of schools in preparing young people to undertake their roles as citizens in society. Among the central purposes of schooling endorsed by many countries are the development of knowledge and understanding of society's principles and institutions, the critical appraisal of citizen's roles and responsibilities, as well as learning about how to influence policies and practices through democratic processes (European Commission/ EACEA [European Education and Culture Executive Agency]/Eurydice, 2017). Civic and citizenship education is implemented differently across education systems, with approaches that range from the teaching of specific civic-related subjects through its integration into other related subjects (such as history or social science studies), and to its inclusion as a form of cross-curricular learning (Ainley et al., 2013). While acquisition of knowledge about civic institutions, decision-making processes, and citizenship rights and responsibilities have traditionally been at the core of civic learning, the notion of providing young people at school with opportunities to experience ways of engaging in society has become more prominent in curricular approaches during the past decades, often related to the concept of creating a *whole school environment* that promotes participation among students at school.

The International Association for the Evaluation of Educational Achievement (IEA) has been conducting cross-national surveys of civic and citizenship education for over 50 years (Torney-Purta & Schwille, 2011) and established the International Civic and Citizenship Education Study (ICCS) with a first cycle in 2009 (Schulz et al., 2010), followed by a second cycle in 2016 (Schulz et al., 2018) and this third cycle in 2022 (Schulz et al., 2023). Twenty-four education systems (from 23 countries) participated in ICCS 2022. Thirteen of these had participated in both ICCS 2009 and ICCS 2016 and another five had participated in either ICCS 2009 or ICCS 2016. Each cycle of ICCS has collected data on students' civic knowledge and understanding as well as attitudes to, and engagement with, issues related to civic and citizenship education. These studies include a mix of enduring aspects of the field to measure changes over time as well as contemporary focus areas that respond to new developments.

As in previous cycles, our study results need to be interpreted in the context of the national contexts across participating countries. These differences are related to demographic and economic factors as well as the diversity of political systems included in this study. While all participating countries were characterized by relatively advanced economic and social development, we still observed considerable differences in terms of economic indicators as well as in population size. The fact that all countries had relatively high Human Development Index (HDI) scores also suggests that ICCS 2022 was not fully representative of global society, as countries with lower economic and social development were not present in our study. However, the political systems of participating countries were quite diverse when comparing voter turnout, female representation, and indices reflecting perceived levels of corruption and democratic freedom. When looking at education system characteristics, we see further differences in terms of governance of school education, school autonomy, and the way civic and citizenship education was implemented.

Over the past two decades there have been many developments with implications for civic and citizenship education. These developments, which include globalization, migration, the growth in digital media, and environmental sustainability, transcend national borders. Some of the responses to globalization, economic inequalities, and increased migration were associated with the rise of populist political movements and political instability (European Commission, 2016; Eurostat, 2018; UNESCO [United Nations Educational, Scientific and Cultural Organization], 2015). Although there is extensive literature on the formation of civic attitudes and the emergence of civic participation by young people, there has been a

W. Schulz et al., *Education for Citizenship in Times of Global Challenge*, https://doi.org/10.1007/978-3-031-65603-3_8

growing relevance of large cross-national comparative studies of the political attitudes and participation of youth (Weiss, 2020). ICCS 2022 studied civic and citizenship education in 22 countries and two states in a twenty-third country. All but three of the countries were from continental Europe. Overall, about 83,000 lower-secondary school students from about 3500 schools in those countries participated along with about 42,000 teachers in those schools.

ICCS 2022 continued to study the foundations of citizenship that had been addressed in previous cycles in 2009 and 2016. These foundations include developed characteristics such as civic knowledge and understanding, capacities and dispositions to engage in civic-related activities, as well as experience of, and expectations of future, civic engagement. ICCS 2022 was designed so that variations across countries can be interpreted in relation to differences in the provision of civic and citizenship education. It also investigated the relationships between these characteristics and aspects of student background such as socioeconomic background, immigrant status, and gender.

ICCS 2022 identified focus areas for the study that were seen as being addressed through civic and citizenship education: satisfaction with political systems, equal rights in diverse cultures, engagement through digital technologies, and sustainability (Schulz et al., 2023). In addition, we recognized a growing interest in the notion of global citizenship education (GCED) as a concept in which people are seen as members of a globalized community as well being citizens of nations (Eurydice, 2017; UNESCO, 2015). In addition, education for sustainable development (ESD), which has emerged in response to increasing concerns about global threats to the environment, has come to be seen as part of global citizenship as well as being focused on local issues (Wals & Benavot, 2017).

Underpinning this study, we formulated five research questions that concerned national contexts for civic and citizenship education, students' civic knowledge, civic attitudes, and civic engagement, as well as school and classroom contexts (see Schulz et al., 2023). These research questions provided a structure for this international report on ICCS 2022, and each content-related chapter addressed one or more of these research questions.

In this chapter we will discuss key findings that are related to each of the five research questions, and then further consider conclusions from ICCS 2022 regarding each of the five focus areas. Further, we will compare cross-country patterns of selected test and questionnaire scales across participating countries and discuss potential implications of our findings for educational policy and practice. At the end, we will also provide an outlook on future research in this area and topics for further investigation beyond ICCS 2022.

8.2 Key Findings Related to the ICCS 2022 Research Questions

In this section, we will highlight results related to each of the research questions underpinning the overarching structure for the development of ICCS 2022, that are reflected in each of the content-related chapters. We based the design of ICCS 2022 around the following set of research questions (Schulz et al., 2023):

RQ 1 *How is civic and citizenship education implemented in participating countries?*

RQ 2 *What is the extent and variation of students' civic knowledge within and across participating countries?*

RQ 3 *What is the extent of students' engagement in different spheres of society and which factors within or across countries are related to it?*

RQ 4 *What beliefs do students in participating countries hold regarding important civic issues in modern society and what are the factors influencing their variation?*

RQ 5 *How is schooling in participating countries organized regarding civic and citizenship education and what is its association with students' learning outcomes?*

8.2.1 Implementation of Civic and Citizenship Education

In almost all ICCS 2022 countries, civic and citizenship education was integrated into subjects related to human and social sciences, into all subjects, or through co-curricular activities. However, in 12 countries it was also taught as a separate subject and in two countries it was only taught as a separate subject. There were also similarities across countries in how learning objectives are formulated at curricular level, with more commonality for some topics than for others. Principals and teachers expressed varied ratings of the most important aims of civic and citizenship education with the most frequently cited being promoting students' critical and independent thinking, promoting students' knowledge of citizens' rights and responsibilities, promoting respect for and safeguarding the environment, and developing students' skills and competencies in conflict

resolution. In just under half of the education systems, students were expected to be formally assessed in civic and citizenship education.

Implementation of civic and citizenship education includes, and depends on, teacher education. When preparing teachers for civic and citizenship education, according to our national contexts survey there are many instances of mandatory pre-service training and expectations that teachers receive in-service training. Teachers tended to report that they felt well prepared for most civic-related topics and for some topics majorities among them indicated that they had received pre- or in-service training. However, training for teaching about voting and elections or about political systems and institutions was reported by relatively few teachers, and the aims of promoting knowledge of social, political, and civic institutions or promoting local or political participation were less frequently mentioned as important aims of this learning area by teachers or principals than, for example, critical thinking or safeguarding the environment. Given that knowledge about and engagement with aspects related to voting and elections or the functioning of institutions lie at the core of what civic and citizenship education is expected to provide in democratic societies, this finding may raise questions regarding the extent to which specific contemporary themes start to receive more attention in this learning area than those that have traditionally been at its core, and what implications this may have in times where democratic processes are in peril across many societies. On average across countries, approximately 30% of students in ICCS 2022 failed to recognize the democratic principle of equality before the law, and a similar proportion failed to associate participation in a political party with the opportunity to influence government policy (see example items 3 and 4 in Chap. 3). Education systems may seek to provide guidance or even monitor the relative emphasis given in civic and citizenship education programs to technical knowledge and understanding of the formal and informal processes of decision-making, citizenship participation and influence in comparison to engagement with the content of contemporary themes.

8.2.2 Extent and Variation of Students' Civic Knowledge

In ICCS, civic knowledge includes students' capacity to recall information but extends beyond this to include their "ability to reason with and apply their knowledge" (Schulz et al., 2023, p. 26). The scope of civic knowledge, as assessed in ICCS, includes students' capacities to apply knowledge to concrete situations, but also to concepts associated with democratic values as they may relate to a range of contexts. In ICCS 2022 there were increased emphases on GCED and ESD compared to previous cycles. Consequently, there was an increase in the number of items (from 88 to 141) contained in the test design (Schulz et al., forthcoming). We also used the opportunities provided by computer-based delivery to include (in two thirds of the countries) items with interactive and digitally enhanced item formats.

The ICCS civic knowledge reporting scale was developed in 2009. All ICCS 2022 data, regardless of the data collection mode, were equated to that ICCS civic knowledge scale. The ICCS described scale of civic knowledge was developed by considering the contents of test items together with their scaled difficulties. The different civic and citizenship content and cognitive processes for each item were described and the items ordered according to their scaled difficulties. Analysis of the item content and relative difficulty allowed us to identify common themes of content and processes to characterize ranges (levels) of the scale. Civic knowledge was described across four levels of increasing complexity:

- Students working at Level D demonstrate familiarity with concrete, explicit content and examples relating to the basic features of democracy.
- Students working at Level C engage with the fundamental principles and broad concepts that underpin civic knowledge and understanding.
- Students working at Level B typically demonstrate some specific knowledge and understanding of the most pervasive civic and citizenship institutions, systems, and concepts.
- Students working at Level A demonstrate an integrated knowledge and understanding of civic and citizenship concepts and demonstrate some critical perspective.

While there were considerable differences in average civic knowledge across education systems participating in ICCS 2022, we observed even more variation in civic knowledge within countries. This pattern is similar to those observed in other large-scale international assessments. We found that, despite there being majorities of students with proficient civic knowledge in most education systems, there were profound gaps in civic knowledge among a number of lower-secondary students within each of the participating education systems. On average across countries, 15% of students were able at most to demonstrate familiarity

with concrete explicit civic-related content and were not demonstrating capacity to engage with fundamental principles of democracy, to generalize or to demonstrate critical perspective on policies and actions (see Table 3.10 in Chap. 3).

After civic knowledge had increased between 2009 and 2016 (Schulz et al., 2018), in ICCS 2022 we observed decreases since 2016. Across the 13 countries that participated in ICCS 2016 and 2022, the proportion of students achieving at Level B and above on the civic knowledge scale decreased from 70% to 64% and the proportion of students achieving below Level D increased from 9% to 14%. Six of these 13 countries recorded statistically significant decreases in average student civic knowledge between 2016 and 2022. There were no statistically significant increases in civic knowledge between 2016 and 2022 in any country. The absence of further increases or even decreases in civic knowledge can be viewed in the wider context of recent disruptions to education caused by the COVID-19 pandemic in many countries as well as decreases reported by other large-scale assessment studies (NAEP, PIRLS[1]) during the same time period. However, it is not possible to determine the nature or magnitude of this association.

Civic knowledge was associated with student background characteristics such as gender, socioeconomic background, immigration status and language spoken at home. We explored the associations between civic knowledge and student background. Female students demonstrated higher civic knowledge than male students and this has been consistent across the three cycles of ICCS. Across all countries, the difference in average civic knowledge scale scores between female and male students was equivalent to roughly one third of a level on the ICCS scale. Socioeconomic status, as measured by student reports on parental occupation, parental education, and the number of books in the home, showed significant positive associations with student civic knowledge. Across countries, students in the high socioeconomic status group scored significantly higher on the civic knowledge scale than those in the lower socioeconomic status groups.

Immigration status and language background were also found to be associated with student civic knowledge. In 16 out of 20 countries, students from immigrant families had statistically significantly lower civic knowledge scores than students from non-immigrant families. In addition, in almost all countries, students who reported mainly speaking the language of the ICCS test at home had significantly higher civic knowledge scale scores than those who reported speaking another language at home.

The associations of civic knowledge with gender, socioeconomic background and immigration status were confirmed in multilevel regression analyses that allowed for correlations among the predictor variables. Those analyses also identified net effects of educational aspirations and the developed attribute of interest in social and political issues. Results from the multilevel analyses of civic knowledge presented in Chap. 7 confirmed the consistent relationship of socioeconomic background and civic knowledge, which held both at the level of individual students as well as the effect of aggregated socioeconomic data from students at the level of schools. Comparisons with results from similar analyses conducted with ICCS 2016 data suggested that this association was very similar to that evident in the previous cycle. The strength of this association had not increased as might have been expected in light of the disruptions to schooling in many countries during the two years prior to this survey.

8.2.3 Extent of Students' Civic Engagement

ICCS 2022 investigated students' current civic engagement, in school and in the community, as well as prospective civic engagement as adults. Previous research has indicated that civic engagement as students is associated with future civic engagement as adults (Pancer, 2015).

Current Civic Engagement

We gauged civic engagement by students in lower secondary schools through measures reflecting students' interest in civic issues, their confidence in engagement activities (citizenship self-efficacy), their sourcing of information about political or social issues, discussing political or social issues outside school, engaging with civic issues through digital media, and participating in both community groups or organizations and school civic-related activities. When comparing levels of students' interest in political and social issues, we observed similarly low levels of student interest as in the previous cycles: Fewer than a third of students described themselves as quite or very interested. This proportion was much higher among those students who also reported that their parents or guardians were more interested in civic issues. However, most students expressed high levels of confidence in becoming actively engaged through activities such as arguing a point of view about a controversial political or social issue or organizing a group of students to achieve changes

[1]NAEP = National Assessment of Educational Progress; PIRLS = Progress in International Reading Literacy Study.

at school. After we had found small increases in citizenship self-efficacy scores between 2009 and 2016 across the countries common to both cycles, (Schulz et al., 2018), ICCS 2022 data showed a very small decline in average citizenship self-efficacy since 2016.

The most common source of information about political or social issues was watching television, followed by accessing internet sources, and then by reading a newspaper in print or online format. Even though television and newspapers have declined as sources of information over the 13 years of ICCS, they remain relevant to students as sources of information. Interestingly, there was no increase in students' use of the internet as a weekly source of information about social and political issues since the last cycle.

Students' discussions of social and political issues, and what is happening in other countries, with parents and friends increased over the 13-year time span of ICCS. There were differences among countries in the extent of these discussions. There were no significant associations between students' discussions of political or social issues outside school and gender, and only small associations of the frequency of these discussions with civic knowledge. However, in every country there was a strong positive association between students' discussions of political or social issues outside school and their interest in social and political issues.

Only relatively few students reported regular use of digital media for civic engagement. The most frequent civic-related interaction through digital media was "liking an online post about a political or social issue" while other forms of engagement with social and political issues through digital media (posting, commenting on, or sharing content) involved even fewer students (about every tenth of the surveyed respondents). In every country we found strong positive associations between students' digital civic engagement and interest in social and political issues.

In ICCS 2022, we observed that nearly two fifths of students had participated in "a voluntary group doing something to help the local community," three-tenths had participated in a religious group or organization, and one-tenth had participated in a youth organization affiliated with a political party or union. These levels of participation appeared not to have changed from 2009 to 2022.

Participation in school civic-related activities remained more common than engagement in community groups or organizations: Nearly four fifths of students reported "voting for class representative or school parliament/council," nearly half reported "becoming a candidate for class representative or school parliament/council," and two-fifths reported "taking part in decision-making about how the school is run." There appeared to have been slight declines between 2016 and 2022 in participation in all three forms of civic participation at school, especially in reports on becoming a candidate for class or school representative. ICCS 2022 results on students' willingness to participate in civic school activities in the future also showed some decreases since 2016. While these declines in civic engagement at school may have been affected by disruptions to education because of the COVID-19 pandemic, it is not possible to determine the extent of such effects given the diversity in how education systems were affected by these disruptions.

Prospective Civic Engagement

In ICCS 2022, majorities of students in most countries expected to engage in environmental protection in the future, for example through telling someone to stop causing damage to the environment or encouraging other people to make personal efforts to help the environment. In almost all countries, students with higher levels of civic knowledge were more likely to expect future engagement in environment protection activities. Prospective engagement in illegal activities such as blocking traffic, however, was expected only by relatively few students and these expectations showed consistent negative associations with civic knowledge.

As in previous cycles, ICCS 2022 showed that large majorities among students expected to participate electorally. However, we also observed statistically significant declines in comparison with previous cycles. Across all countries, relatively few students expected to participate in more active forms of (conventional) political engagement such as joining a party or a union or standing as a candidate in a local election. As reported in previous ICCS cycles, associations with civic knowledge were consistently positive with expected electoral participation but negative with expectations to become politically active.

Multivariate analyses (as presented in Chap. 7) confirmed the positive relationship of civic knowledge with expected electoral participation and its negative association with expectations to engage more actively. It also showed how other dispositions toward engagement such as civic interest or citizenship self-efficacy as well as trust in civic institutions were positively associated with the two indicators of expected political engagement. However, while satisfaction with the political system tended to be positively associated with expected active political participation, this was not the case for expected electoral participation, which instead showed positive relationships with students' beliefs in democracy as the best form of government.

8.2.4 Beliefs Regarding Important Civic Issues

ICCS 2022 explored student views with a question reflecting satisfaction with, as well as critical views of, the political system in each country. Almost three quarters of students on average agreed that democracy was "still the best form of government" for their country, while just slightly more than half of the students expressed agreement that their "political system works well." However, only two-fifths agreed that members of parliament were good at representing the interests of young people and that they treated all people in society fairly. Three fifths of the students agreed that their political representatives did not "care enough about the wishes of the people" and seven-tenths agreed that "political leaders have too much power compared to other people." Another interesting finding in the context of recent experiences with the COVID-19 pandemic is that nearly three quarters of the students agreed that "political decisions should more often be based on advice from scientific experts."

When comparing student results based on two scales reflecting students' satisfaction with and their critical views of the political system of their country, we observed that while both dimensions were negatively correlated at the level of countries, this association was not as consistent within countries. This suggests that students expressing satisfaction with the political system might often also have agreed with more critical statements. There were interesting differences among countries on these measures with greatest satisfaction, and the least critical views, being recorded in Norway, Sweden, and the Netherlands. Overall, students with higher levels of civic knowledge tended to be less satisfied with, and more critical of, their political system but the relationships varied and were possibly related to the respective national contexts.

ICCS 2022 also asked students to rate the extent to which a series of situations in society would be "bad for democracy." On average, students were very good at recognizing threats to democracy and had reasonably clear and consistent understandings of the essential tenets of democratic government. There was a moderately strong relationship between civic knowledge and recognition of threats to democracy, which suggests that responses to this question also reflected knowledge about desirable features of a democracy.

In conjunction with young people's views of their political systems (see above), we studied student trust in the national government, parliament/congress, courts of justice, traditional media, political parties, and police. While courts of justice continued to be among the most trusted institutions, we frequently observed declines in students' trust for most institutions between 2016 and 2022, which might (at least partially) have been influenced by recent experiences during the global pandemic and institutional responses to national emergencies. It is of interest to note that between 2009 and 2016 we had observed increases in trust in institutions in many countries, which might have been related to the specific context in 2009 that was characterized by the global financial crisis.

In reaction to the very recent development of a worldwide pandemic, international and national research teams included a question designed to measure students' views of the acceptability of imposing restrictions during national emergencies. The results showed considerable differences across countries in the level of students' agreement with the imposition of restrictions in a national emergency. Support for restrictions was generally higher among those with higher levels of civic knowledge and above-average socioeconomic background.

Majorities among students had expressed positive attitudes toward equal rights. As in previous cycles, they continued to strongly endorse gender equality, and endorsement was stronger among female students, those with higher levels of civic knowledge, and those with above-average socioeconomic background. Young people also continued to express high levels of support for equal rights for immigrants, and for all ethnic groups in society; levels of support were found to be higher among students with higher levels of civic knowledge and among female students.

We asked lower secondary students in ICCS 2022 to rate their perceptions of the importance of what constitutes good citizenship behavior reflecting conventional, social-movement-related, and globally oriented citizenship. The third dimension was introduced in ICCS 2022 in recognition of the growing interest in global citizenship issues and results showed that most students viewed globally oriented behaviors such as helping people in less developed countries and supporting initiatives to promote equal opportunities across the world as important for good citizenship. Students with higher levels of civic knowledge tended to regard globally oriented citizenship and social-movement-related citizenship behavior as more important than those with lower levels of civic knowledge. However, no consistent relationships with civic knowledge were recorded for the importance of conventional citizenship.

ICCS 2022 also asked students to rate their agreement with five actions to protect the environment. While majorities among students expressed high levels of support for environmental protection, we also observed large differences across countries. For example, agreement with the statement "governments should focus more on protecting the environment than on supporting economic growth" ranged from 62% to 88%. Positive attitudes toward environmental protection tended to be higher among students with higher civic knowledge, students from above-average socioeconomic background, and female students.

ICCS 2022 asked students to indicate the extent to which they thought each of a set of globally relevant issues were a threat to the world's future. Between 2016 and 2022, we found the largest average increases in the percentages of students seeing climate change as an important global threat. The corresponding percentages had also increased, but to a smaller extent, for water shortages and pollution. We also found that students with higher levels of civic knowledge and from higher socioeconomic background were more concerned about environmental threats than other students. There were also notable differences across countries: The proportions of students regarding climate change as a great threat to the world's future varied, from about half of the student population to about four fifths of the student population, while there was less cross-country variation in the percentages viewing pollution as a global threat.

ICCS 2022 also investigated students' perceptions of global issues, other than environmental issues, as important threats to the world's future. While concerns about violent conflict, global financial crisis, and overpopulation increased between 2016 and 2022, infectious diseases were viewed by fewer students as a large threat to the world's future in 2022 compared to 2016. This finding may be related to young people's experiences with a perceived ending of the global pandemic and the easing of restrictions during the ICCS 2022 data collection. Recent developments such as the Russian invasion of Ukraine with its implications for the worldwide economy following the pandemic, however, may have also contributed to the recorded increases in concerns among young people about violent conflicts and global financial crises.

8.2.5 Organization of Civic and Citizenship Education at School

We looked at two broad areas related to how civic and citizenship education is organized and implemented in schools and classrooms: (1) Participatory processes and social interactions at school, and (2) delivery of civic and citizenship education at school. While the first area was related to the aspects of the environment in which young people experience civic learning, interactions with teachers and students, and their engagement at school, the second area reflects what schools do in terms of activities related to civic learning.

Results from ICCS 2022 show that in most countries there were high levels of student participation in democratic processes at school. However, differences among countries appear to be influenced by the extent to which education systems have provisions to offer students opportunities for democratic engagement. This was also apparent when comparing the level of students' involvement in planning and decision-making processes at schools across countries, where we observed considerable variation across education systems.

From a student perspective, both the openness of classroom climates for discussing civic issues and student–teacher relations were rated as positive by majorities of lower-secondary students across countries. Measures of a school climate encouraging student engagement with contentious issues have been highlighted in research studies as favorable for the development of students' civic learning outcomes, in terms of both cognitive and affective-behavioral indicators. The importance of measuring students' perceptions of an open classroom climate for discussion were confirmed by our findings from multilevel analyses, where this variable had positive net effects on civic knowledge, even after including socioeconomic background indicators.

Findings from teacher and school surveys show that many students had opportunities to collaborate with external groups and organizations in civic-related activities. Majorities among students also reported to have learned about a wide range of civic issues including how to determine the veracity of online information, citizens' rights, and environmental protection. Further, ICCS 2022 data show that teachers reported adopting ways of teaching diverse classrooms and that they also expressed appreciation of diversity as important resources for teaching. In addition, contextual data also suggest many initiatives at schools related to environmental sustainability and opportunities provided to students to develop awareness of different cultures and global issues including environmental threats.

8.3 Key Findings Related to Contemporary Focus Areas

ICCS 2022 formulated five focus areas with high relevance for contemporary civic and citizenship education that were concerned with sustainability, engagement through digital technologies, issues related to diversity, young people's views of the political systems, and aspects of global citizenship. The latter area was treated as an overarching area identified as deserving more explicit recognition in this survey cycle (Schulz et al., 2023). These focus areas are new to ICCS 2022 and therefore there are no trend data to report. In addition to providing descriptive information, we are able to relate students' views of these focus areas to students' background characteristics as well as to their developed attributes such as civic knowledge and interest in social and political issues. Our expectation was that higher levels of civic knowledge would be

associated with greater endorsement of environmental sustainability, equal rights in diverse communities and global citizenship. We also expected that higher levels of digital civic engagement would be associated with greater interest in social and political issues.

In this section we discuss some key results from ICCS 2022 in light of each of the focus areas. However, it is important to acknowledge that in this first report we only provide some preliminary insights into many of the results for each of these areas. We expect that secondary research will provide many more findings from this survey for each of these focus areas.

8.3.1 Sustainability

Majorities among students regarded a number of worldwide issues (for example, pollution, water shortages, climate change, loss of biodiversity) as important threats to the future of the world. Climate change was one of the major concerns perceived by young people, but there was considerable variation across countries. Furthermore, concerns about global environmental threats were greater among students with higher levels of civic knowledge. While we found that majorities among surveyed students endorsed taking actions to protect the environment and were also expecting to engage in environmental protection activities themselves, there were also considerable differences across countries. Students with higher levels of civic knowledge were again more likely to support environmental protection and to be willing to consider taking action in the future.

The findings on the positive associations of students' civic knowledge with their environmental concerns, support for environmental protection, and willingness to consider becoming active, suggest that civic and citizenship education plays an important role in providing young people with societal knowledge as a way of promoting not only an awareness of global environmental issues but also their support for taking action, including their personal commitment. Twenty out of 24 participating education systems included students' understanding of environmental issues as learning objectives in the curriculum of the target grade. When asked about important aims for civic and citizenship education, on average almost half of the teachers saw promoting respect and safeguard for the environment among the three most important goals for this learning area, while more than a quarter of students were at schools where school principals considered this an important goal. Across countries, only half of the teachers reported having received pre- or in-service training on the environment and environmental sustainability, but most felt very or quite well prepared for teaching about these issues.

At school level, it is interesting to note that most teachers reported that students had (to a large or moderate extent) opportunities to learn about the environment and its sustainability, and results from the school survey indicated that in many countries most students were enrolled at schools where principals indicated there was a wide range of environment-friendly activities. However, there were also many countries where school activities regarding the environment were less frequently reported than in others. Furthermore, only relatively few teachers reported more active forms of environmental activities with students from the grade assessed in ICCS 2022.

8.3.2 Engagement Through Digital Technologies

One of the most fundamental changes during the last two decades has been the increasing interaction of young people via digital communication and social media. In terms of the sourcing of information, we found that the most common source of information about political or social issues continued to be watching television, followed by using the internet, and then reading a newspaper in print or online format. Although there is evidence that young people have become increasingly involved in civic-related activities though virtual networks and social media (see, for example, Kahne & Bowyer, 2019), similar to findings in the previous cycle, ICCS 2022 results suggest that civic engagement through digital media was not as extensive as might have been expected. Compared to in-person discussions with parents and friends about political and social issues and what is happening in other countries, we found less use of digital media for exchanging views about civic issues.

When interpreting the results from this survey, it is important to consider the relatively young age of the respondents and that these more active forms of digital engagement might increase in later years of adolescence. Positive associations of digital engagement with interest in political and social issues, and with expected active political participation suggest that students who reported these forms of activities more frequently were already positively disposed to civic engagement in general. It seems very likely that there will continue to be changes in how young people use sources of information about civic issues in the future, and that there will also be growing interest in and use of digital forums for exchanging views about social and political issues.

All of these will have implications for civic and citizenship education both in terms of how to promote students' engagement in society in ways that is in keeping with their habits of using digital technologies, and with a view on risks associated with the increasing opportunities of receiving growing amounts of "unchecked" and possibly misleading information. Another ICCS 2022 result of relevance in this context is that most students reported to have learned about how to check the trustworthiness of online information. In most participating education systems, understanding the role of digital technologies for civic and civil society was included as a learning objective, and teachers reported to have received training in, and felt prepared to teach, responsible internet use. Digital forms of communication and engagement seem likely to increase, and more powerful artificial intelligence tools seem likely to impact on the generation of more online and less transparent information. Therefore, it is important that civic and citizenship education continues to address issues associated with digital technologies in the future.

8.3.3 Diversity

ICCS 2022 continued to focus on the extent of students' endorsement of gender equality and found continued high levels of support, especially among female students, students with high levels of civic knowledge, and students from above average socioeconomic backgrounds. Given increased levels of diversity in many societies, we also investigated students' views of equal rights for immigrants and ethnic groups. Endorsement of equal rights for immigrants, and all ethnic groups in a society, was stronger among students with higher levels of civic knowledge and slightly stronger among female students and those from higher socioeconomic backgrounds. There may be a powerful inference to be drawn from these results that education about civic principles (which form part of the ICCS civic knowledge test) can have consequences for pluralist attitudes in diverse societies. In its aim to provide young people with the necessary knowledge about political and social issues, civic and citizenship education can therefore be seen as associated with building social cohesion.

ICCS 2022 also looked at how schools and teachers deal with diversity in their educational contexts and found that majorities among lower-secondary students were enrolled at schools where principals reported teacher training activities to promote teaching to young people from diverse backgrounds, instill tolerance toward diversity, and assist students with special learning needs. Most teachers also reported to have conducted activities to address diversity in their classrooms and endorsed the notion that diversity is an important resource for education. Furthermore, high percentages among teachers also reported attendance of pre- or in-service training courses on diversity and inclusiveness. These results may be interpreted as painting a quite positive picture of how schools and teachers prepare for dealing with growing levels of diversity. However, it is important to note that there remained considerable variation across countries, in particular for remedial programs for students from disadvantaged backgrounds and optional courses to address the needs of students from different language backgrounds.

8.3.4 Views of Political Systems

Recent years have witnessed increasing instability, even in long-established democratic systems, and the surge of new and often extremist political movements. In this context the results of ICCS 2022 are of great interest as a means to explore the views of young people regarding their own political systems. The results show that lower-secondary students expressed support for the notion of democracy as the best way of government but that few students expressed high levels of satisfaction while many students showed themselves as highly critical of the ways their political system work.

Majorities of students were able to recognize critical situations such as government attempts to control critical media, or law-breaking by governments, as bad for democracy. There was more variation among countries about other aspects that were bad for democracy such as interference with the justice system or nepotism. Students' trust in civic institutions is another interesting aspect to consider in this context. ICCS 2022 results show decreasing levels of trust in many countries and confirmed findings from earlier surveys that in countries where the political system is perceived to be more dysfunctional, young people with higher civic knowledge have less trust in its institutions.

Multiple regression analyses of expected political participation have shown that indicators related to students' views of the political system and its institutions influenced young people's expectations to act as future citizens. While higher levels of knowledge about civic issues, basic support for democracy, and institutional trust positively influenced expectations to

vote, more active forms of participation were expected by those who also had trust in civic institutions, those who expressed satisfaction with the political system, and those who were less knowledgeable.

These findings suggest that acquisition of knowledge about civic society and institutions promotes voting in future adult life but may be detrimental for more active forms of citizenship, a finding with considerable implications for the functioning of democratic participation. However, expected activities, such as those concerned with environmental protection, were more likely among students with higher levels of civic knowledge. Similar observations can be made for students' beliefs in good citizenship behavior: More knowledgeable students regarded social-movement-related and globally oriented behaviors as important features of good citizenship but there was no clear correlation between civic knowledge and appreciation of conventional citizenship behavior.

8.3.5 Global Citizenship

GCED has received considerable attention in recent debates about global education targets, cross-national interconnectedness, and globalization of political, social, economic, and environmental issues. Most lower- secondary students in ICCS 2022 indicated that they perceived good citizenship behavior to include an interest in different cultures and languages, changing one's personal lifestyle to be more environmentally friendly, supporting initiatives that promote opportunities for people across the world, and helping people in less developed countries. Globally oriented citizenship behaviors were viewed as more important among students with high levels of civic knowledge. This consistent positive association with civic knowledge suggests that civic and citizenship education may have potential benefits for promoting a sense of global citizenship among young people.

Most education systems participating in ICCS 2022 included students' understanding of global issues and interconnections as a learning goal for civic and citizenship education, while fewer than half explicitly formulated developing a global identity as a goal. When asked about the most important learning goals for this area, about a quarter of teachers viewed promoting students' engagement for a fairer and more peaceful world as one of the three most important aims, with similar levels of support emerging from the principal survey. Furthermore, there were considerable differences across countries regarding teacher preparation on these issues. Majorities of students studied at schools where principals reported activities to raise awareness about important global topics and the relations between local and global issues. Most teachers also reported undertaking such activities with their students. While most teachers felt prepared to teach students about the global community and its institutions and global issues, fewer had also received pre- or in-service training regarding these topics.

8.4 Comparing Student Results Across Countries

As in previous cycles, ICCS 2022 provided a rich variety of indicators reflecting students' civic knowledge, engagement, and attitudes. We compared national averages across participating countries that met IEA sample participation requirements (Table 8.1).

One observation is that there are no clear-cut patterns of having high or low averages across all countries, similar to previous cycles of ICCS. As stated in earlier ICCS reports, students from some countries with higher averages of civic knowledge might coincide with lower average scores for many affective-behavioral indices (as, for example, is the case with Estonia), however, this is by no means a clear pattern, and in countries like Chinese Taipei and Italy there are higher average scores for most indices. In countries with low average achievement like Colombia, we found low civic knowledge scores but above-average scores for most affective-behavioral scales. When looking at patterns across different scales concerned with expected future participation, we observe similarities of relative scale scores within countries. Individual country data suggest that students tend to be consistently inclined or disinclined towards future participation across the different activities. Similar observations about common patterns within countries can be made for scales that reflect endorsement of equal rights (for gender groups and for immigrants), and for students' perceptions of the importance of social-movement-related citizenship and globally oriented citizenship. The importance of conventional citizenship is less consistently aligned with social movement and globally oriented citizenship.

Table 8.1 Comparison of national averages of cognitive and affective-behavioral scales

Country	Civic knowledge	Student engagement								
		Discussions of political and social issue	Digital civic engagement	Citizenship self-efficacy	Willingness to participate in school activities	Expected participation in legal activities	Expected participation in illegal activities	Expected participation in environmental protection activities	Expected electoral participation	Expected active political participation
Bulgaria	▼	▽	△	△		△	▲		▽	△
Chinese Taipei	▲		▽	▲	▲		▼	△	△	
Colombia	▼	▽	△	△	▲	▲	▲	▲	△	▲
Croatia[1]	△		▽	△	▽	▽	▽	△	▽	▽
Cyprus	▼		△	△	△	△	▲	△	▽	△
Estonia	▲	△	▽	▽	▼	▽	▽	▼	▼	▽
France				▽	▽	▽	▽	△	▲	△
Italy	△	△	△	△	△	△		△	△	△
Latvia[1]	▽	△	▽	▽	▽	▽	▽	▼	▼	▽
Lithuania		▲	△	▽		△	△	△		△
Malta	▽			▽	▽	▽	▽		▽	
Netherlands†		▽		▼	▼	▼	▽	▼	▽	▽
Norway (9)[1]	△	△	▽		▽	▽	▽	▼	▲	▽
Poland	▲	△	△		△	△		△	△	▽
Romania	▼	▽	△	▲	▲	△		▲	▲	△
Serbia	▼	▽	▽	▽			△		▼	▼
Slovak Republic	▽	△		▽	▽	△		△	▽	▽
Slovenia		▽	▽	▽	▽		△	▽	▽	▽
Spain				△	△	△		△	△	△
Sweden[1]	▲	△			▽	▽	▽	▽	△	△

(continued)

Table 8.1 (continued)

Country	Student attitudes								
	Satisfaction with political system	Critical views of political system	Support for restrictions in national emergencies	Importance of conventional citizenship	Importance of social-movement-related citizenship	Importance of globally oriented citizenship	Positive attitudes toward environmental protection	Endorsement of gender equality	Positive attitudes toward immigrants
Bulgaria	▽	△	▽	▽	△	▽	▽	▼	▼
Chinese Taipei	▲	▽	▲	▲	▲	△	▲	▲	▲
Colombia	△	△	△	△	▲	△	△	▼	▽
Croatia[1]	▼	▲	▽		△	△	△	△	△
Cyprus	▽	▽	▽	△	△			▽	▽
Estonia	△	▽	△	▼	▽	▽	▽		▽
France	△	△	△	△	▼	△	▲	▲	△
Italy	▽	△	△	▲	△	▲	△	▲	△
Latvia[1]	▽		▽	▽	▽	▽	▽	▼	▼
Lithuania	▽	△	△					▽	▽
Malta	△	▽	△	▽			△	△	△
Netherlands†	▲	▼	▼	▽	▼	▼	▼		▽
Norway (9)[1]	▲	▼	▲	△	▽	▽		△	△
Poland	▼	△	▽	△	△		▽	▽	▽
Romania	▼	▲		▽	△	△	▽	▽	
Serbia			▽	▼		▽		▼	▼
Slovak Republic	▼	△	▽	▽	▽	▽	▼	▼	▽
Slovenia		△	▽	△	▽	▽	▽	▽	▽
Spain		△	△		△	△	△	△	△
Sweden[1]	▲	▼			▽	▽		▲	▲

Notes:
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling paticipation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

National ICCS 2022 results are:
▲ More than 0.3 international standard deviations above ICCS 2022 average
△ Significantly above ICCS 2022 average
▽ Significantly below ICCS 2022 average
▼ More than 0.3 international standard deviations below ICCS 2022 average

8.5 Implications for Educational Policy and Practice

Any discussion of implications from our study results for policy and practice requires the acknowledgement of the limitations of ICCS 2022 as a data source. Given the cross-sectional research design of large-scale assessments like ICCS, these data cannot be used to establish causality. Further, it is important to keep in mind that country participation is self-selective because education systems that chose to participate were likely to have made this decision in the context of a heightened interest in the learning area. Together with the observation that country participation was mainly concentrated in Europe, it becomes clear that ICCS 2022 is not a representative international sample of all countries or education systems. Nevertheless, the study results provide an important update on the state of civic and citizenship education in a wide range of countries following a period of considerable global change related to a worldwide pandemic, growing violent conflicts, increasing instability of political systems, and ongoing digitalization of society.

ICCS 2022 data showed no further increases in civic knowledge beyond those observed between 2009 and 2016, and in several countries, they also showed considerable declines. Whether, and to what extent, this development is connected to disruptions in education between 2020 and 2022 caused by the COVID-19 pandemic cannot be firmly established even though similar observations have been made based on data from other surveys. However, these findings may also indicate the relative status of civic and citizenship education as a learning area that receives less attention and support than other learning areas in times of crisis. We expect that participating countries will pay attention to the results among their students and further review the extent to which results may have been influenced by disruptions or other factors within their national contexts.

Reviews of the distribution of civic knowledge based on ICCS 2022 data show great variation across countries and even more variation within countries. Furthermore, the multilevel analyses presented in this report suggest a continued impact of socioeconomic background on the acquisition of civic knowledge both at the level of individual students as well as of the "social intake" (measured as an aggregate effect of students' home background) at the level of schools. Further gaps in civic knowledge concern the differences between male and female students and between immigration and language background groups. Therefore, there are many possible improvements that can be made to widen the reach of civic learning to be more inclusive.

The finding that relatively few teachers reported having received pre- or in-service training on issues related to voting and elections or the constitution and political systems might be regarded as a sign that "traditional" goals of civic and citizenship education have become less central for this learning area. This may have implications in terms of preparing young citizens for participation in democratic societies in times where public trust in political systems and institutions continue to be eroded. ICCS 2022 data show how conventional forms of more active participation were expected only by relatively few students, who were on average characterized by lower levels of civic knowledge. A reluctance of more knowledgeable young people to choose active conventional forms of participation may be due to perceptions of dysfunctionality in institutions among those with more insights into the deficits of a democratic system. It is worth considering the extent to which civic and citizenship education could help to promote critical views at the same time as emphasizing the key roles of all kinds of active citizenship participation in democratic societies.

Once again, ICCS 2022 has confirmed the importance of open classroom climates and opportunities for students' engagement within schools for their civic knowledge and understanding as well as their prospective participation in society. These findings lend support to the long-standing view of the important role schools play in building citizenship skills and orientations through environments where they can experience forms of participation. However, data from ICCS 2022 indicate that democratic processes are not implemented for all students and schools across education systems, and that there was considerable variation in the proportions of students who were able to experience voting and influencing in their schools. Further, ICCS 2022 results showed slight decreases in students' past, current, and expected civic engagement at school. These findings suggest that there is scope for establishing and widening opportunities for students to become active at their schools that in turn have the potential for promoting more active citizenship orientations in the future.

We can conclude that there are two implications from these results with high relevance for future improvements in this learning area. One is concerned with building civic knowledge and understanding in relation to civic principles, forms of participation and identities as well as institutions and systems. ICCS 2022 results have shown continued gaps in civic knowledge in many ways, which, in a context of growing alienation among citizens from their civic society and political systems, may be seen as highly concerning. Here, one may consider improvements through strengthening and making formal learning about civic issues more inclusive. The second implication is related to building more opportunities for students to actively engage in their school environment, and thus become more engaged in active participation in the future.

Generally, ICCS 2022 data also provided many positive results concerning how schools and teachers deal with issues of diversity among their students and in the wider community, and how education systems incorporated aspects such as digital technologies, environmental sustainability, and global citizenship issues in civic learning. While these observations were often held on average, there were important differences across countries as well as within countries. Therefore, it is important to take stock of these results also at the national level and review the extent to which improvements in the provision of civic learning in these areas, as well as school activities to promote them in their school environment, can be applied.

The ICCS 2022 civic knowledge test included many new aspects, including material concerned with environmental sustainability and global citizenship issues as well as computer-enhanced items, that address issues of civic engagement in digital environments. While the ICCS 2022 civic knowledge assessment did not include subscales to inform about subdimensions, it may be possible to use achievement data in future research for a more fine-grained analyses of specific curriculum-related content. In individual countries, it could be informative for educational policy and practice to review specific content knowledge in comparison with the (varying) expectations for civic learning in each education system.

8.6 Outlook

As in previous cycles, we expect secondary researchers to make extensive use of the rich database that ICCS 2022 will provide for future studies. ICCS data from previous cycles have contributed to a substantial body of research publications on civic and citizenship education and this is likely to continue in the future. It is also possible that there may be future thematic reports based on ICCS 2022 data as well as publications that provide insights into civic and citizenship education in individual countries.

ICCS is one of four IEA studies that are regularly implemented across a wide range of countries. The next data collection of ICCS is scheduled to take place in 2027 and IEA has commenced preparations for commissioning this fourth survey cycle. Growing concerns about the global impacts of climate change, the increasing interconnectedness of the world and new developments in digital technologies will continue to be important topics for a next study. The Russian invasion of Ukraine in early 2022 also emphasized the ongoing risks of armed confrontation, which suggests that a more extensive development of aspects related to conflict resolution and human rights could be warranted. ICCS 2022 data have once again highlighted the importance of the school environment for the promotion of students' civic engagement. Here, it would be relevant to consider extending what happens in classrooms when dealing with civic issues, for example, how teachers and students perceive discussing topics that may be viewed as conflictive or contentious in society.

ICCS 2022 was the first cycle of ICCS where computer-based delivery was used in two thirds of the participating countries. In the next cycle, this delivery mode is expected to become the only form of assessment and expanding the use of the opportunities by measuring civic knowledge in a digital environment could be extended further. This is especially relevant in times where communication is expected to become even more digitalized.

This report has provided an overview of the state of civic and citizenship education for the third time and provides information about changes in lower-secondary students' civic knowledge, attitudes, and engagement since 2009. Recent developments such as the worldwide pandemic, the outbreak of military conflict involving a major superpower, increases in the impact of climate change on societies, and the further destabilization of many political systems have emphasized the importance of preparing young people for citizenship as part of education. We expect continued and broadened interest in this area in the future and hope that there will be an increased interest in participating in this highly relevant study in the next cycle.

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Appendix

A.1 Sampling Information and Participation Rates (Tables A.1, A.2, A.3)

Table A.1 Coverage of ICCS 2022 target population

Country	International target population	Exclusions from target population		
	Coverage (%)	School-level exclusions (%)	Within-sample exclusions (%)	Overall exclusions (%)
Bulgaria	100	0.2	2.0	2.2
Brazil	100	2.3	0.9	3.1
Chinese Taipei	100	0.8	1.8	2.6
Colombia	100	0.2	1.9	2.2
Cyprus	100	1.2	2.2	3.4
Denmark	100	2.9	2.5	5.4
Estonia	100	2.8	2.1	4.9
France	100	2.9	1.4	4.3
Croatia	100	2.5	5.2	7.6
Italy	100	0.8	3.7	4.5
Lithuania	100	2.9	1.1	4.0
Latvia	100	5.9	1.8	7.7
Malta	100	1.4	2.4	3.8
Netherlands	100	3.8	1.5	5.3
Norway (9)	100	3.3	4.2	7.4
Poland	100	2.0	1.9	4.0
Romania	100	3.2	1.1	4.3
Serbia	100	1.0	1.9	2.8
Slovak Republic	100	0.7	0.5	1.2
Slovenia	100	2.9	1.1	3.9
Spain	100	1.0	3.3	4.3
Sweden	100	2.1	4.3	6.4
German benchmarking participants				
North Rhine-Westphalia	100	2.5	1.0	3.4
Schleswig-Holstein	100	1.5	0.6	2.1

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
(9) Country deviated from international defined population and surveyed adjacent upper grade.

W. Schulz et al., *Education for Citizenship in Times of Global Challenge*, https://doi.org/10.1007/978-3-031-65603-3

Table A.2 Participation rates and sample sizes for student survey

Country	School participation rate (%)			Total number of schools that participated in student survey	Class participation rate (weighted) (%)	Student participation rate (weighted) (%)	Total number of students assessed	Overall participation rate (%)	
	Before replacement (weighted)	After replacement (weighted)	After replacement (unweighted)					Before replacement (weighted)	After replacement (weighted)
Bulgaria	84.7	96.5	96.6	144	99.3	91.3	3113	76.8	87.5
Brazil	74.6	87.3	86.8	190	96.3	80.8	5997	58.0	67.9
Chinese Taipei	97.4	98.7	98.7	148	100.0	93.8	3852	91.4	92.6
Colombia	92.7	98.4	98.7	148	100.0	92.8	4193	86.0	91.3
Cyprus	97.4	97.4	96.9	95	100.0	91.5	3136	89.1	89.1
Denmark	30.3	62.0	62.0	134	98.4	89.4	4769	26.7	54.6
Estonia	83.4	83.4	83.4	166	100.0	89.5	2685	74.6	74.6
France	97.3	98.0	98.0	147	100.0	93.3	3533	90.8	91.4
Croatia	92.5	93.9	94.0	141	99.4	86.6	2766	79.6	80.8
Italy	97.5	98.8	98.8	158	100.0	92.2	2945	89.9	91.1
Lithuania	97.8	97.8	98.3	177	100.0	91.0	3560	89.0	89.0
Latvia	93.8	96.7	96.7	147	100.0	88.6	2876	83.1	85.7
Malta	100.0	100.0	100.0	29	100.0	89.4	2720	89.4	89.4
Netherlands	58.4	82.9	83.2	124	100.0	89.2	2609	52.1	74.0
Norway (9)	98.1	98.1	96.6	142	99.1	88.6	5687	86.1	86.1
Poland	90.8	99.4	99.4	169	99.6	91.3	4437	82.6	90.4
Romania	83.6	98.5	97.5	154	100.0	92.6	2768	77.4	91.2
Serbia	88.9	91.9	92.0	138	98.8	88.5	2659	77.7	80.3
Slovak Republic	93.5	96.8	96.2	154	100.0	93.5	3202	87.4	90.5
Slovenia	90.3	96.6	96.6	168	100.0	94.9	3466	85.6	91.6
Spain	96.8	98.1	98.1	157	100.0	90.3	3487	87.4	88.6
Sweden	93.9	96.8	96.8	149	100.0	90.0	3263	84.5	87.2
German benchmarking participants									
North Rhine-Westphalia	89.3	95.4	95.4	145	99.8	89.2	3267	79.5	84.9
Schleswig-Holstein	57.6	76.1	73.7	84	99.9	80.3	1487	46.2	61.1

Note:
(9) Country deviated from international defined population and surveyed adjacent upper grade.

Table A.3 Participation rates and sample sizes for teacher survey

Country	School participation rate (%)			Total number of schools that participated in teacher survey	Teacher participation rate (weighted) (%)	Total number of teachers assessed	Overall participation rate (%)	
	Before replacement (weighted)	After replacement (weighted)	After replacement (unweighted)				Before replacement (weighted)	After replacement (weighted)
Bulgaria	83.5	94.1	94.0	140	87.7	1806	73.2	82.5
Brazil	63.3	77.2	77.6	184	84.9	1716	53.7	65.5
Chinese Taipei	97.5	99.5	99.3	149	97.5	2307	95.0	97.0
Colombia	69.8	76.8	80.0	120	86.2	1202	60.2	66.2
Cyprus	86.8	86.8	86.7	85	74.1	1147	64.3	64.3
Denmark	16.2	32.4	32.4	70	77.6	237	12.6	25.2
Estonia	72.8	72.8	72.9	145	80.2	1721	58.4	58.4
France	64.2	64.7	64.7	97	70.1	1091	45.0	45.4
Croatia	97.7	98.7	98.7	148	91.4	2290	89.3	90.2
Italy	96.9	98.2	98.1	157	92.4	2121	89.5	90.7
Lithuania	97.6	97.6	97.8	176	90.1	2611	87.9	87.9
Latvia	77.8	79.5	77.6	118	83.6	1638	65.1	66.5
Malta	89.9	89.9	89.7	26	91.6	415	82.3	82.3
Netherlands	45.3	60.0	61.3	92	78.1	1062	35.4	46.9
Norway (9)	84.6	84.6	83.7	123	87.3	1355	73.8	73.8
Poland	90.4	98.5	98.2	167	94.9	2259	85.9	93.6
Romania	81.1	98.2	96.8	153	97.1	2242	78.7	95.3
Serbia	97.3	100.0	100.0	150	98.8	2257	96.2	98.8
Slovak Republic	90.4	94.6	95.6	153	94.3	1907	85.3	89.2
Slovenia	90.0	96.7	96.6	168	96.3	2461	86.7	93.1
Spain	97.1	98.3	98.1	157	88.1	1954	85.5	86.6
Sweden	82.7	85.2	85.1	131	76.4	1559	63.1	65.0
German benchmarking participants								
North Rhine-Westphalia	79.5	87.2	84.9	129	81.8	2916	65.1	71.3
Schleswig-Holstein	n/a	n/a	9.4	n/a	n/a	n/a	n/a	n/a

Note:
(9) Country deviated from international defined population and surveyed adjacent upper grade.

A.2 Regression Analysis for Civic Knowledge and Age (Table A.4)

Table A.4 Regression results for civic knowledge and student age

Country	Unstandardized regression coefficient	Explained variance (%)
Bulgaria	**-15** (5.8)	0 (0.3)
Chinese Taipei	-4 (6.3)	0 (0.1)
Colombia	**-16** (2.1)	**4** (0.9)
Croatia[1]	-9 (6.6)	0 (0.2)
Cyprus	**-29** (5.4)	**1** (0.5)
Estonia	1 (7.5)	0 (0.0)
France	**-42** (4.8)	**3** (0.7)
Italy	**-17** (4.8)	1 (0.4)
Latvia[1]	**-15** (4.9)	1 (0.4)
Lithuania	**-15** (6.5)	0 (0.3)
Malta	**20** (8.0)	0 (0.3)
Netherlands[1]†	**-48** (6.0)	**7** (1.6)
Norway (9)[1]	0 (6.7)	0 (0.0)
Poland	**-11** (3.5)	0 (0.2)
Romania	**-26** (6.8)	2 (0.8)
Serbia	-4 (7.3)	0 (0.1)
Slovak Republic	**-58** (5.2)	**10** (1.9)
Slovenia	**-26** (4.9)	**1** (0.5)
Spain	**-39** (3.6)	**6** (1.0)
Sweden[1]	**-23** (8.9)	1 (0.3)
ICCS 2022 average	**-19** (1.3)	2 (0.2)
Countries not meeting sample participation requirements		
Brazil	**-34** (2.5)	**6** (1.0)
Denmark[1]	**-24** (5.7)	**1** (0.4)
German benchmarking participant meeting sample participation requirements		
North Rhine-Westphalia	**-55** (3.4)	**11** (1.4)
German benchmarking participant not meeting sample participation requirements		
Schleswig-Holstein	**-60** (5.2)	**12** (2.2)

Notes:
Statistically signficant coefficents and explained variances are displayed in **bold**.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

A.3 Student Percentages for Dichotomous Variables (Table A.5)

Table A.5 Percentages of students in categories for dichotomous variables used in Chaps. 4, 5 and 6

Country	Gender		Students' interest in political and social issues		Levels of socioeconomic status		Levels of civic knowledge	
	Female	Male	Not or not very interested	Quite or very interested	Below national average	At or above national average	Civic knowledge below Level B (below 479)	Civic knowledge at or above Level B (479 and above)
Bulgaria	49 (1.8)	51 (1.8)	71 (1.1)	29 (1.1)	47 (1.4)	53 (1.4)	58 (2.1)	42 (2.1)
Chinese Taipei	49 (0.8)	51 (0.8)	65 (0.9)	35 (0.9)	47 (1.4)	53 (1.4)	12 (0.7)	88 (0.7)
Colombia	48 (1.4)	52 (1.4)	54 (1.1)	46 (1.1)	53 (1.5)	47 (1.5)	61 (1.9)	39 (1.9)
Croatia[1]	51 (1.1)	49 (1.1)	73 (1.1)	27 (1.1)	53 (1.7)	47 (1.7)	26 (1.4)	74 (1.4)
Cyprus	50 (0.9)	50 (0.9)	73 (0.9)	27 (0.9)	44 (0.9)	56 (0.9)	59 (1.3)	41 (1.3)
Estonia	49 (1.2)	51 (1.2)	67 (1.5)	33 (1.5)	46 (2.1)	54 (2.1)	25 (1.7)	75 (1.7)
France	50 (0.8)	50 (0.8)	66 (0.9)	34 (0.9)	49 (1.4)	51 (1.4)	37 (1.4)	63 (1.4)
Italy	50 (1.0)	50 (1.0)	61 (1.2)	39 (1.2)	51 (1.4)	49 (1.4)	30 (1.6)	70 (1.6)
Latvia[1]	50 (0.9)	50 (0.9)	74 (0.9)	26 (0.9)	47 (1.7)	53 (1.7)	44 (1.6)	56 (1.6)
Lithuania	50 (0.9)	50 (0.9)	65 (0.9)	35 (0.9)	48 (1.8)	52 (1.8)	37 (1.6)	63 (1.6)
Malta	49 (3.9)	51 (3.9)	69 (1.2)	31 (1.2)	49 (2.5)	51 (2.5)	45 (2.9)	55 (2.9)
Netherlands[1]†	47 (1.8)	53 (1.8)	80 (1.0)	20 (1.0)	50 (1.5)	50 (1.5)	38 (2.0)	62 (2.0)
Norway (9)[1]	48 (0.7)	52 (0.7)	69 (0.7)	31 (0.7)	44 (1.1)	56 (1.1)	30 (1.1)	70 (1.1)
Poland	51 (0.9)	49 (0.9)	60 (1.0)	40 (1.0)	51 (1.5)	49 (1.5)	20 (1.0)	80 (1.0)
Romania	50 (1.3)	50 (1.3)	72 (1.1)	28 (1.1)	53 (5.2)	47 (5.2)	51 (4.3)	49 (4.3)
Serbia	51 (0.8)	49 (0.8)	83 (0.8)	17 (0.8)	55 (1.5)	45 (1.5)	56 (1.7)	44 (1.7)
Slovak Republic	48 (1.1)	52 (1.1)	79 (0.9)	21 (0.9)	50 (1.5)	50 (1.5)	39 (1.5)	61 (1.5)
Slovenia	49 (0.8)	51 (0.8)	78 (0.9)	22 (0.9)	47 (1.3)	53 (1.3)	39 (1.2)	61 (1.2)
Spain	50 (1.1)	50 (1.1)	70 (0.8)	30 (0.8)	49 (1.7)	51 (1.7)	35 (1.6)	65 (1.6)
Sweden[1]	50 (1.0)	50 (1.0)	62 (1.1)	38 (1.1)	45 (1.4)	55 (1.4)	22 (1.0)	78 (1.0)
ICCS 2022 average	49 (0.3)	51 (0.3)	70 (0.2)	30 (0.2)	49 (0.4)	51 (0.4)	38 (0.4)	62 (0.4)
Countries not meeting sample participation requirements								
Brazil	51 (0.8)	49 (0.8)	59 (1.0)	41 (1.0)	55 (1.1)	45 (1.1)	60 (1.4)	40 (1.4)
Denmark[1]	51 (1.0)	49 (1.0)	62 (1.1)	38 (1.1)	48 (1.5)	52 (1.5)	23 (1.3)	77 (1.3)
German benchmarking participant meeting sample participation requirements								
North Rhine-Westphalia	46 (1.0)	54 (1.0)	57 (1.3)	43 (1.3)	51 (1.2)	49 (1.2)	33 (1.3)	67 (1.3)
German benchmarking participant not meeting sample participation requirements								
Schleswig-Holstein	46 (1.9)	54 (1.9)	52 (2.0)	48 (2.0)	51 (1.4)	49 (1.4)	27 (1.9)	73 (1.9)

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

A.4 Item Maps

ICCS 2022 used sets of student, teacher, and school questionnaire items to measure constructs relevant in the field of civic and citizenship education. Usually, sets of Likert-type items with four categories (for example, "strongly agree," "agree," "disagree," and "strongly disagree") were used to obtain this information, but at times two-point or three-point rating scales were chosen (for example, "yes" and "no"; or "never," "sometimes," and "often"). The items were then recoded so that the higher scale scores reflected more positive attitudes or higher frequencies.

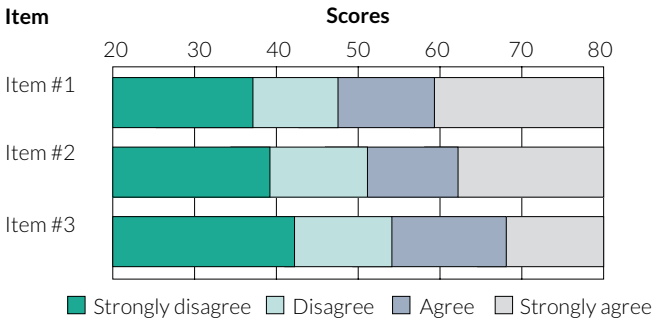
The Rasch Partial Credit Model (Masters & Wright, 1997) was used for scaling and the resulting weighted likelihood estimates (Warm, 1989) were transformed into a metric with a mean of 50 and a standard deviation of 10 for equally weighted ICCS 2022 national samples that satisfied guidelines for sample participation. For scales which were equated to ICCS 2016/2009, 50 and 10 are the respective averages and standard deviations for all countries that participated in the previous or first survey. More details on scaling and equating procedures will be provided in the ICCS 2022 technical report (Schulz et al., forthcoming).

The resulting ICCS 2022 scale scores can be interpreted regarding the average across countries participating in ICCS 2022 (or ICCS 2016/2009 in case scales were equated), but they do not reveal the extent to which students endorsed the items used for measurement. However, our application of the Rasch Partial Credit Model allows us to map scale scores to item responses. Thus, it is possible for each scale score to predict the most likely item response for a respondent. (For an application of these properties in the previous survey, see Schulz & Friedman, 2011, 2018).

In this appendix, A.4, item maps for each questionnaire scale presented in the report are provided. The maps provide a prediction of the minimum coded score (for example, 0 = "strongly disagree", 1 = "disagree", 2 = "agree" and 3 = "strongly agree") a respondent would obtain on a Likert-type item based on their questionnaire scale score. For example, for students with a certain scale score, one could predict that they would have a 50 percent probability of at least agreeing (or strongly agreeing) with a particular item (see example item in Fig. A.1). For each item, it is possible to determine Thurstonian thresholds, the points at which a minimum item score becomes more likely than any lower score and which determine the boundaries between item categories on the item map.

This information can also be summarized at the scale level by calculating the average thresholds across all the corresponding scaled items. For four-point Likert-type scales, this was typically done for the second threshold, making it possible to predict how likely it would be for a respondent with a certain scale score to have (on average across items) responses in the two lower or upper categories. Use of this approach in the case of items measuring agreement made it possible to distinguish between scale scores with which respondents were most likely to agree or disagree with the average item used for scaling.

In some of the reporting tables with national average scale scores, means are depicted as boxes that indicate their mean values plus/minus sampling error in graphical displays (for example, Table 4.2 in Chap. 4) that have two underlying colors. If national average scores are in the area in darker shaded area, on average across items students would have had responses in the respective lower item categories (for example, "disagree or strongly disagree," "not at all or not very interested," or "never or rarely"). If these scores are found in the lighter shaded area, then students' average item responses would have been in the upper item response categories (for example, "strongly agree or agree," "quite or very interested," or "sometimes or often") (Figs. A.1, A.2, A.3, A.4, A.5, A.6, A.7, A.8, A.9, A.10, A.11, A.12, A.13, A.14, A.15, A.16, A.17, A.18, A.19, A.20, A.21, A.22, A.23, A.24, A.25, A.26, A.27, A.28 and A.29).



Example of how to interpret the item map

#1:	A respondent with score 30 has more than 50% probability to strongly disagree with all three items
#2:	A respondent with score 40 has more than 50% probability not to strongly disagree with items 1 and 2 but to strongly disagree with item 3
#3:	A respondent with score 50 has more than 50% probability to agree with items 1 and to disagree with items 2 and 3
#4:	A respondent with score 60 has more than 50% probability to strongly agree with item 1 and to at least agree with items 2 and 3
#5:	A respondent with score 70 has more than 50% probability to strongly agree with all three items

Fig. A.1 Example of questionnaire item map

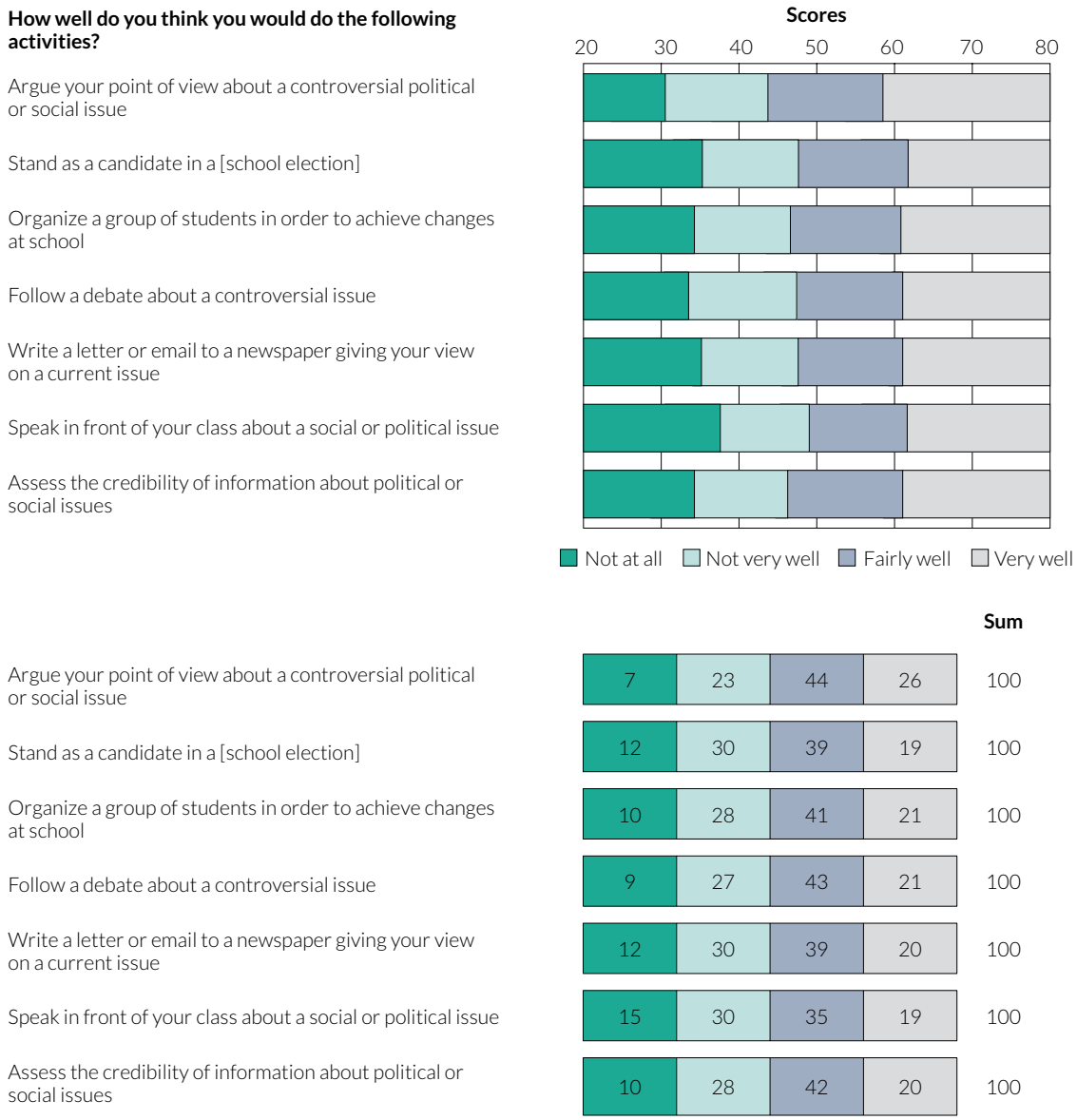


Fig. A.2 Item map for the scale reflecting students' citizenship self-efficacy

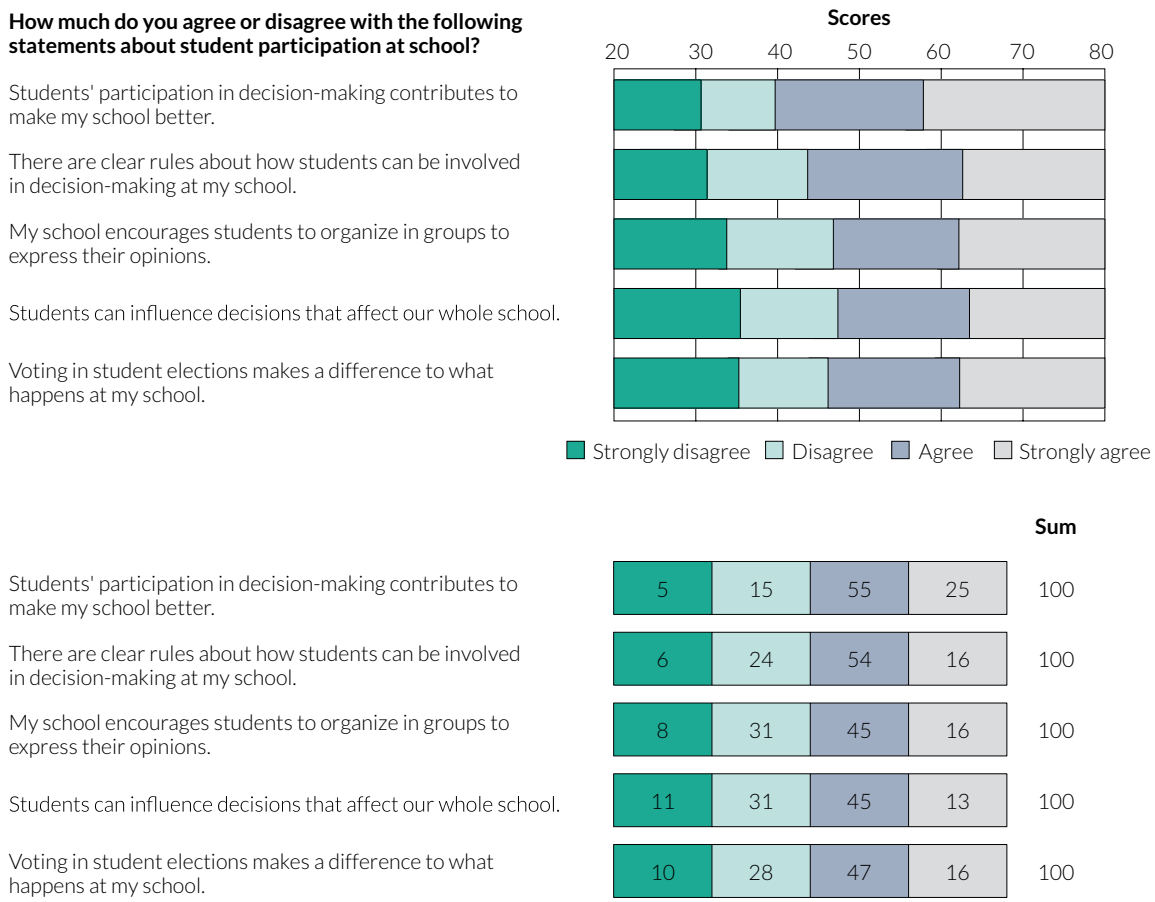


Fig. A.3 Item map for the scale reflecting students' beliefs about their influence on decision-making at school

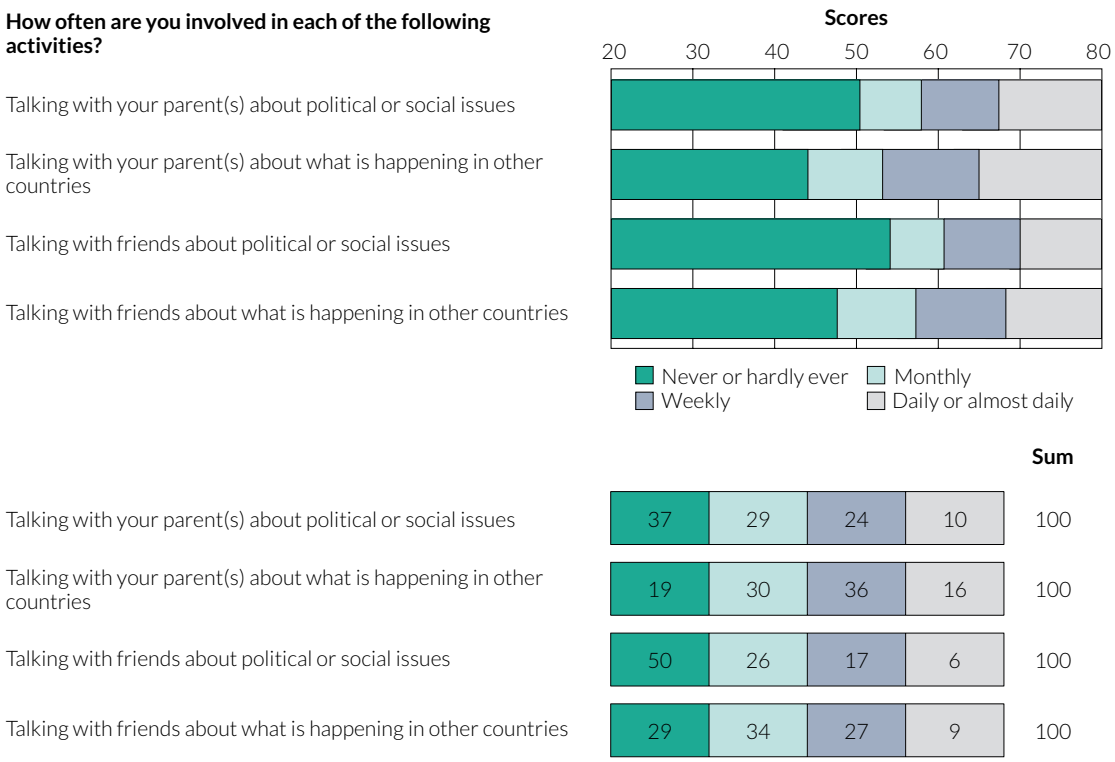


Fig. A.4 Item map for the scale reflecting students' discussion of political or social issues outside school

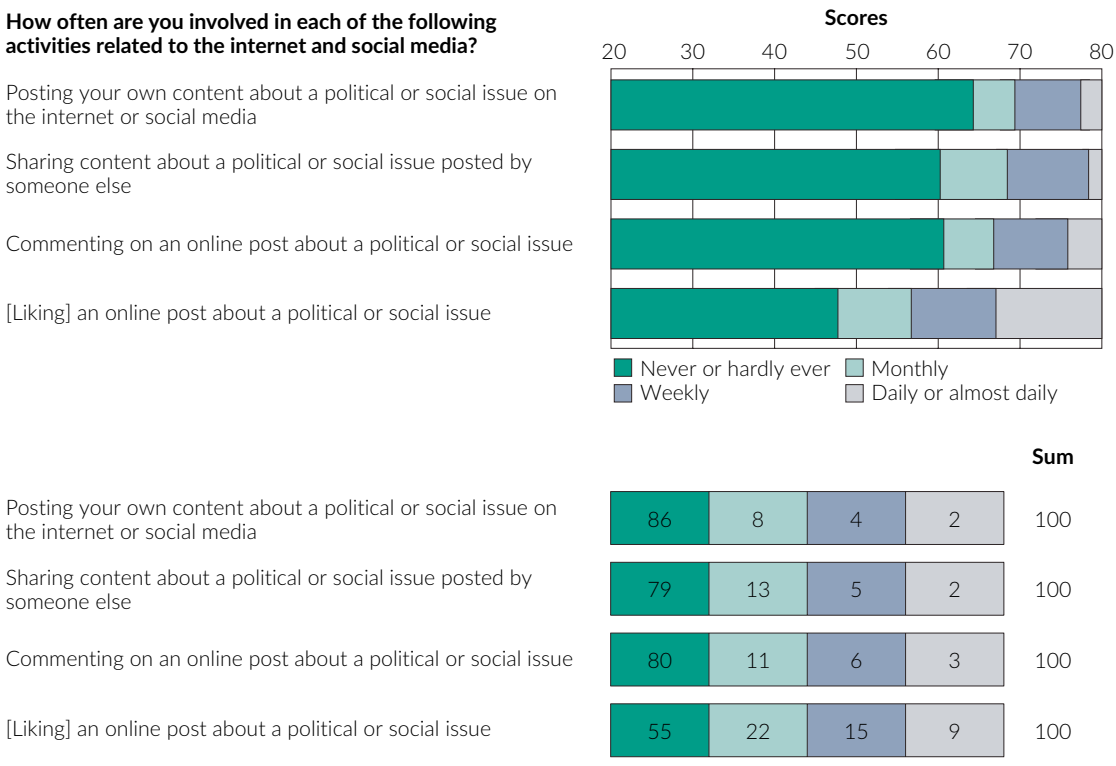


Fig. A.5 Item map for the scale reflecting students' engagement with political or social issues using digital media

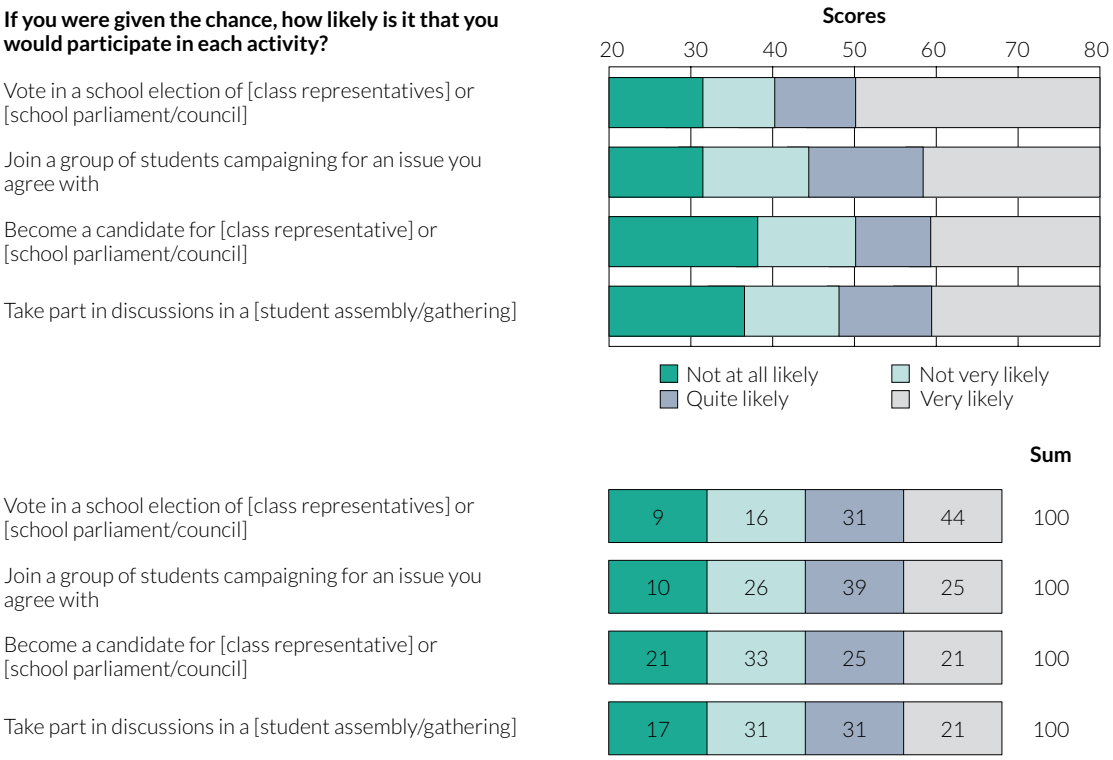


Fig. A.6 Item map for the scale reflecting students' willingness to participate in school activities

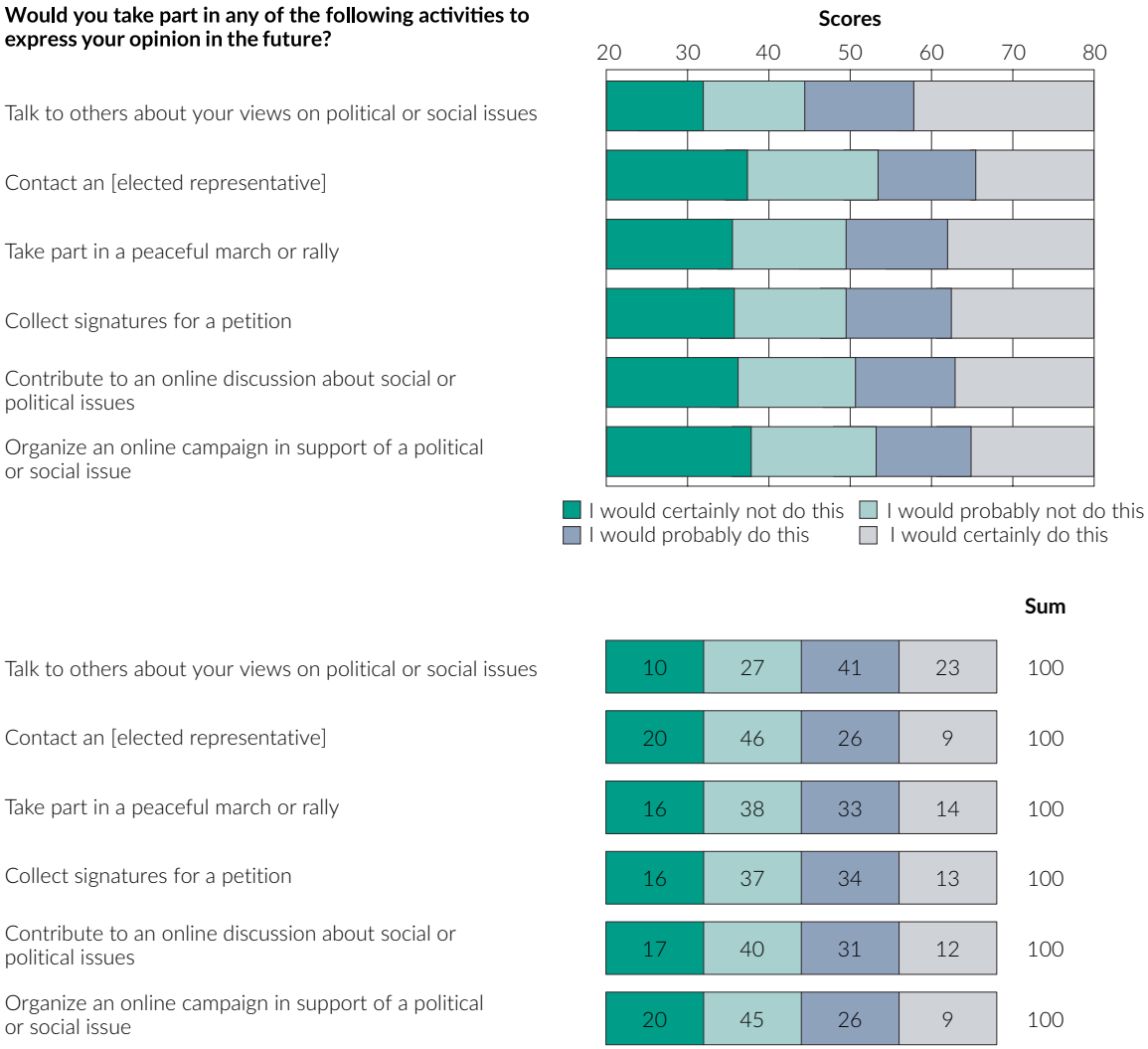


Fig. A.7 Item map for the scale reflecting students' expected participation in legal activities

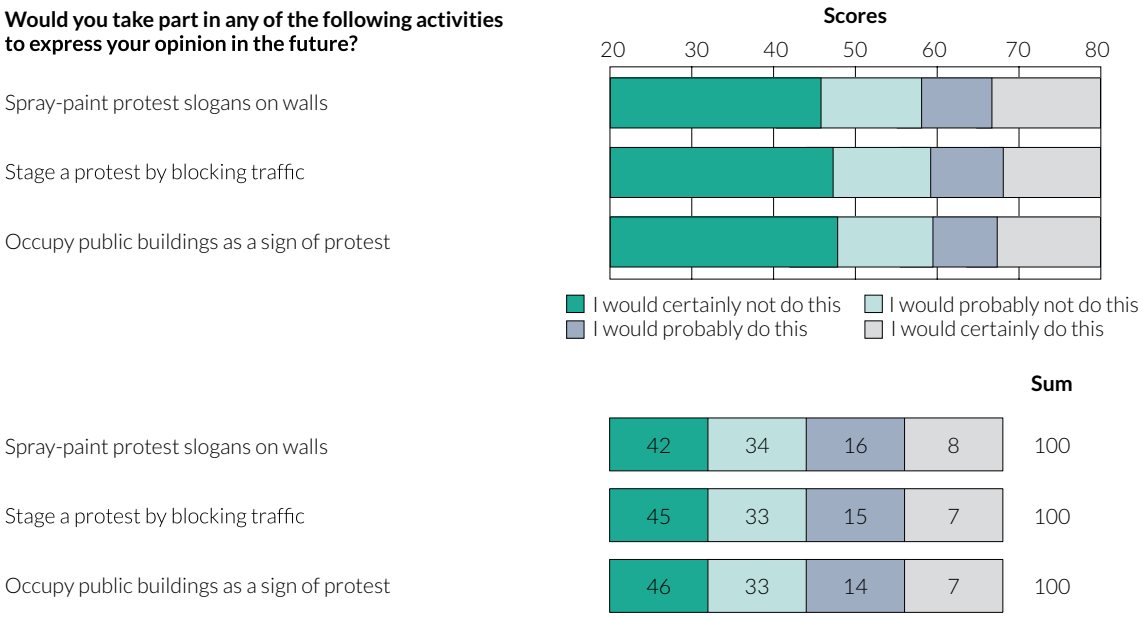


Fig. A.8 Item map for the scale reflecting students' expected participation in illegal protest activities

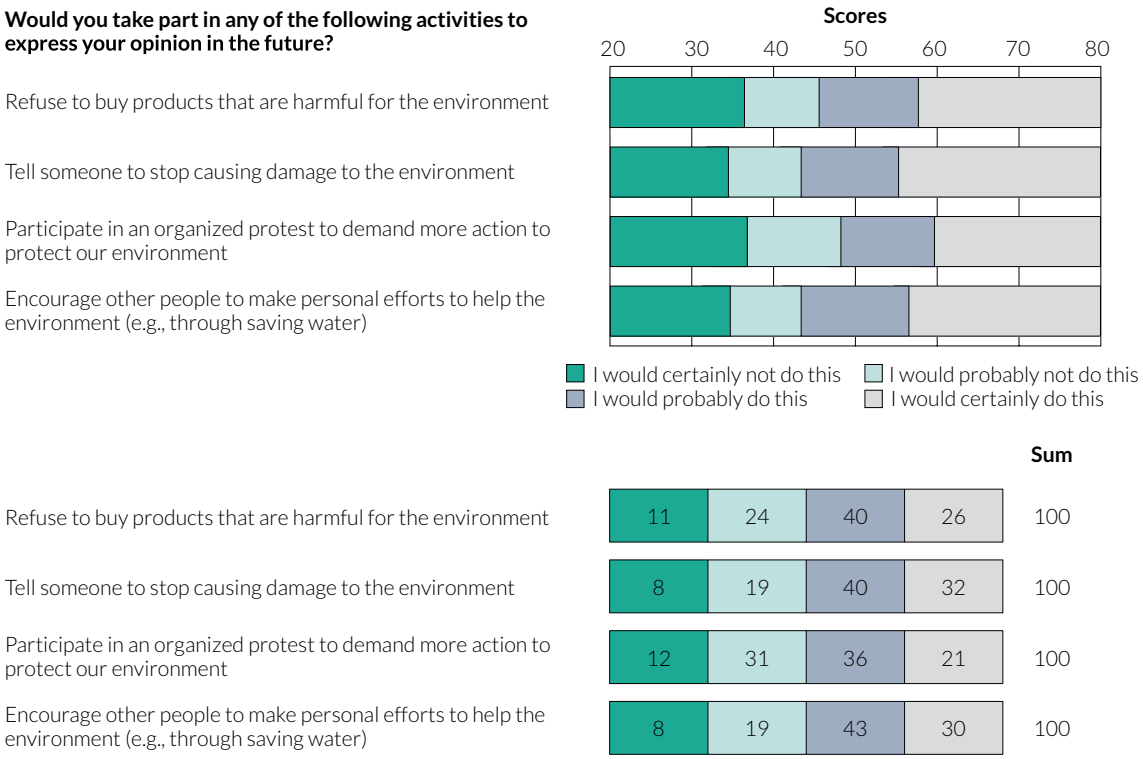


Fig. A.9 Item map for the scale reflecting students' expected participation in environmental protection activities

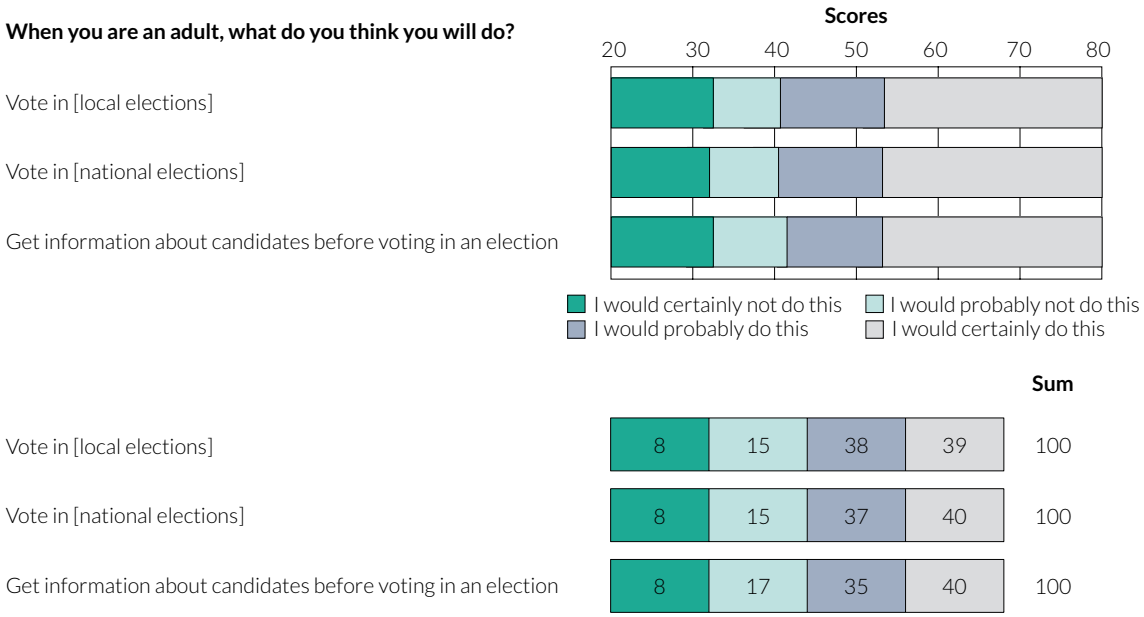


Fig. A.10 Item map for the scale reflecting students' expected electoral participation

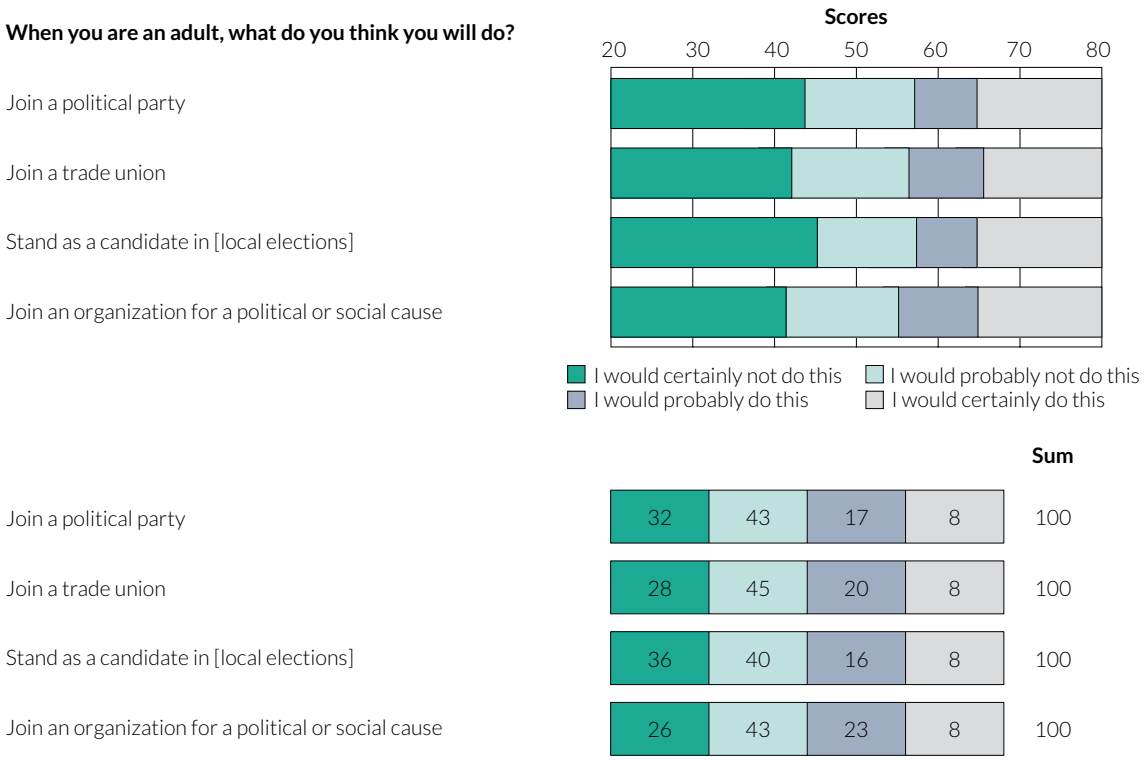


Fig. A.11 Item map for the scale reflecting students' expected active political participation

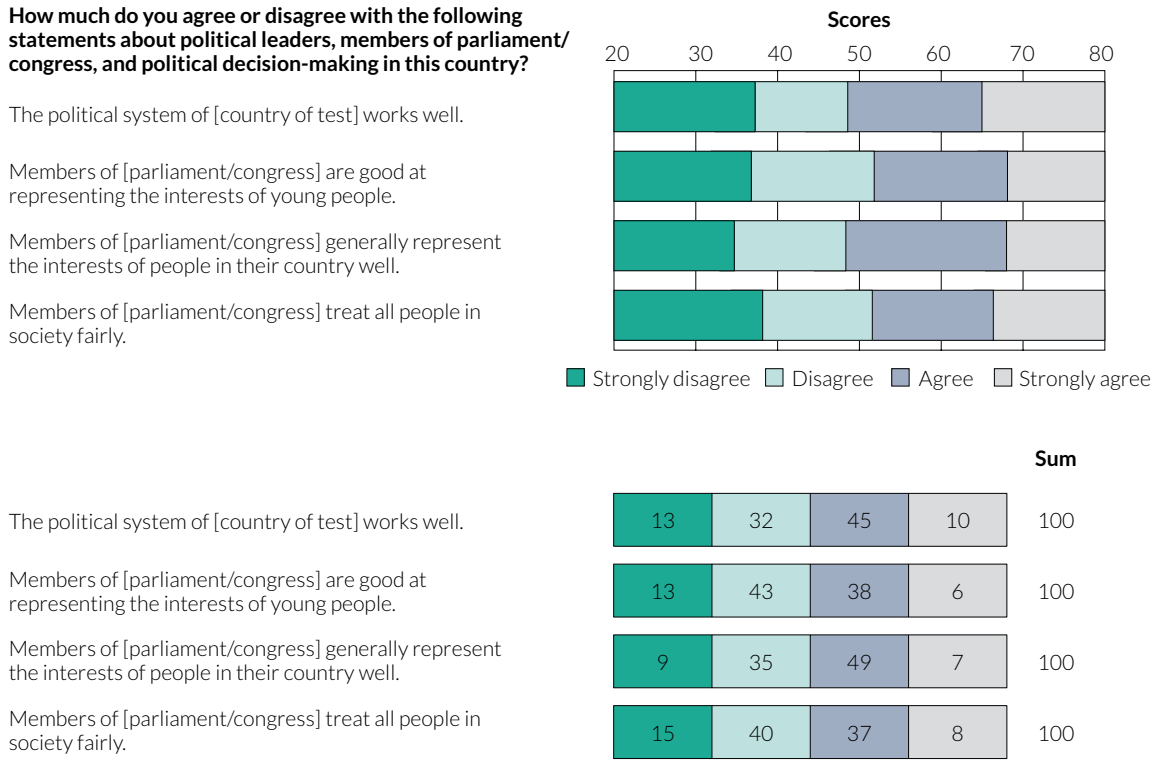


Fig. A.12 Item map for the scale reflecting students' satisfaction with the political system

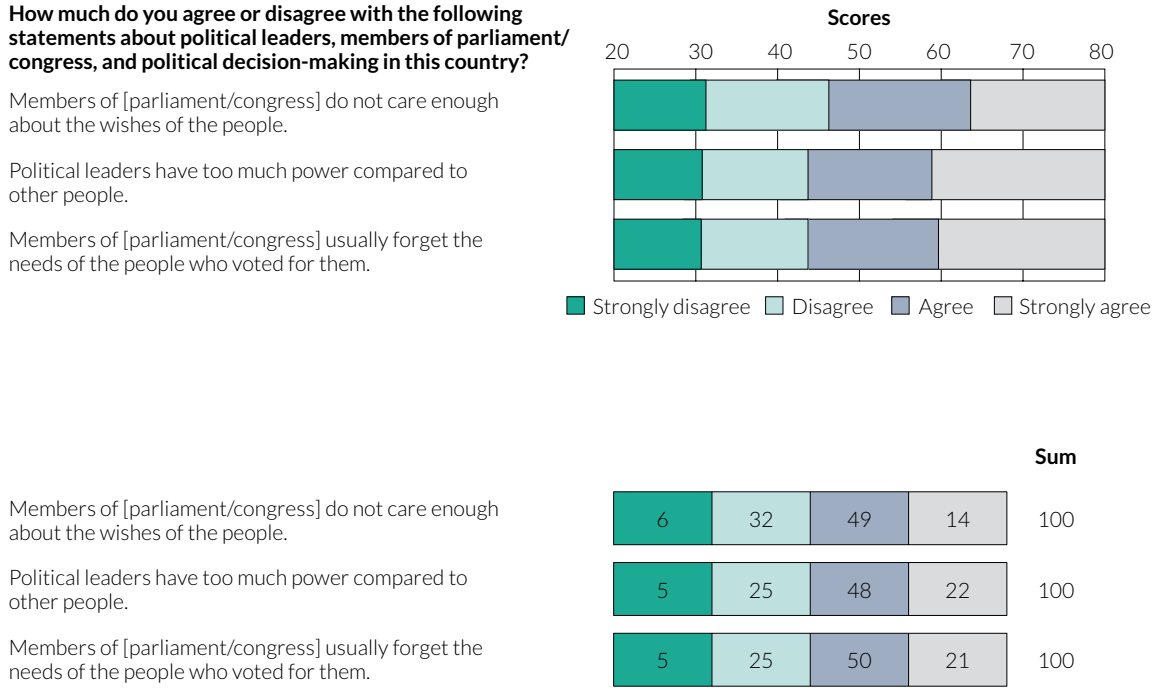


Fig. A.13 Item map for the scale reflecting students' critical views of the political system

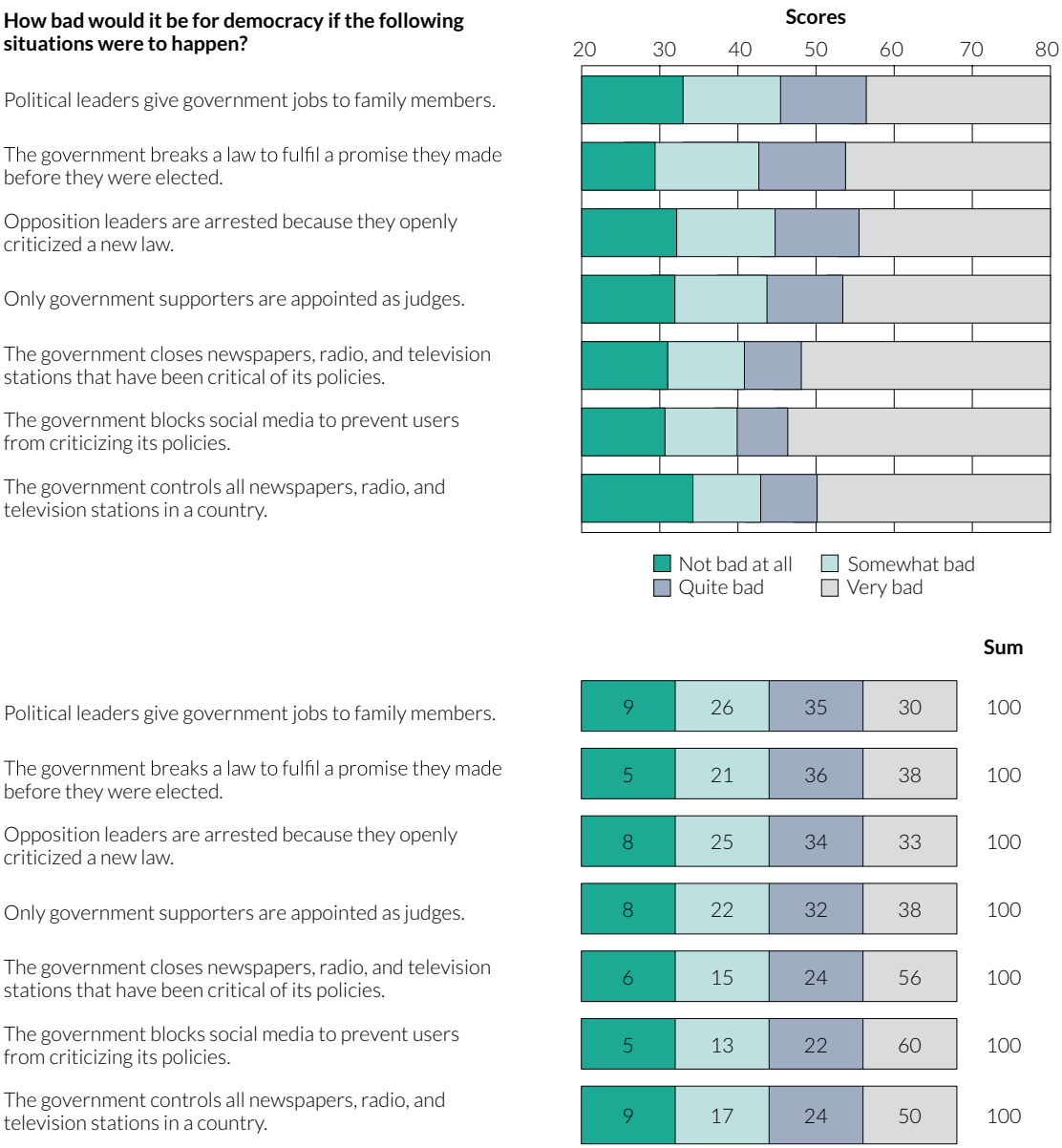


Fig. A.14 Item map for the scale reflecting students' beliefs about threats to democracy

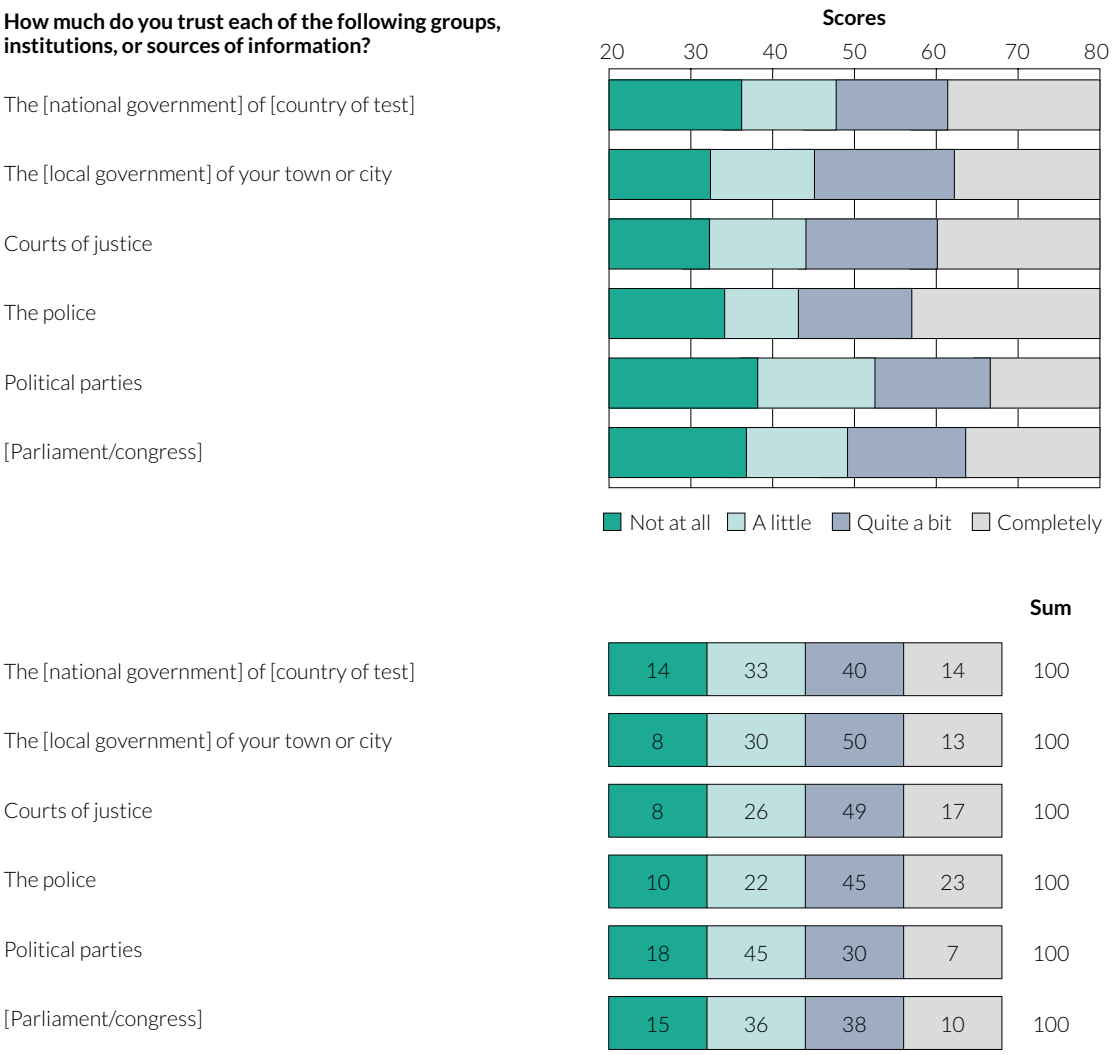


Fig. A.15 Item map for the scale reflecting students' trust in civic institutions

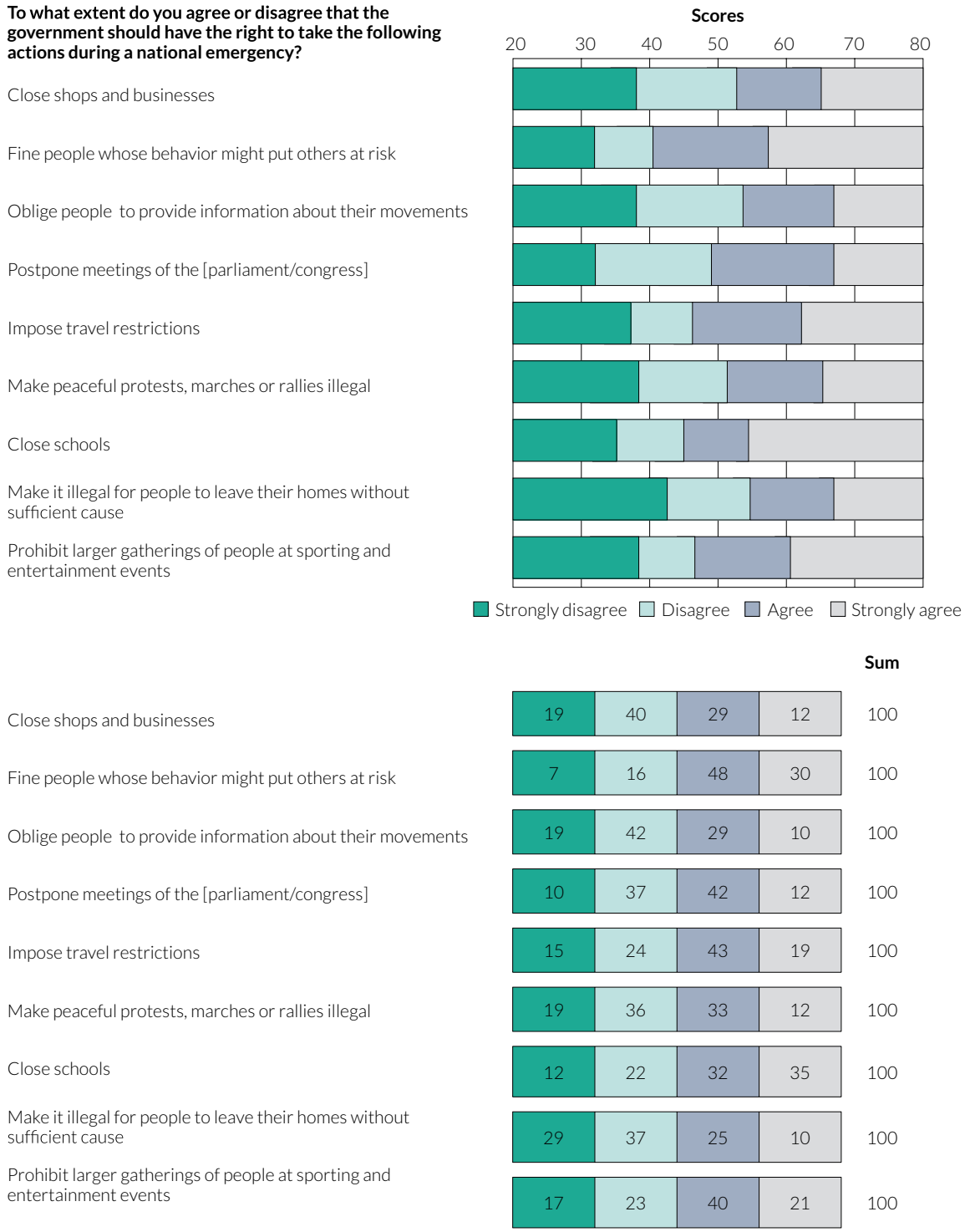


Fig. A.16 Item map for the scale reflecting students' endorsement of restrictions in a national emergency

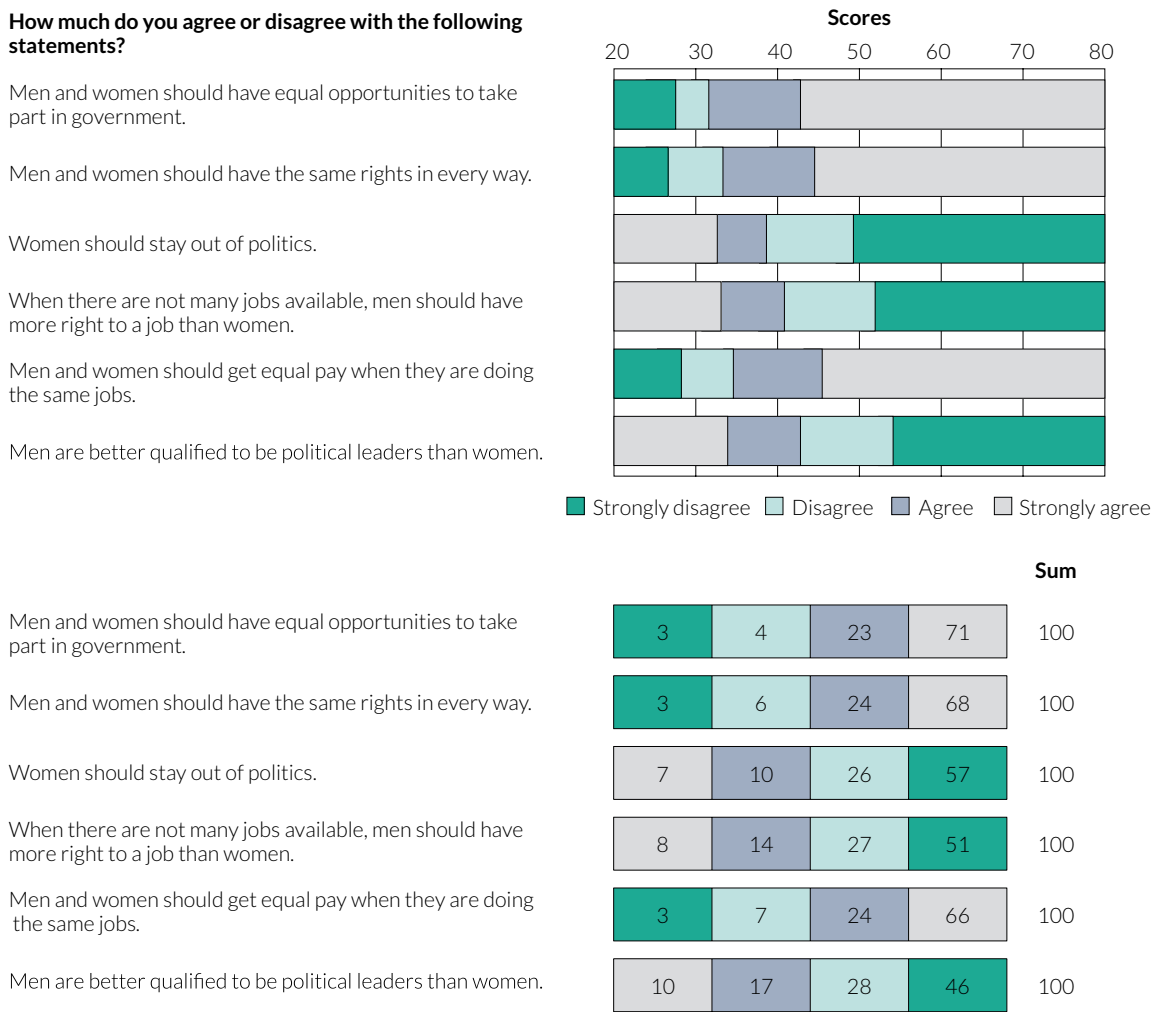


Fig. A.17 Item map for the scale reflecting students' endorsement of gender equality

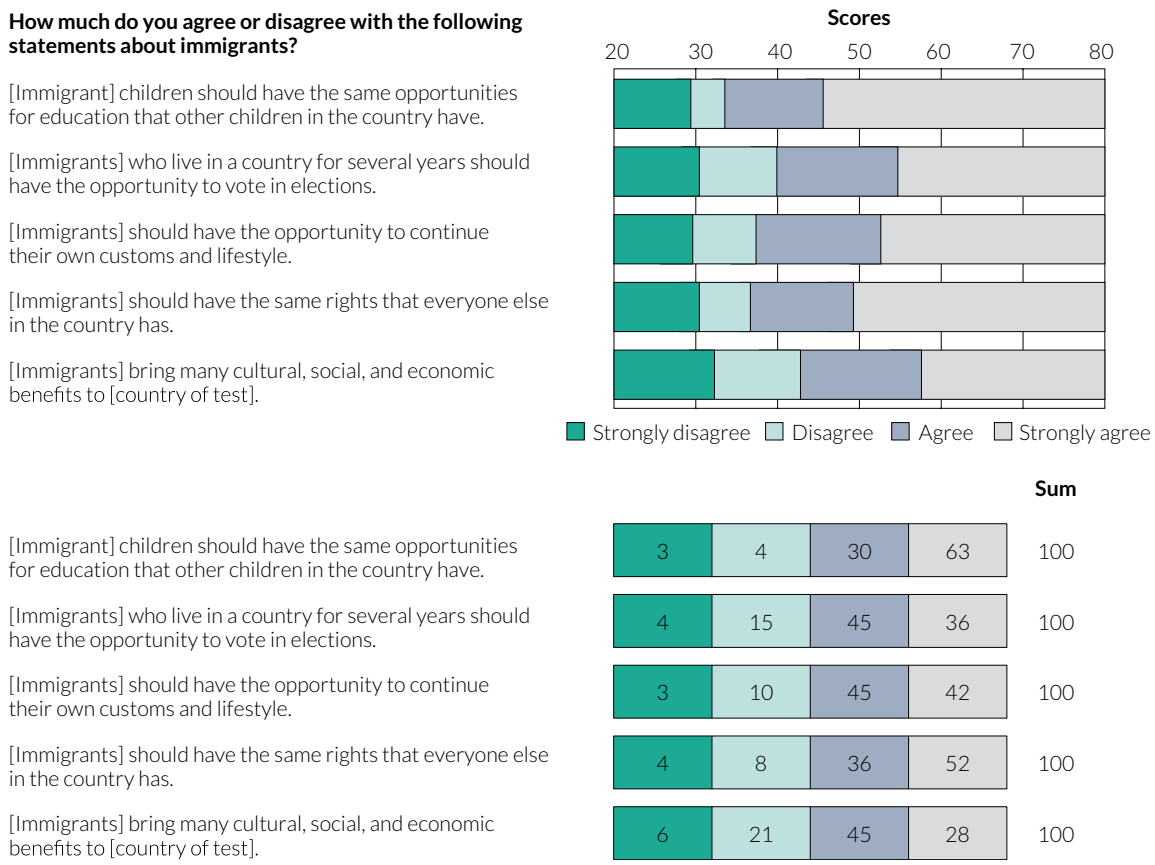


Fig. A.18 Item map for the scale reflecting students' positive attitudes toward immigrants

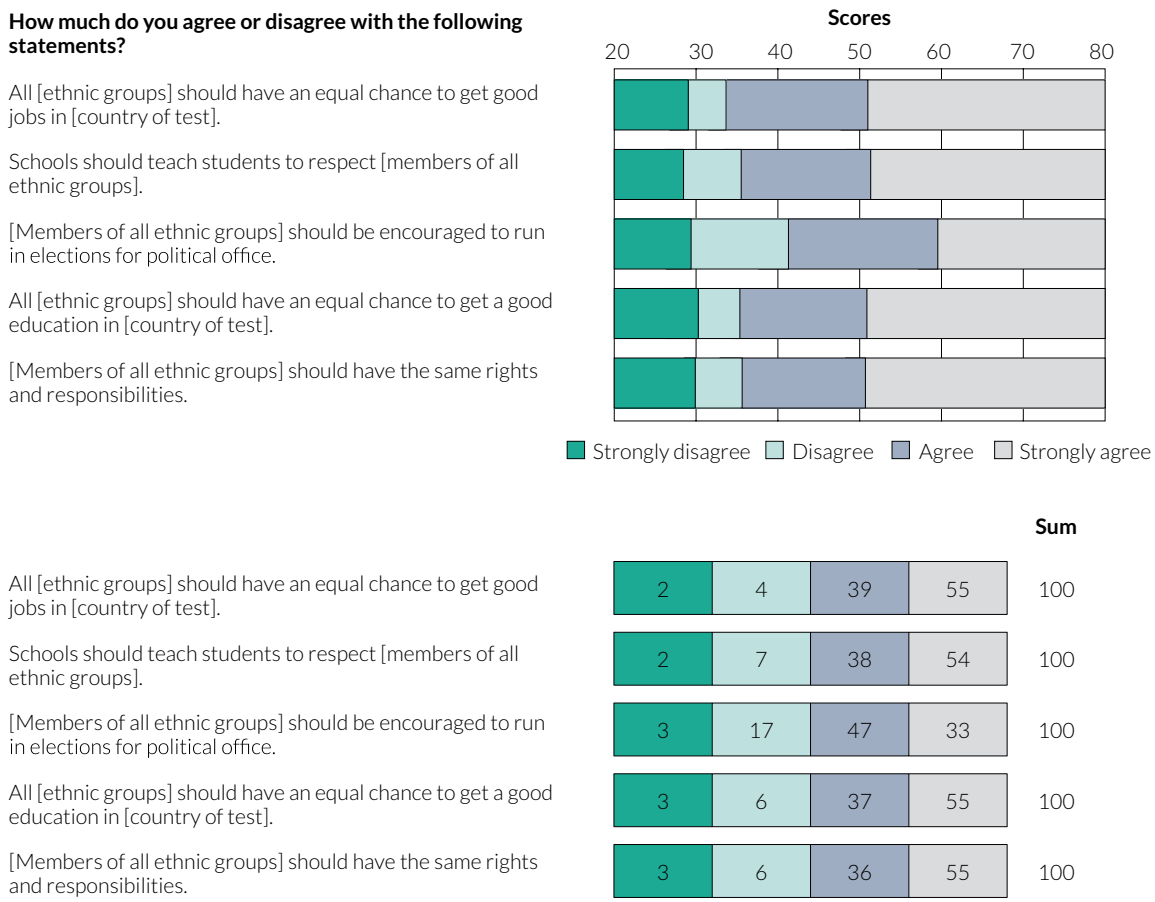


Fig. A.19 Item map for the scale reflecting students' endorsement of equal rights for all ethnic groups

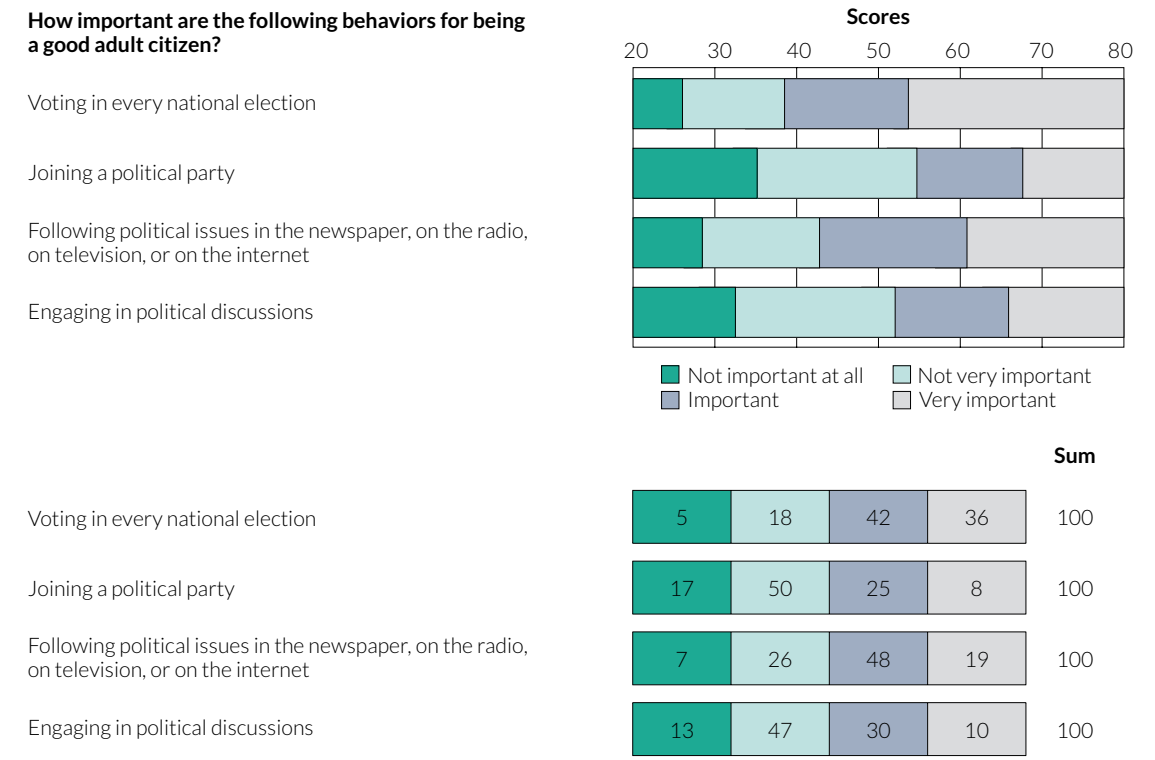


Fig. A.20 Item map for the scale reflecting students' beliefs about the importance of conventional citizenship behaviors

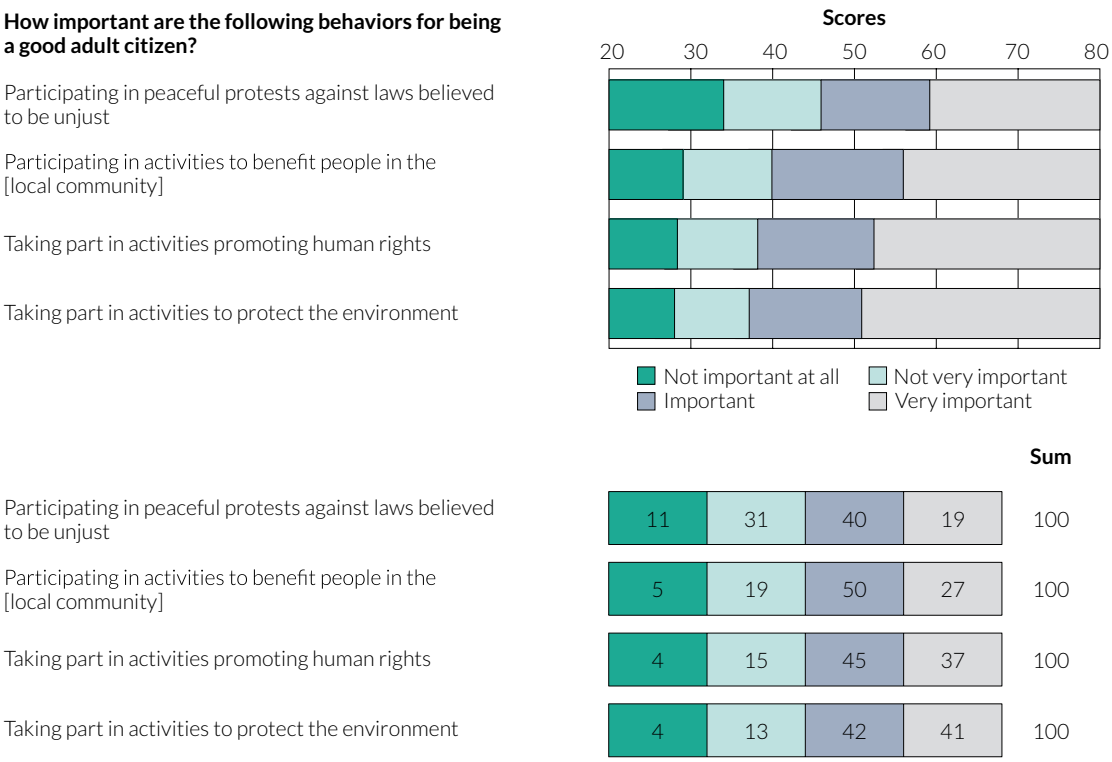


Fig. A.21 Item map for the scale reflecting students' beliefs about the importance of social-movement-related citizenship behaviors

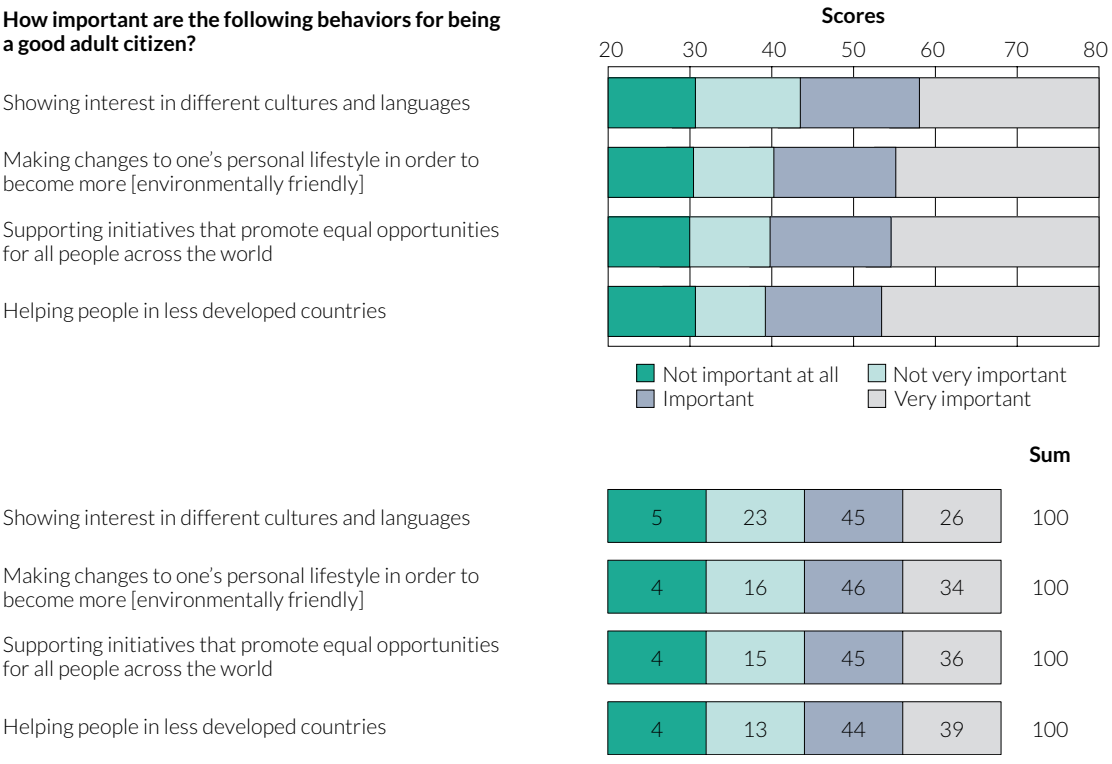


Fig. A.22 Item map for the scale reflecting students' beliefs about the importance of globally oriented citizenship behaviors

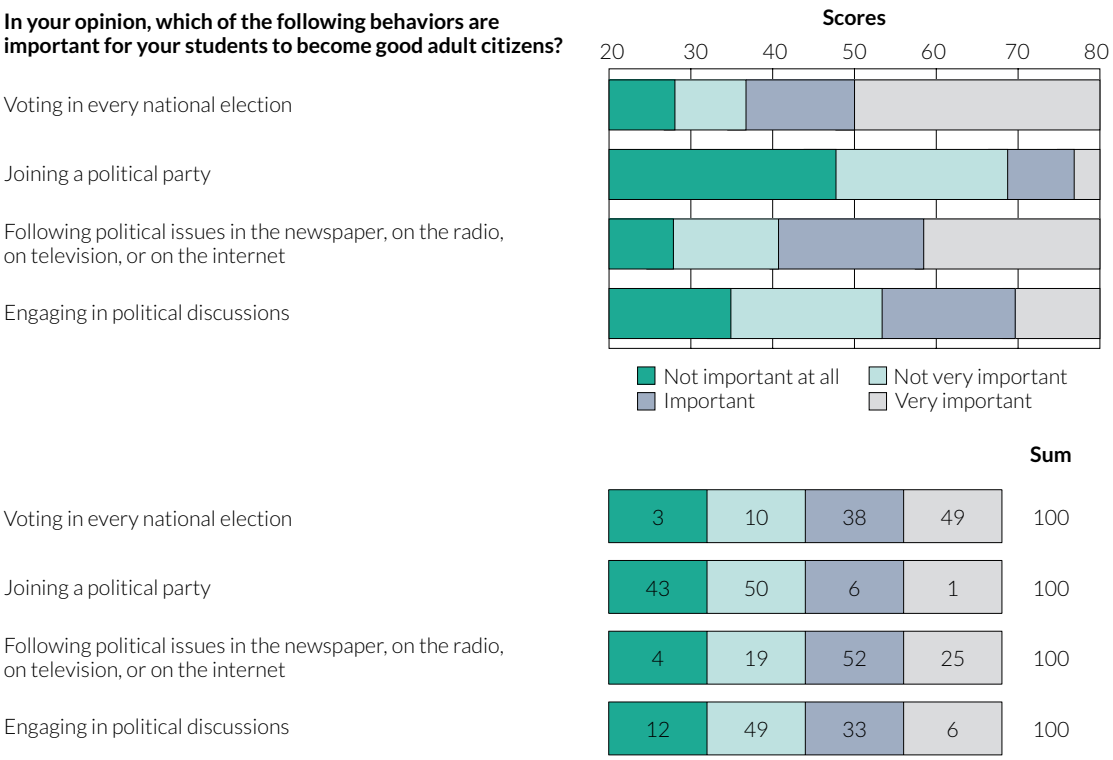


Fig. A.23 Item map for the scale reflecting teachers' perception of the importance of conventional citizenship behaviors

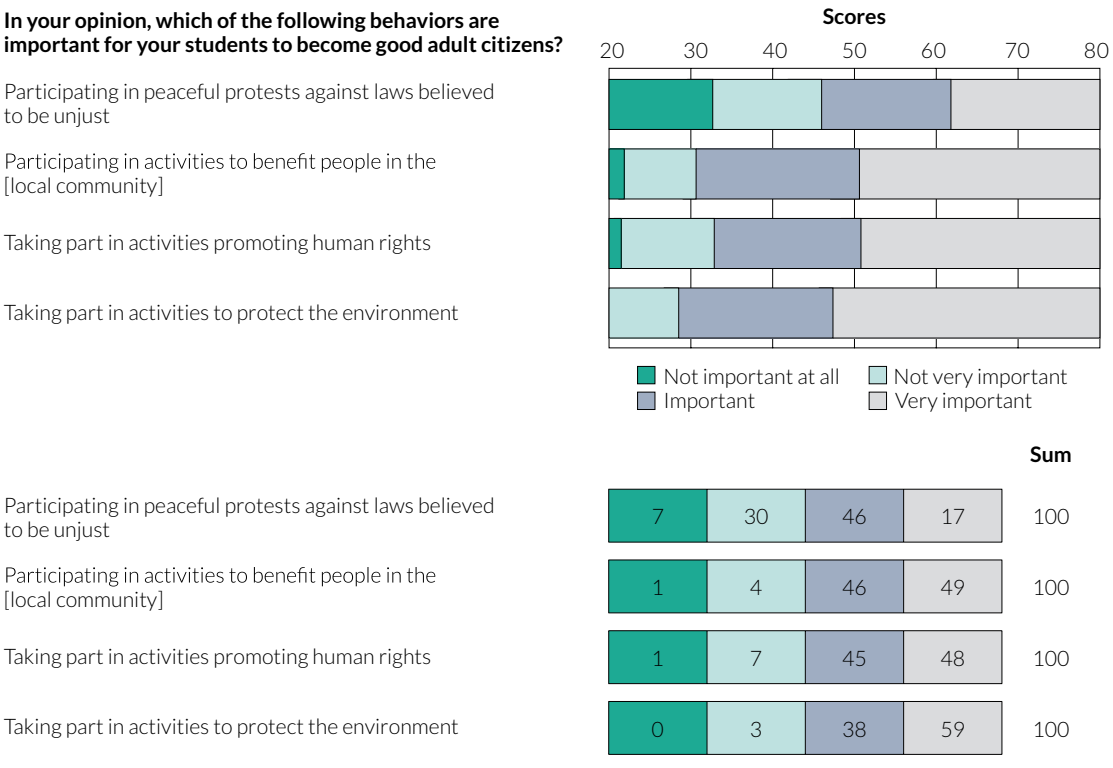


Fig. A.24 Item map for the scale reflecting teachers' perception of the importance of social-movement- related citizenship behaviors

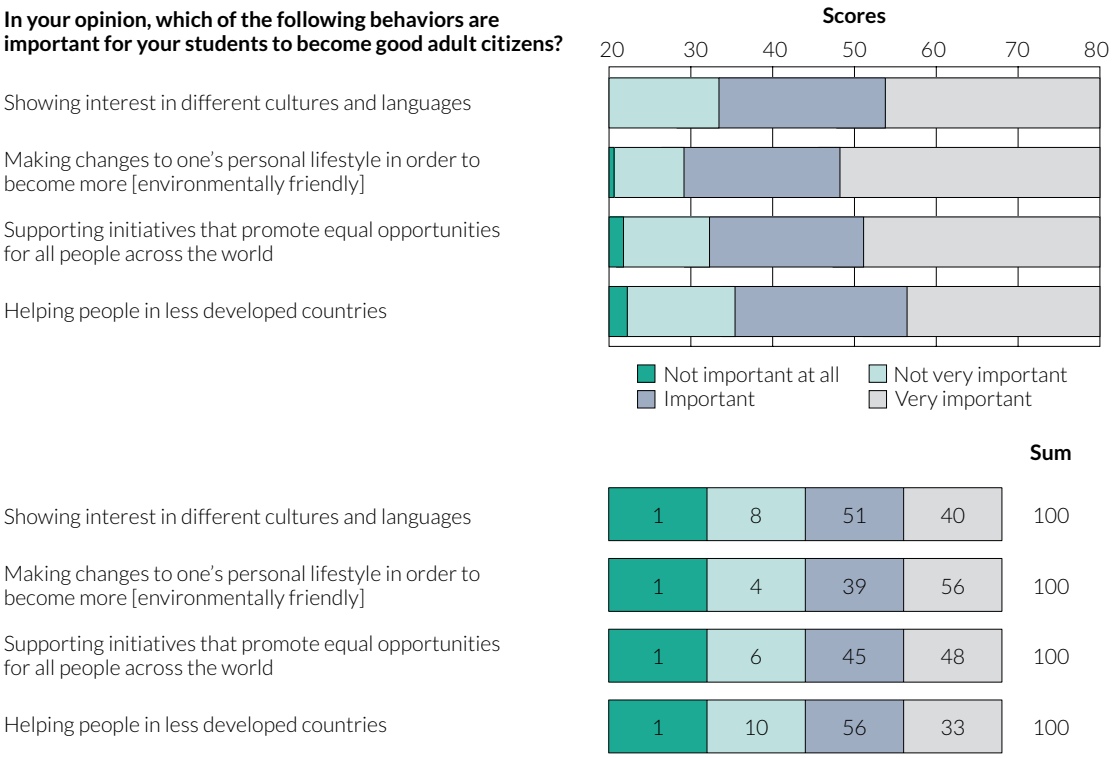


Fig. A.25 Item map for the scale reflecting teachers' perceptions of the importance of global citizenship behaviors

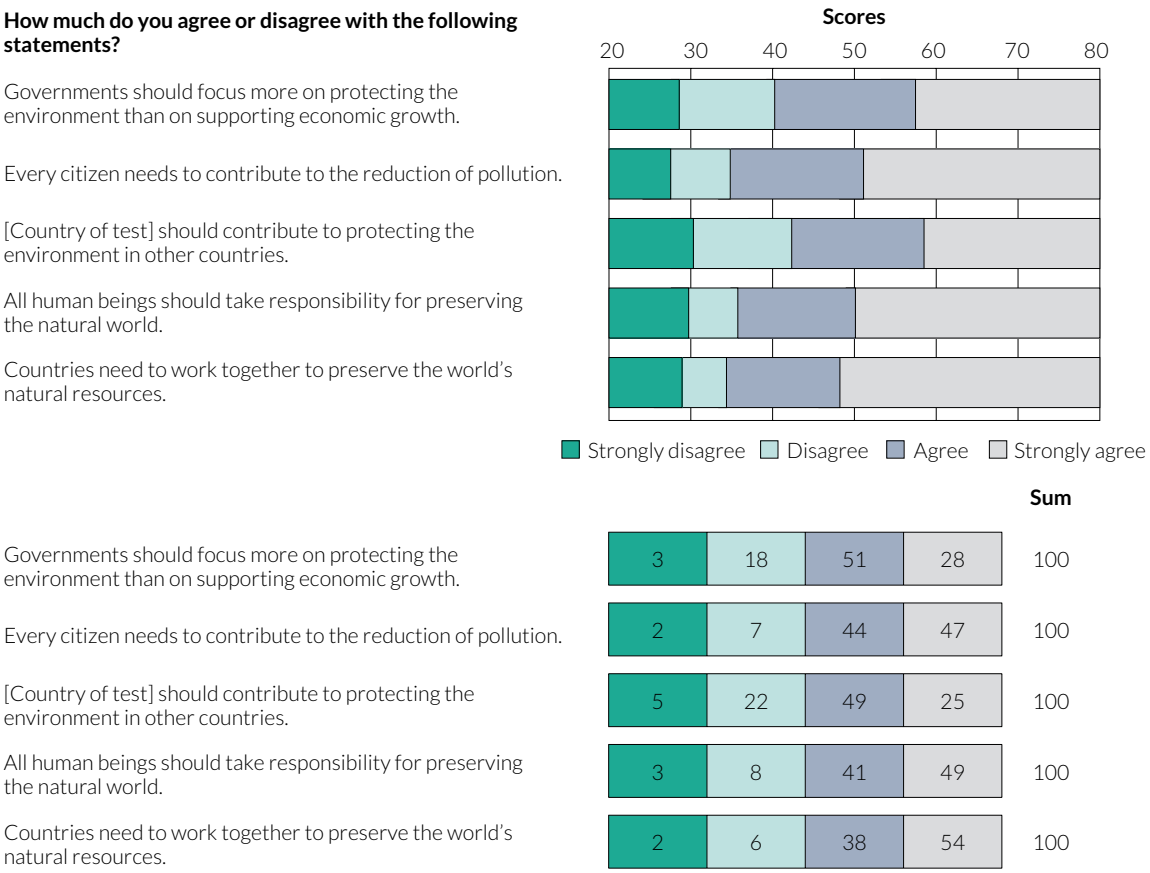


Fig. A.26 Item map for the scale reflecting students' positive attitudes toward environmental protection

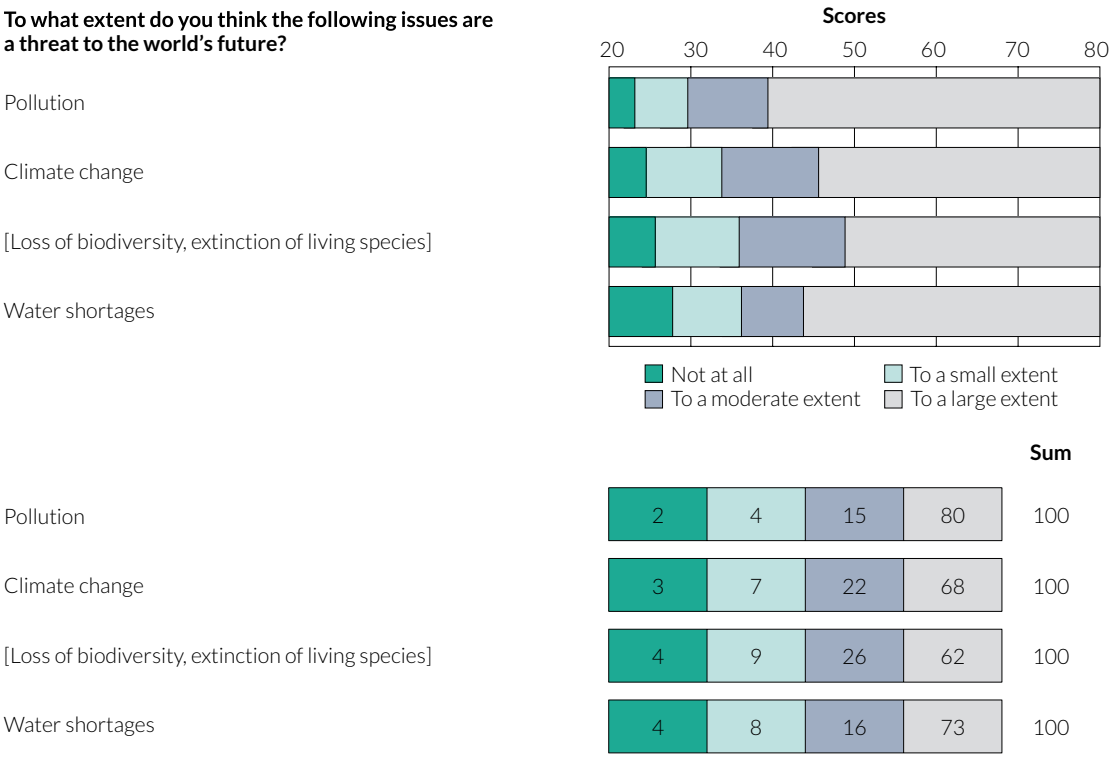


Fig. A.27 Item map for the scale reflecting students' concern about threats to the global environment

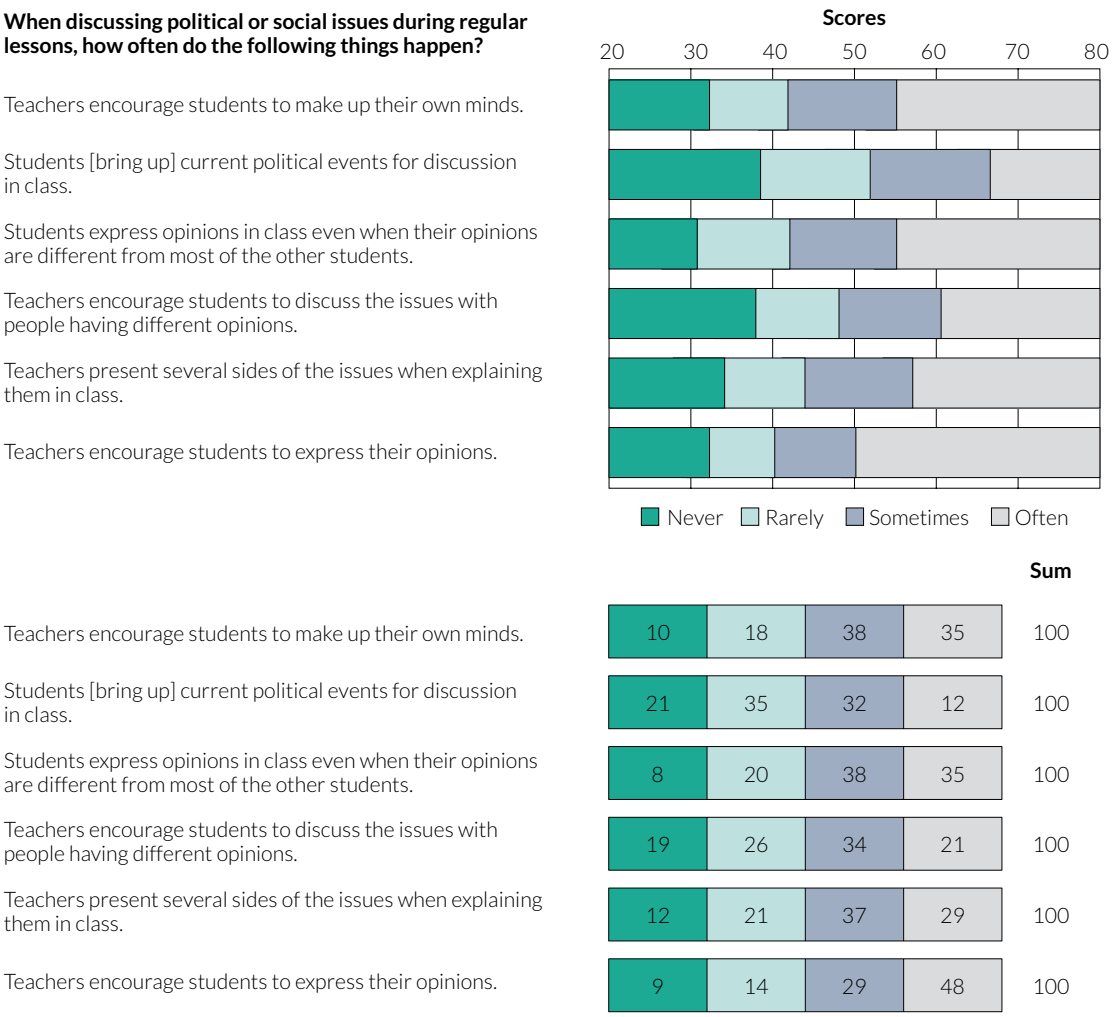


Fig. A.28 Item map for the scale reflecting students' perceptions of openness in classroom discussions

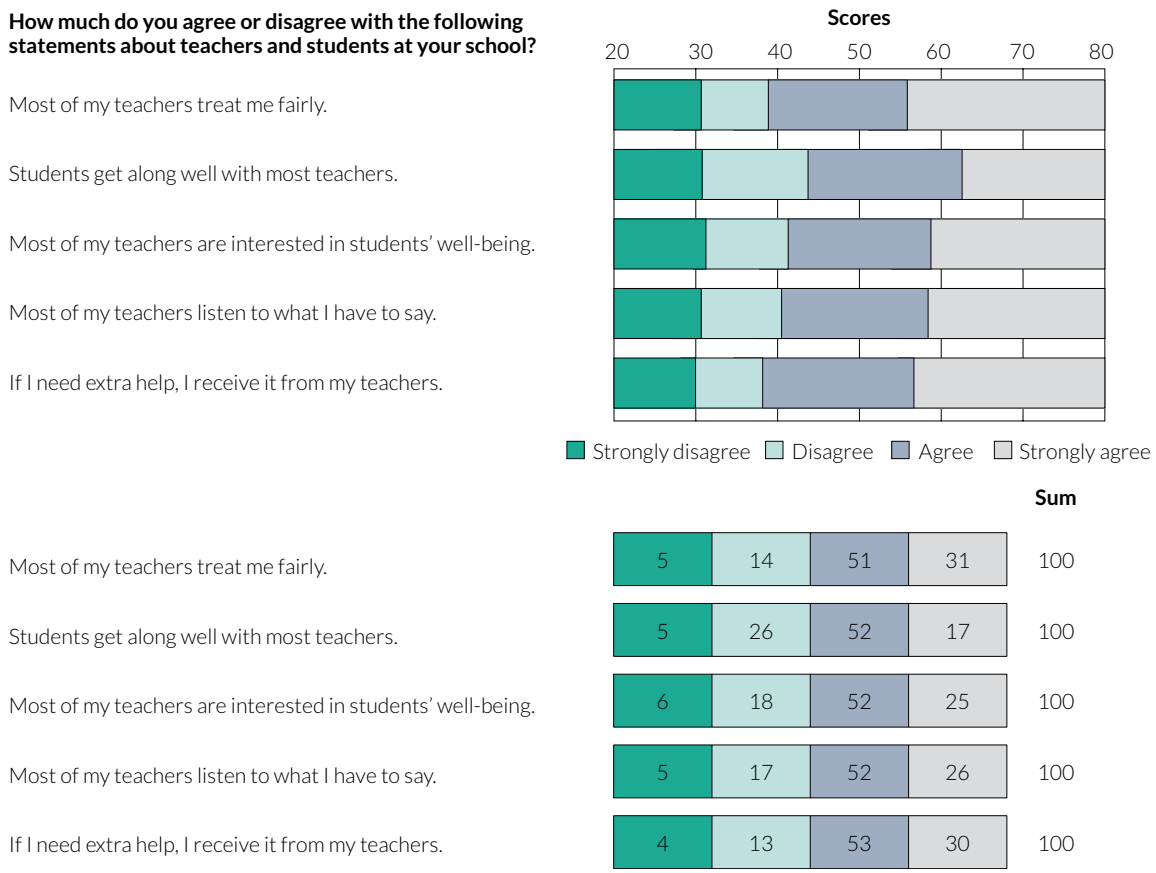


Fig. A.29 Item map for the scale reflecting students' perceptions of student–teacher relations at school

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A.5 Pair-Wise Comparisons of Civic Knowledge (Table A.6)

Table A.6 Pair-wise comparisons of average country civic knowledge scale scores

Country	Average scale score	Chinese Taipei	Sweden[1]	Poland	Estonia	Croatia[1]	Norway (9)[1]	Italy	Spain	Lithuania	Netherlands[1]†	France	Slovenia	Slovak Republic	Latvia[1]	Malta	Romania	Serbia	Cyprus	Bulgaria	Colombia
Chinese Taipei	583 (2.3)		▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Sweden[1]	565 (3.5)	▼		▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Poland	554 (2.5)	▼	▼			▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Estonia	545 (5.5)	▼	▼			▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Croatia[1]	531 (2.6)	▼	▼	▼	▼				▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Norway (9)[1]	529 (2.8)	▼	▼	▼	▼				▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Italy	523 (3.6)	▼	▼	▼	▼				▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Spain	510 (3.3)	▼	▼	▼	▼	▼	▼	▼							▲	▲	▲	▲	▲	▲	▲
Lithuania	509 (4.0)	▼	▼	▼	▼	▼	▼	▼							▲	▲	▲	▲	▲	▲	▲
Netherlands[1]†	508 (4.1)	▼	▼	▼	▼	▼	▼	▼							▲	▲	▲	▲	▲	▲	▲
France	508 (3.3)	▼	▼	▼	▼	▼	▼	▼							▲	▲	▲	▲	▲	▲	▲
Slovenia	504 (2.3)	▼	▼	▼	▼	▼	▼	▼							▲		▲	▲	▲	▲	▲
Slovak Republic	501 (3.3)	▼	▼	▼	▼	▼	▼	▼							▲		▲	▲	▲	▲	▲
Latvia[1]	490 (2.8)	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼			▲	▲	▲	▲	▲
Malta	490 (7.4)	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼						▲	▲	▲	▲
Romania	470 (9.1)	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼						
Serbia	464 (3.4)	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼					▲
Cyprus	459 (2.5)	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼					
Bulgaria	456 (4.6)	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼					
Colombia	452 (3.8)	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼		▼			

Notes:
Because results are rounded to the nearest whole number, some aggregate statistics may appear inconsistent.
() Standard errors appear in parentheses.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Nearly met guidelines for sampling participation rates only after replacement schools were included.
[1] National defined population covers 90% to 95% of national target population.

A.6 Organizations and Individuals Involved in ICCS 2022

International Study Center

The international study center is located at the Australian Council for Educational Research (ACER). ACER were responsible for designing and implementing the study in close cooperation with LPS (Laboratorio di Pedagogia Sperimentale at the Roma Tre University, Rome) and LUMSA University of Rome, and IEA.

Staff at ACER

Wolfram Schulz, *international study director*
Tim Friedman, *project coordinator*
John Ainley, *project researcher*
Laila Helou, *project researcher*
Dulce Lay, *data analyst*
Greg Macaskill, *data analyst*
Judy Nixon, *test development*
Naoko Tabata, *project researcher*
Renee Kwong, *data analyst*
Louise Ockwell, *data analyst*
Meredith Bramich, *project administration*

Staff at LPS/LUMSA University of Rome

Bruno Losito, *associate research co-director*
Gabriella Agrusti, *associate research co-director*
Valeria Damiani, *project researcher*
Carlo Di Chiacchio, *data analyst*
Elisa Caponera, *data analyst*
Laura Palmerio, *data analyst*

International Association for the Evaluation of Educational Achievement (IEA)

IEA provides overall support for the coordination of ICCS 2022 from both the Amsterdam and Hamburg offices. Staff at IEA Amsterdam are responsible for the coordination of translation verification, quality control monitoring, and the publication and wider dissemination of the report. Staff at IEA Hamburg are responsible for the coordination of sampling procedures, and data management and processing.

Staff at IEA Amsterdam

Julian Fraillon, *coordinator of test development*
Dirk Hastedt, *executive director*
Andrea Netten, *director at IEA Amsterdam*
Jan-Peter Broek, *financial manager*
Jan-Philip Wagner, *research officer*
Jasmin Schiffer, *graphic designer*
Katerina Hartmanova, *junior research officer*
Katie Hill, *head of communications*
Lauren Musu, *senior research officer*
Philippa Elliott, *publications manager*

Staff at IEA Hamburg

Hannah Kowolik, *international data manager*
Falk Brese, *international data manager*
Yasin Afana, *international data manager*

Christine Busch, *deputy international data manager*
Ralph Carstens, *senior research advisor*
Diego Cortes, *senior sampling statistician*
Umut Atasever, *research analyst*
Sabine Weber, *research analyst*

ICCS 2022 Project Advisory Committee (PAC)
The ICCS 2022 PAC has, from the beginning of the project, advised the international study center and its partner institutions during regular meetings.

Babara Malak-Minkiewicz, *IEA Amsterdam* (retired), the Netherlands
Cristián Cox, *Diego Portales University*, Chile
Erik Amnå, *Örebro University*, Sweden
Judith Torney-Purta, *University of Maryland*, United States
Wiel Veugelers, *The University of Humanistic Studies Utrecht*, the Netherlands

Other Project Advisors

ICCS 2022 Sampling Referee
Marc Joncas is the sampling referee for the study, providing invaluable advice on all sampling-related aspects of the study.

Expert Consultant
Christian Monseur (*University of Liège,* Belgium) conducted a review of link items and mode effects for cognitive test items. He provided support and invaluable advice for the implementation of equating and mode effect adjustment procedures for the cognitive data of the ICCS 2022 main survey.

ICCS 2022 National Research Coordinators
The national research coordinators played a crucial role in the study's development. They provided policy- and content-oriented advice on developing the instruments and were responsible for the implementation of ICCS 2022 in the participating countries.

Brazil
Maribel Alves Fierro Sevilla
The Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (INEP)

Bulgaria
Natalia Vassileva
Center for Control and Assessment of the Quality in School Education

Chinese Taipei
Meihui Liu
National Taiwan Normal University (NTNU)

Colombia
Natalia González Gómez
Julie Paola Caro Osorio
Colombian Institute for the Assessment of Education (ICFES)

Croatia
Ines Elezović
Department for Quality Assurance in Education, National Centre for External Evaluation of Education

Cyprus
Yiasemina Karagiorgi
Centre for Educational Research and Evaluation

Denmark
Jens Bruun
Danish School of Education, Aarhus University

Estonia
Meril Ümarik
Tallin University

France
Elodie Persem
Marion Le Cam
Ministry of National Education

Germany (North Rhine-Westphalia and Schleswig-Holstein)
Hermann Josef Abs
University of Duisburg-Essen

Katrin Hahn-Laudenberg
Bergische Universität Wuppertal

Italy
Laura Palmerio
INVALSI (Istituto nazionale per la valutazione del sistema educativo di istruzione e di formazione)

Latvia
Ireta Ċekse
University of Latvia

Lithuania
Lina Pareigiene
National Agency for Education

Malta
Jude Zammit
Louis Scerri
Ministry for Education and Employment

Netherlands
Remmert Daas
University of Amsterdam

Norway
Oddveig Storstad
Department of Teacher Education, Norwegian University of Science and Technology (NTNU)

Poland
Olga Wasilewska
Educational Research Institute (IBE)

Romania
Catalina Ulrich
University of Bucharest

Serbia
Tanja Trbojević
Institute for Education Quality and Evaluation

Slovak Republic
Gabriella Kopas
Kristina Čevorová
National Institute for Certified Educational Measurements

Slovenia
Eva Klemenčič-Mirazchiyski
Educational Research Institute

Spain
Ricardo Callejo Martínez
Gala Ríos Junquera
INEE (Instituto Nacional de Evaluación Educativa)

Sweden
Maria Axelsson
Ellen Almgren
Swedish National Agency for Education