

International Civic and Citizenship Education Study

The International Civic and Citizenship Education Study (ICCS) investigates the ways in which young people are prepared to undertake their roles as citizens. It is directed by the International Association for the Evaluation of Educational Achievement (IEA).

Origins and context

The IEA was founded in 1958. It has evolved from a collective of research bodies into a professional organisation with a secretariat based in Amsterdam, the Netherlands, and a centre devoted to data processing and research based in Hamburg, Germany. Beyond this professional organisation, IEA has over 70 members that are governmental and non-governmental educational research institutions from countries in Africa, Asia, Australasia, Europe, the Middle East and the Americas. Most of the members represent national education systems. IEA also maintains funding and non-funding partnerships (IEA, n.d.-a).¹

According to IEA's founders, the different education systems across the world together form a kind of educational laboratory, and comparative research into these different systems can reveal important relationships between inputs and outcomes, relationships that would not necessarily be detected if any one system were studied in isolation (IEA, 2014).

IEA studies seek to understand the processes and products of education by administering cognitive

assessments and collecting background data to examine the *intended curriculum*, the *implemented curriculum* and the *attained curriculum* (IEA, n.d.-a). The intended curriculum is concerned with the national, social and educational contexts. It covers what is described in curriculum policies and publications, and how the education system is structured to facilitate the learning that is described in these policies and publications. The implemented curriculum is concerned with the school, teacher and classroom contexts. It covers what is actually taught in the classrooms and how it is taught, including the characteristics of the individuals who are teaching. The attained curriculum is concerned with the learning outcomes and characteristics of students. It covers what students learn, what they think about what they learn, and their backgrounds (Mullis & Martin, 2013).

This three-aspect concept of the curriculum has been used in many of the 30 comparative research studies IEA has conducted since its inception.

ICCS was first implemented in 2009 with a follow-up assessment in 2016 and one in progress for 2022.

ICCS built on the previous IEA studies of civic education. In 1971, the IEA Civic Education Study surveyed 14-year-olds in nine countries. In 1999, the IEA CIVED study assessed 14-year-old students in 28 countries, as well as older students, 16 to 18 years of age, in 16 countries (Schulz, Ainley, & Freidman, 2013).

Purpose

ICCS identifies and monitors students' knowledge, attitudes and activities related to civic and citizenship education. The study is grounded in core themes in civic and citizenship education such as young people's understanding of civic principles and institutions, their knowledge of how to engage in civil society, exercise critical judgment, and their understanding and appreciation of the rights and responsibilities

¹ Some of IEA's recent funding partnerships have been with the European Commission, the Ford Foundation, the Inter-American Development Bank, the United Nations Development Program and the World Bank. Its non-funding partnerships include those with the Educational Testing Service (ETS), UNESCO's International Institute for Educational Planning (IIEP UNESCO), Organization of Ibero-American States (OEI), Partnership for Educational Revitalization in the Americas (PREAL), Programme d'Analyse des Systèmes Educatifs CONFEMEN (PASEC), Statistics Canada, the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ), and the West African Examinations Council (WAEC) (IEA, n.d.-a).

of a citizen. In addition, ICCS embraces concrete themes that have become of increasing importance in the twenty-first century, such as global citizenship, environmental sustainability, the use of new social media for civic engagement, digital citizenship, migration, and diversity (IEA, n.d.-b). Furthermore, ICCS can be used to monitor progress towards the UN's Sustainable Development Goals, particularly Target 4.7.4 – the percentage of students by age group (or education level) showing adequate understanding of issues relating to global citizenship and sustainability (IEA, n.d.-b). The ICCS provides data to governments so that they can improve civics and citizenship education.

Measurement objectives

The most recent ICCS assessment Framework (2016) builds on the conceptual foundation of the previous two assessment frameworks, incorporating global developments likely to influence civics and citizenship education (Schulz, Ainley, Fraillon, Losito, Agrusti, et al., 2016).

Assessment domains

ICCS investigates students' knowledge and understanding of concepts and issues related to civics and citizenship, as well as their beliefs, attitudes, and behaviours (Schulz, Ainley, Fraillon, Losito, Agrusti, et al., 2016). The Framework has been designed for use in countries that have democratic political institutions. For example, there are questions that ask students about their views on democracy.

The ICCS 2016 Civic and Citizenship Framework is organised around four content domains:

- *Civic society and systems* – the mechanisms, systems, and organisations that underpin societies

- *Civic principles* – the shared ethical foundations of civic societies
- *Civic participation* – the nature of the processes and practices that define and mediate the participation of citizens in their civic communities
- *Civic identities* – the personal sense an individual has of being an agent of civic action with connections to multiple communities (Schulz, Ainley, Fraillon, Losito, & Agrusti, 2016)

The ICCS assessment framework incorporates two cognitive domains:

- *Knowing* – the types of civic and citizenship information that students are required to demonstrate knowledge of
- *Reasoning and applying* – the cognitive processes that students require to reach conclusions (Schulz, Ainley, Fraillon, Losito, & Agrusti, 2016)

The Assessment Framework includes two affective-behavioural domains, which relate to the attitudes that students develop and their disposition to participate in civic life:

- *Attitudes* judgments or evaluations regarding ideas, persons, objects, events, situations, and/or relationships
- *Engagement* – students' civic engagement, students' expectations of future action, and their dispositions to actively engage in society (Schulz, Ainley, Fraillon, Losito, & Agrusti, 2016)

The assessment instruments include the international cognitive test as well as student questionnaires.

In addition to the international study, there were two regional modules in 2016 (one for Europe and one for

Table 1: Domains of ICCS 2016 assessment framework and the student instruments used to collect relevant data

Content domain	Cognitive domains		Affective-behavioural domains	
	Knowing	Reasoning and applying	Attitudes	Engagement
Civic society and systems	Test	Test	Questionnaire	Questionnaire
Civic principles	Test	Test	Questionnaire Assessment items	Assessment items
Civic participation	Assessment items	Assessment items	Assessment items	Assessment items
Civic identities	Assessment items	Assessment items	Assessment items	Assessment items

Latin America), which explored topics of particular relevance to countries from those regions.²

Contextual information

Young people develop their understandings about their roles as citizens through activities and experiences within homes, schools, classrooms, and the wider community (Schulz, Ainley, Fraillon, Losito, Agrusti, et al., 2016). Accordingly, ICCS collects contextual data on the organisation and content of civic and citizenship education in the curriculum, teacher qualifications and experiences, teaching practices, school environment and climate, as well as home and community support (IEA, n.d.-b). Collecting this data enables a better understanding how these contextual factors influence citizenship, as well as civics and citizenship education (Schulz, Ainley, Fraillon, Losito, Agrusti, et al., 2016).

The contextual data is collected via the following instruments: international student questionnaire, teacher questionnaire, school questionnaire and for countries participating in regional modules, a regional student questionnaire.

The ICCS questionnaires collect data based on the following four contextual levels: the individual, home and peer environments, schools and classrooms and, wider community.

The individual level refers to the individual characteristics of the student. This includes the student's age, gender and expected educational qualifications (Schulz, Ainley, Fraillon, Losito, & Agrusti, 2016).

The home and peer environments level comprises factors related to the home background and the social out-of-school environment of the student. This includes: family interactions, peer group interactions, educational resources in the home, culture, religion, values, use of the test language at home, the relationship status the young person has within the family, parental education, incomes and employment levels, access to different kinds of media, the quality of the school-home connections, and the wide range of civic-related opportunities out of school that the young person can exercise (Schulz, Ainley, Fraillon, Losito, Agrusti, et al., 2016).

The schools and classrooms level comprises factors related to the instruction students receive, the school culture, and the general school environment. This includes the school contexts and characteristics, teacher background and their perceptions of schools and classrooms, as well as student perceptions of the context of schools and classrooms (Schulz, Ainley, Fraillon, Losito, Agrusti, et al., 2016).

The wider community level comprises the context within which schools and home environments work. This includes factors in local, regional, national and international contexts. National education policies, the education system, as well as local community and school–community relationships are all part of the wider community context. Economic, cultural and social resources impact how citizens engage (Schulz, Ainley, Fraillon, Losito, Agrusti, et al., 2016).

Target population and sampling method

ICCS assesses students enrolled in the eighth grade, provided that the average age of students at this year level is 13.5 years or above. In countries/benchmarking entities³ where the average age of students in the eighth grade is less than 13.5 years, the ninth grade is defined as the target population (Schulz, Ainley, Fraillon, Losito, Agrusti, et al., 2016).

A sample of teachers is drawn for the teacher questionnaire. Fifteen teachers are randomly selected from each school participating in the ICCS survey. This reflects that in most countries civics and citizenship education is regarded as a whole school responsibility. The sample of teachers includes all those who teach regular school subjects to the students in the target grade at each sampled school, but excludes those not teaching during the testing period or not employed at school since the beginning of the school year (Schulz, Ainley, Fraillon, Losito, & Agrusti, 2016).

The inclusion of all participants included in the target population is encouraged, participants are permitted to reduce the population coverage by making school-level and student-level exclusions for political, organisational and operational reasons, providing these exclusions do not exceed set limits (Schulz, Carstens, Losito, Agrusti, & (eds.), 2018).

The goal of the student sample design is to achieve a sample size of at least 400 students for the main variable of interest. Accordingly, the complex sample design of ICCS should yield the same sampling precision as a hypothetical simple random sample of 400 students (Schulz et al., 2018). ICCS samples intact classes of students from each of the 150 sampled schools, resulting in a sample of 3000 to 4500 tested students (Schulz et al., 2018).

Some participating countries/benchmarking entities sample more than one class per sampled school, either to obtain a larger student sample or to enable the better estimation of school-level effects. A participating

2 In ICCS 2009, a third regional module was offered for Asian countries. There needs to be at least five countries within a region to warrant a regional module, which was lacking amongst Asian countries in 2016.

3 The term 'benchmarking entity' refers to sub-regions within countries. For example, in the case of ICCS 2022, the state of Schleswig-Holstein in Germany is participating, and not the whole of Germany.

country/benchmarking entity may also be required to sample more than 150 schools if the standard class size is particularly small or if high levels of non-response are expected (Schulz et al., 2018).

The IEA undertakes the school sample selection for all the participants. To identify appropriate schools, the IEA sampling team asks national centres to provide a list of schools with students enrolled in the target grade, which is checked for plausibility against official statistics. The IEA applies a stratified two-stage probability sampling design, in which the schools are selected systematically with probability proportional to size (PPS) within each stratum (Schulz et al., 2018).

In the second stage of sampling, one or more intact classes are sampled with equal probability of selection using systematic random sampling.⁴ Based on a list of target grade classes, the ICCS study centre selects one or more classes from each school, using software developed by IEA for use in its surveys (Schulz et al., 2018).

Assessment administration

A consortium of institutions administers ICCS: the Australian Council for Educational Research (ACER) serves as the international study center, with the Laboratorio di Pedagogia Sperimentale (LPS) at Roma Tre University and LUMSA University (from 2022) in Rome acting as associate research center. The study centres are jointly responsible for designing and implementing the study, working in close cooperation with IEA and the national centres of participating countries (IEA, n.d.-b).

ICCS assessment of students was paper based in 2016, but is transitioning to an online format in 2022. The teacher and school questionnaires are available in digital and paper format. Providing and collecting the questionnaires from students is the responsibility of the test administrators, who manages the activities on the day of the test.

Within a participating country/benchmarking entity, after schools have been sampled the national research centre is responsible for identifying and training school coordinators. The school coordinators are tasked with providing the national research centre with information for within-school sampling of classes; identifying and training test administrators; organising the time and place for test administration; distributing questionnaires; maintaining the security of test booklets; and managing the receipt and return of all assessment materials. Both the school coordinators

⁴ Since small classes increase the risk of obtaining unreliable estimates, if a sampled school is identified as having small classes, these classes are grouped together into pseudo-classes that have adequate numbers of student before the second stage of sampling.

and the test administrators are supported in their work by manuals that are developed by the ICCS International Study Centre.

Since ICCS is a comparative international survey, assessment booklets must be standardised across countries/benchmarking entities. Guides are provided to countries/benchmarking entities in translating and adapting test items from the source language to the target language(s). The translations are externally reviewed, with the verification process led by the ICCS Study Centre. After translation and verification, participating countries/benchmarking entities are expected to follow further standard, internationally agreed-upon procedures to complete the preparation of their materials (Schulz et al., 2018).

In addition to the preparation of assessment booklets, other assessment activities, including test administration, scoring, and data entry and processing, must also be standardised as much as possible. To achieve this, ICCS has developed and documented procedures, protocols, software and training, and also initiated an independent quality assurance program (Schulz et al., 2018).

Reporting and dissemination

ICCS results are reported in international reports prepared by ACER and LPS. There are also separate reports based on the regional modules. Each report begins with some introductory information about the history and context of the Study, the nature of the current assessment, and the range of participating countries/benchmarking entities. Student assessment results are presented next, followed by the background questionnaire data.

Results are reported for each participating country/benchmarking entity in terms of means and distributions of student achievement. The following four-level scale was used to report student civic knowledge in ICCS 2016: Level A (563+), Level B (479-562), Level C (395-478), Level D (311-394). The differences found among and within countries/benchmarking entities are examined. Trends in achievement are presented, as well as achievement differences by gender and trends in achievement differences by gender (Schulz, Ainley, Fraillon, Losito, Agrusti, et al., 2016).

The ICCS civic knowledge scale levels are given not only as numerical proficiency scores but also as detailed proficiency descriptions. These descriptions of the ICCS civic knowledge scale are developed by the ICCS International Study Center and the item review experts through data analysis and conceptual analysis of the assessment items.

ICCS international reports include separate chapters focussed on school contexts and student

characteristics. The latter are particularly used to explain the variation in students' civic knowledge and expected civic engagement (Schulz, Ainley, Fraillon, Losito, Agrusti, et al., 2016). The international reports also include detail of the national contexts in which civic and citizenship education is delivered.

In addition to the international report produced each cycle, ICCS also produces technical reports that describe in detail all technical aspects of the assessment. Furthermore, an International Database comprising ICCS data together with a database guide are released following each cycle of ICCS and the IEA together with members of the ICCS consortium offer training for researchers in the use of ICCS data.

ICCS international reports, technical reports, assessment frameworks databases and other documentation for all cycles can be downloaded from the IEA website.⁵ The international databases for all cycles, and user guides – along with the IEA IDB Analyser software application, which facilitates the analysis and visualisation of data – can also be downloaded from the IEA website.⁶

Influence

ICCS is the only dedicated international study of civic and citizenship education. It arose in response to governments needing better quality data to inform civics and citizenship education within the twenty-first century context, such as addressing challenges and opportunities related to globalisation, environmental sustainability and digital technology.

To date, ICCS has provided information about civic and citizenship education in schools, and about how countries/benchmarking entities prepare young people for citizenship, which is of great use for policymakers and practitioners in developing civics and citizenship education (Schulz et al., 2013).

In responding to the 2016 ICCS National Context survey, two countries affirmed that the 2009 ICCS had influenced curriculum. Specifically, in Norway, the subject 'Social Studies', and in Slovenia, the subject 'Patriotic and Citizenship Culture and Ethics' were revised to integrate findings from ICCS.⁷

The IEA is producing a document that is reviewing the impacts of ICCS, which will be released in late 2020.

5 https://www.iea.nl/publications/list?field_related_study_target_id=919

6 <https://www.iea.nl/data-tools/tools#section-308>

7 This data can be observed in the ICCS data repository: <https://www.iea.nl/data-tools/repository/iccs>

References

- IEA. (2014). IEA: Brief history. Retrieved from http://www.iea.nl/brief_history.html
- IEA. (n.d.-a). *About Us [Pamphlet]*. Retrieved from http://www.iea.nl/fileadmin/user_upload/IEA_Documents/IEA_Brochure.pdf
- IEA. (n.d.-b). ICCS. Retrieved from <https://www.iea.nl/studies/iea/iccs#section-570>
- Mullis, I. V. S., & Martin, M. O. (Eds.). (2013). *TIMSS 2015 Assessment Frameworks*. Chestnut Hill, MA: TIMSS & PIRLS International Study Center, Lynch School of Education, Boston College and International Association for the Evaluation of Educational Achievement (IEA).
- Schulz, W., Ainley, J., Fraillon, J., Losito, B., & Agrusti, G. (2016). *IEA International Civic and Citizenship Education Study 2016 Assessment Framework*. Retrieved from Amsterdam:
- Schulz, W., Ainley, J., Fraillon, J., Losito, B., Agrusti, G., & Friedman, T. (2016). *Becoming Citizens in a Changing World IEA International Civic and Citizenship Education Study 2016 International Report*. Retrieved from Amsterdam:
- Schulz, W., Ainley, J., & Freidman, T. (2013). *ICCS 2009 Encyclopedia Approaches to civic and citizenship education around the world*. Retrieved from Amsterdam:
- Schulz, W., Carstens, R., Losito, B., Agrusti, G., & (eds.). (2018). *ICCS 2016 Technical Report*. Amsterdam: The International Association for the Evaluation of Educational Achievement.

The ACER Centre for Global Education Monitoring supports the monitoring of educational outcomes worldwide, holding the view that the systematic and strategic collection of data on educational outcomes, and factors related to those outcomes, can inform policy aimed at improving educational progress for all learners.

<https://www.acer.org/au/gem>