

4-2011

Design and implementation of the IEA Civic and Citizenship Education Study

Tim Friedman

ACER, Tim.Friedman@acer.edu.au

Julian Fraillon

ACER, Julian.Fraillon@acer.edu.au

Barbara Malak

International Association for the Evaluation of Educational Achievement

Follow this and additional works at: <http://research.acer.edu.au/civics>



Part of the [Educational Assessment, Evaluation, and Research Commons](#)

Recommended Citation

Friedman, Tim; Fraillon, Julian; and Malak, Barbara, "Design and implementation of the IEA Civic and Citizenship Education Study" (2011).

<http://research.acer.edu.au/civics/16>

Design and Implementation of the IEA Civic and Citizenship Education Study

Tim Friedman
Australian Council for Educational Research
Melbourne/Australia
friedman@acer.edu.au

Julian Fraillon
Australian Council for Educational Research
Melbourne/Australia
fraillon@acer.edu.au

Barbara Malak
International Association for the Evaluation of Educational Achievement
Amsterdam/The Netherlands
b.malak@iea.nl

Paper prepared for the Annual Meetings of the American Educational Research Association in New Orleans, 8-12 April 2011.

Overview

This paper provides an overview of the International Civic and Citizenship Education Study (ICCS) and summarizes different aspects of the study implementation. It outlines: the structure of the assessment framework; the design, development and implementation of instruments; the sampling design and outcomes; and quality control measures for the study.

Assessment framework

The assessment framework provided a conceptual underpinning for the international instrumentation for ICCS and a point of reference for the development of regional instruments (Schulz et al., 2008). The assessment framework was developed over a two-year period in consultation with ICCS National Research Coordinators, the ICCS Project Advisory Committee and other civic and citizenship education experts.

The assessment framework consisted of two parts: a *civics and citizenship framework* that outlined the outcome measures addressed through the cognitive test and the student perceptions questionnaire; and a *contextual framework* that mapped the context factors expected to influence outcomes and explain their variation.

Civics and citizenship framework – content dimension

The civics and citizenship framework was organized around three dimensions, a *content dimension*, an *affective-behavioral dimension* and a *cognitive dimension*.

The content dimension comprised four content domains : *civic society and systems*, *civic principles*, *civic participation*, and *civic identities*. Each of these domains was further divided into thematic content groups called sub-domains.

- *Civic society and systems* included three sub-domains—(i) citizens (roles, rights, responsibilities, and opportunities); (ii) state institutions (institutions central to civic governance and legislation); and (iii) civil institutions (institutions that mediate citizens' contact with state institutions and allow citizens to pursue many of their roles in their societies).
- *Civic principles* included three sub-domains—(i) equity (all people having the right to fair and just treatment); (ii) freedom (of belief, of speech, from fear, and from want); and (iii) social cohesion (sense of belonging, connectedness, and common vision amongst individuals and communities within a society).
- *Civic participation* included three sub-domains—(i) decision-making (organizational governance and voting), (ii) influencing (debating, demonstrating, developing proposals, and selective purchasing); and (iii) community participation (volunteering, participating in organizations, keeping informed).
- *Civic identities* included two sub-domains—(i) civic self-image (individuals' experience of place in each of their civic communities); and (ii) civic connectedness (sense of connection to different civic communities and the civic roles individuals play within each community).

The sub-domains were further described according to (as appropriate) constituent *aspects* (specific content headings or topics) and *key concepts* (ideas that are applicable across a range of civic and citizenship contexts).

Civics and citizenship framework – affective-behavioral dimension

The assessment framework identified the different types of student perceptions and behaviors relevant to civics and citizenship. Four affective-behavioral domains were identified: value beliefs, attitudes, behavioral intentions, and behaviors.

- *Value beliefs*: these relate to fundamental beliefs about democracy and citizenship; they are more constant over time, more deeply rooted, and broader than attitudes.
- *Attitudes*: these include self-cognitions related to civics and citizenship; attitudes toward the rights and responsibilities of groups in society, and attitudes toward institutions.
- *Behavioral intentions*: these refer to expectations of future civic action, and they include constructs such as preparedness to participate in forms of civic protest, anticipated future political participation as adults, and anticipated future participation in citizenship activities.
- *Behaviors*: these refer to present or past participation in civic-related activities at school in or the wider community.

Civics and citizenship framework – cognitive dimension

In ICCS, *civic knowledge* was term given to the empirical achievement construct derived from student responses to test items in which cognitive processes were applied to civic and citizenship content (Schulz et. al., 2010). The cognitive processes are grouped according to the two domains described in the cognitive dimension of the assessment framework. The two cognitive domains are:

- *Knowing*: this refers to the learned civic and citizenship information that students use when engaging in the more complex cognitive tasks that help them to make sense of their civic worlds.
- *Reasoning and analyzing*: this refers to the ways in which students use civic and citizenship information to reach conclusions by integrating perspectives that apply to more than a single concept and are applicable in a range of contexts.

Contextual framework

The ICCS contextual framework described and defined the contexts in which young people's civic engagement is developed. In the study of civic and citizenship outcomes and indicators the relevant context is broad. It extends beyond the immediate school-based world and the different levels of students' civic and citizenship context are explicitly described in the framework. These levels are:

- *The wider community* (that extends beyond home and school)
- *School and classrooms*
- *Home environments*
- *The individual.*

The contextual framework also distinguishes between *antecedents* – those factors that shape the context in which student development occurs (such as educational policy) – and *processes* – those factors that directly interact with the student (such as classroom practice).

The different levels of the student context can relate to either antecedents and/or processes depending on the nature of the student experience. For example, at the level of the home environment whether or not students speak their language of instruction at home is an antecedent context whereas the amount of discussion students have with their parents about political and social issues is a process.

The ICCS suite of instruments collected data on both student outcomes and the context in which those outcomes were developed according to the content described and organized in the assessment framework.

Instrumentation

The ICCS international core included two student instruments a teacher, school and national context survey instruments. The student instruments collected outcome and contextual data as described by the assessment framework. The teacher, school and national context survey instruments collected contextual data.

The instruments were developed over a two-year period in consultation with ICCS National Research Coordinators, the ICCS Project Advisory Committee and other civic and citizenship education experts.

In the initial stages of the international core instrument development, stakeholders were invited to contribute draft items, constructs and ideas to the developing instrument pool. In some cases these materials were derived from existing instruments, some that had been used in national civic and citizenship research projects within participating countries. Some items and scales were also adapted or reused from the IEA Civic Education Study conducted in 1999 (CIVED). Further materials were developed by the ICCS consortium partners with the Australian Council for Educational Research (ACER) leading development of the student test and survey instruments; the Laboratorio di Pedagogia Sperimentale (LPS) at the University of Roma Tre leading development of the teacher and school questionnaires and the National Foundation for Educational Research (NFER) in England leading development of the national context survey instrument. The lead institutions took responsibility for pulling together the disparate instrument contents and refining the instruments. Part of this process included the use of a web-based review of the instruments to allow NRCs and other experts to provide detailed feedback. All instruments were first empirically tested in a field trial in 2008 in 31 countries and further refined on the basis of the outcomes of the field trial.

ICCS included an innovation in international comparative education research studies. The instrument suite included three regional student instruments (*regional modules*). The regional modules developed within the three broad geographical regions of Europe, Latin America and Asia and although optional for countries, were completed in most countries. The ICCS regional modules enabled questions to target issues and content of particular relevance to regions that had not been addressed in the international core instruments. The regional modules were developed in direct collaboration with NRCs and experts from each region. ACER coordinated development of the Latin American and Asian regional modules and NFER coordinated development of the European regional module. All regional modules were included trialed in

2008 and refined according to the same processes and with reference to the same quality standards as the international core instruments.

Following is a description of the full set of ICCS instruments.

- *The international student cognitive test:* this consisted of 80 items measuring civic and citizenship knowledge, analysis, and reasoning. The assessment items were assigned to seven booklets (each of which contained three of a total seven item-clusters) according to a balanced rotated design. One of seven clusters comprised only items from CIVED in order to facilitate comparison of achievement over time in a sub-set of countries. These items also contributed to the development of the ICCS civic knowledge scale. Each student completed one of the 45-minute booklets. The cognitive items were generally presented with contextual material that served as a brief introduction to each item or set of items. Seventy four items were multiple choice and six items required students to write one or two sentences.
- *A 40-minute international student questionnaire:* this was used to obtain data relating to the affective-behavioral dimension of the assessment framework.
- *Three regional student instruments:* these took between 15 and 30 minutes to complete and focused on particular issues associated with civics and citizenship in three regions—Asia, Europe, and Latin America. The European and Latin American regional modules included both a short test and questionnaire. The Asian regional module comprised a questionnaire only.
- *A 30-minute teacher questionnaire:* this asked respondents to give their perceptions of civic and citizenship education in their schools and to provide information about their schools' organization and culture as well their own teaching assignments and backgrounds.
- *A 30-minute school questionnaire:* here, principals provided information about school characteristics, school culture and climate, and the provision of civic and citizenship education in the school.
- *A national context survey:* NRCs coordinated the information procured from national experts in response to an on-line national contexts survey. This information concerned the structure of the education system, civic and citizenship education in the national curricula, and recent developments in civic and citizenship education.

Sampling design and outcomes

The population definition of students surveyed in the ICCS included all students enrolled in the grade that represents eight years of schooling, counting from the first year of ISCED Level 1, providing the mean age at the time of testing is at least 13.5 years. A two-stage sample design was used. At the first stage schools were randomly selected using a PPS (probabilities proportional to size) procedure. Where possible, selecting the same schools for the field trial and main survey was avoided. The minimum sample size of schools in each country was 150 schools. Countries with smaller numbers of schools included all schools in the survey.

At the second stage, classrooms and teachers within schools were sampled. In most participating countries, only one class per school was randomly selected for ICCS. In smaller countries more than one class was selected.

A sample of teachers was selected randomly from all teachers teaching regular school subjects to students of the target grade (regardless of the subject or the number of hours taught) during the ICCS testing period. At least 15 teachers were sampled from each participating school, where possible.

In order to make it possible to compare the results of ICCS to the results of CIVED, participating countries which tested a different grade in 1999 were encouraged to assess the same grade once again, in addition to the internationally defined target grade.

The participation rates required for each country were 85 percent of the selected schools and 85 percent of the selected students within the participating schools, or a weighted overall participation rate of 75 percent. The same criteria were applied to the teacher sample, but the coverage was judged independently of those for the student sample. For the student survey all but two countries met sample participation requirements after the inclusion of replacement schools. For teacher survey, response rates were generally lower but most countries still met minimum participation requirements.

Translation and adaptation of survey instruments and quality monitoring

National centers were required to translate and adapt the international versions of instruments for national use. In doing so, they were required to keep in mind that the objective of the study was to create an international database containing comparable international data from all participating countries with complete documentation.

Consequently, any change that was made had to be recorded electronically on the National Adaptations Forms (NAFs). These forms were used not only for documentation purposes, but were also necessary when national data were added to the international database. One form was completed for the tests or questionnaires used in the country. The forms were completed and reviewed at various stages of the verification process. The three stages of verification were for country adaptations, translations, and layout of final materials.

It should be noted that changes to NAFs did not occur at each stage of the adaptation process. Most changes to national adaptation resulted from the consultation between national and international study centers. These adaptation review procedures were applied both prior to the field trial and the main survey. National centers were required to complete a NAF for each test language that was to be used for their country.

Adaptations to ICCS instruments were discussed with the international study center and documented. In each of the English source version of materials it was indicated where adaptations were required and any words in carets (< >) in the source versions needed to be replaced with the country-appropriate term. Specific adaptation and translation notes were provided including information on how best to adapt those questions. The notes also clarified what the particular questions were asking so that translators could select the appropriate word or expression to convey what was intended.

In principle, words not written in carets were not to be adapted. However, particularly in the questionnaire material, there could be linguistic, cultural or other reasons for adapting these questions but national centers were advised to keep these adaptations to a minimum. All adaptations had to be described in the NAFs and were discussed with the ISC, which provided the national centers with feedback on their adaptations and, where appropriate, made suggestions for improving the adaptations.

In the NAFs national centers were also requested to document whether they intended to include any of the international options, any additional national item material, any additional items to the existing international items or additional categories to questions in the international instruments.

In parallel or subsequent to the adaptation process, language experts in the participating countries prepared translations of the materials for each language that was to be used for their countries. These were sent to the IEA Secretariat, who organized translation verification of each set of materials by independent language experts. The quality and accuracy of translations and adaptations were documented by the expert, and added to the NAFs.

Once all adaptation and translation issues had been agreed, national centers were asked to compile their final set of instruments for each test language to be used in the main survey. These files were accessed by staff at the ISC for layout verification. Two independent reviewers at the ISC reviewed each set of materials. All layout issues identified were documented in a worksheet added to the NAFs.

The layout issues in each set of instruments were grouped as to whether they were general layout issues relating to the set of instruments, or whether they related to a specific question or specific group of questions within an instrument. A wide range of layout issues were identified across countries. These included formatting issues (e.g. spacing, font size, margins, consistency across questions), the order of questions, missing text and the addition of questions not agreed on from adaptation review.

Selected schools that were surveyed were visited on their respective testing dates by quality monitors who recorded the test administration and how procedures were followed. This process was managed by the IEA Secretariat and followed international guidelines. In addition, national centers typically implemented an additional quality monitoring of the survey.

References

- Schulz, W., Ainley, J., Fraillon, J., Kerr, D., & Losito, B. (2010). *ICCS 2009 international report: Civic knowledge, attitudes and engagement among lower secondary school students in thirty-eight countries*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).
- Schulz, W., Fraillon, J., Ainley, J., Losito, B., & Kerr, D. (2008). *International civic and citizenship education study: Assessment framework*. Amsterdam: International Association for the Evaluation of Educational Achievement (IEA).