CHAPTER 23:

Reflections on the Development of the IEA Civic and Citizenship Education Studies

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Abstract This chapter discusses the content, design, and methods of the three IEA studies of civic and citizenship education. It focuses on the changes made between each of these studies and the contexts for this learning area. The IEA Civic Education Study (CIVED) in 1999 was developed soon after the transition to democracy in many participating countries; threats to civil society in the early 2000s such as terrorism influenced the International Civic and Citizenship Education Study (ICCS) in 2009. The design of ICCS in 2016 responded to the increasing importance of social media in civic engagement, the growth in awareness of global and environmental issues, as well as the recognition of school as a context for social interaction. Starting in 2009 ICCS studies have implemented regional modules including questions covering topics of specific interest in Asia, Europe, and Latin America. Changes were made in the design, which make it difficult to compare results across time. Examples are the introduction of rotated booklets for the civic knowledge test or the change in the sampling strategy for the teachers. The selection of item material in each study followed an exhaustive process of reviews and discussions among IEA country representatives (as well as experts and international committee members).

Introduction

IEA has an impressive history of studies of civic and citizenship education and remains the only organization conducting regular studies dedicated to this learning area. The first IEA civic education study was part of the organization's six-subject study and collected data from ten countries in 1971 (Torney et al. 1975). It was nearly 30 years before the organization mounted another comparative study of this learning area, the second IEA Civic Education Study (CIVED) implemented in 1999. It collected data from 14-year-olds in 28 countries (Torney-Purta et al. 2001). CIVED also collected data from upper-secondary students in 16 countries (Amadeo et al. 2002). In 2009, IEA conducted the first in a cycle of IEA International Civic and Citizenship Education Studies (ICCS) (Schulz et al. 2010), which after a second implementation in 2016 (Schulz et al. 2018a) is currently in its third study cycle with data collection scheduled for 2022.

The changes following the fall of communism in Europe prompted IEA to begin the development process for CIVED. Starting in 1994 the study's Steering Committee developed a civic knowledge and skills test and a questionnaire measuring civic and political attitudes and perceptions. Background information questions were included as well as items measuring open classroom climate (which originated with the 1970s study). Most previous IEA studies (such as the Trends in International Mathematics and Science Study [TIMSS]) had a primary focus on the measurement of knowledge and skills, and attitudes were measured as part of the contextual data collection. An international center at the Humboldt University of Berlin and IEA's central organization provided technical assistance. While funding was limited, pre-testing was essential due to the newness of this subject area in IEA's range of assessments at that time.

The CIVED study defined a largely new subject for educational research, responded to considerable policymaker interest in the field (especially in Eastern Europe), and provided countries a basis for developing education programs that addressed civic knowledge, civic attitudes, and civic participation (as discussed in other chapters). It served as the basis on which cyclical studies would later be built.

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ICCS 2009 was designed as a new baseline study. It contained a range of similar questionnaire items, a modified test design with rotated booklets to increase the coverage of content, and it included linkage items to CIVED. A major purpose of the subsequent ICCS cycles has been measuring changes in cognitive civic performance over time. Therefore, ICCS has (a) maintained a similar conceptual framework for the test/assessment, (b) used comparable population definitions and design features, and (c) included items/scales that can be compared across time. However, since the nature of civic and citizenship education changes with alterations in contexts and challenges, new aspects appear in each cycle and some are replaced. While more substantial changes to instruments and design may lead to incomparability across cycles, it is important to include updated content.

This chapter focuses on the types of changes implemented between the three IEA studies of civic and citizenship education from the late 1990s to 2020. *Content-related changes* concern the conceptual framework and the specific topics covered. *Design-related changes* concern the definitions of populations assessed (students and teachers), and the specific instruments administered. *Method-related changes* concern the way data were collected, scaled, and analyzed.

There were more substantial changes between CIVED 1999 and ICCS 2009 than between the two cycles of ICCS. IEA decided to create a baseline study starting with ICCS 2009 and to monitor changes over time using comparable instruments. However, many of the attitudinal constructs originally developed for CIVED remain represented in the ICCS instruments (e.g., attitudes toward immigrants' rights, attitudes toward women's rights renamed gender equality, support for norms of conventional and social movement citizenship action).

This chapter first outlines changes between CIVED and ICCS, and then reviews changes between the two first cycles of ICCS. Furthermore, the chapter considers expected changes for the next cycle of ICCS in 2022. This includes a transition to computer-based delivery, which is a challenge for all international studies (that started with paper-based data collection). Finally, there is discussion of the tension between comparability across studies and the need for innovation.

From CIVED 1999 to ICCS 2009

The development of ICCS in its first cycle had many similarities to the CIVED 1999 study but was conceptualized as beginning a cycle for the future. Therefore, ICCS 2009 introduced new elements in content, design, and methodology. This limits the possibilities for direct comparisons of results between CIVED and ICCS. Some changes were adaptations that had already been successfully implemented in other studies, but not previously applied in CIVED due to budget restrictions. There were also many similarities across the studies in purpose, conceptualization, and implementation.

Content-related Changes

At the outset of planning for ICCS 2009 the conceptual framework of CIVED was broadened to:

- Strengthen aspects related to participation;
- Include a wider range of content in the cognitive test; and
- Place greater emphasis on reasoning and applying when assessing students' civic knowledge.

The ICCS 2009 framework (Schulz et al. 2008) included explicit references to the conceptual framework for CIVED 1999. For example, students' acquisition of knowledge, attitudes, and dispositions for engagement were seen as influenced by connections with their civic communities, in accord with ecological systems theory (Bronfenbrenner 2004; Neal and Neal 2013) and theories of situated cognition (Anderson et al. 2000). This is reflected in the ICCS contextual framework (Schulz et al. 2008; Schulz et al. 2016), which sees civic-related learning outcomes

as influenced by characteristics of individual students, their home and peer contexts, school and classroom contexts, and also wider community contexts.

CIVED 1999 (Torney-Purta et al. 2001; Schulz and Sibberns 2004) conceptualized the content of relevant outcome variables based on a collection of case studies from 24 participating countries (Torney-Purta et al. 1999) and through a consultation process with country representatives during the mid-1990s. The study developed the following content categories:

- Democracy/Citizenship (subdomains: democracy and its defining characteristics; institutions and practices in democracy; and citizenship—rights and duties)
- National Identity, Regional and International Relationships (subdomains: national identity and international/regional relationships)
- Social Cohesion/Diversity.

The ICCS framework (Schulz et al. 2008) defines civic and citizenship content as related to the following content domains:

- Civic society and systems (subdomains: citizens; state institutions; and civil institutions)
- Civic principles (subdomains: equity; freedom; sense of community; and, since ICCS 2016, rule of law)
- Civic participation (subdomains: decision-making; influencing; and community participation)
- Civic identities (subdomains: self-image and connectedness).

Many content aspects of the CIVED domain of *democracy/citizenship* can be mapped to the ICCS domain *civic society and systems*. Likewise, aspects related to the second CIVED domain of *national identity/international relations* can be regarded as part of the fourth ICCS domain, *civic identities*; the third CIVED domain of *social cohesion/diversity* has commonality with the second ICCS content domain, *civic principles*. ICCS emphasized the importance of civic participation by assigning a specific content domain.

The rationale for emphasis on participation resulted from concerns about low levels of engagement among young people, changes in patterns of citizenship participation, and the observation that civic curricula were increasingly including content related to active forms of citizenship in addition to those related to learning civic knowledge. This broadening of scope is also reflected in the studies' names. The current IEA study is described as a *civic* **and** *citizenship education* study, while the two prior studies were referred to as *civic education* studies. However, the distinction between correct answer keyed cognitive items in a test and attitudinal/participation items without correct answers in a questionnaire has been maintained across the studies.

In CIVED 1999 cognitive test items measured either *content knowledge* or *skills in interpreting civic-related information* such as a mock election leaflet or political cartoon. Two sub-scales and a total scale were reported. The broadening of the ICCS civics and citizenship framework to include cognitive processes of applying knowledge to reach conclusions defined two cognitive domains—*knowing* and *reasoning and applying*. These resemble Anderson and Krathwohl's (2001) distinction between remembering or recalling information and processing content in applying it to new situations. These two sub-dimensions were highly inter-correlated and we decided not to reported sub-scales of civic knowledge in ICCS. However, it remains an important distinction in cognitive processing of civic-related information (Schulz et al. 2011; Schulz et al. 2018a; Schulz et al. 2013).

With regard to outcomes measured by the student questionnaire, CIVED 1999 distinguished between *concepts*, *attitudes*, and *actions*. For ICCS 2009, there was an explicit distinction between *values*, *attitudes*, *behavioral intentions*, and *behaviors*. The distinction between values and attitudes was between more enduring and deeply-rooted beliefs and those more focused on specific issues and potentially changeable (Schulz et al. 2008). The second distinction was made

between behavioral intentions and actual behaviors (distinguishing past or current behavior from expected future behavior). For ICCS 2016, there was one domain called *attitudes*, and a second domain called *engagement*, including both actual or intended behavior and dispositions towards engagement such as a sense of self-efficacy as a citizen (Schulz et al. 2016). The measures themselves did not change, only their classifications.

Substantial commonalities between CIVED and ICCS were preserved. To measure changes in students' civic knowledge between CIVED 1999 and ICCS 2009, 16 secure test items were included in the assessment instrument. All these cognitive link items could be mapped onto the newly developed ICCS content and cognitive domains. Many affective-behavioral aspects included in the ICCS student questionnaire were conceptually equivalent to constructs measured in CIVED 1999, albeit with format changes that limited comparability (see below).

Table 1 lists item sets measuring affective-behavioral aspects that were included across the last three studies of civic and citizenship education. Those developed for CIVED 1999 were

Table 1: Common student questionnaire content aspects for CIVED, ICCS 2009, and ICCS 2016

Content	CIVED 1999	ICCS 2009	ICCS 2016
Reports on discussions of civic issues	A	B	B
Students' interest in civic issues	A	B	
Reports on civic participation in the community	A	B	C
Reports on civic participation at school	A	B	C
Perceptions of open classroom climate	A	B	B
Perceptions of students' influence at school		B	
Perceptions of civic learning at school	A		C
Perceptions of student-teacher relations at school		B	B
Experiences of verbal and physical abuse at school			C
Perceptions of student interactions at school			C
Valuing student participation at school	A	B	B
Attitudes toward the role of government	A		
Perceptions of democracy	A	B	C
Perceptions of good citizenship	A	B	B
Endorsement of gender equity	A	B	B
Endorsement of equal rights for ethnic/racial groups	A	B	B
Attitudes toward rights of anti-democratic groups	A		
Endorsement of immigrant rights	A	B	B[1]
Attitudes toward country	A	B	C
Trust in civic institutions and groups	A	B	B
Internal political efficacy	A	B	
External political efficacy	A		
Support for political parties		B	
Citizenship self-efficacy		B	B
Expected participation: Legal activities (protest)	A	B	C
Expected participation: Illegal activities (protest)	A	B	C
Expected electoral participation	A	B	B
Expected active political participation	A	B	B
Endorsement of religious influence in society (optional)		B	B

Notes: A = Version developed for CIVED 1999; B = version developed for ICCS 2009; C = version developed for ICCS 2016.
[1] Only included in the European regional questionnaire.

denoted with "A," those for ICCS 2009 with "B," and those for ICCS 2016 with "C." In cases where item sets are entirely comparable, the corresponding pairs of cells are marked in grey. However, as ICCS changed the questionnaire format, direct comparisons between CIVED and ICCS are not recommended. ICCS 2009 was established as a new baseline study, and ICCS 2016 has directly comparable items and included some IRT scales that were equated across cycles to allow comparisons at the scale level.

Measuring region-specific aspects of civic and citizenship education was a new content-related feature of ICCS. Regional student instruments gathered data of particular relevance in the corresponding geographical region for the European countries (Kerr et al. 2010), for Latin America (Schulz et al. 2011), and for Asia (Fraillon et al. 2012). The European and Latin American instruments for ICCS 2009 included short sets of cognitive test items specific to the region. The European and Latin American countries participating in ICCS 2016 administered additional student questionnaires (Losito et al. 2018; Schulz et al. 2018c). There were too few participating countries in the Asian region in 2016 to sustain a regional component.

The cognitive test portions of regional instruments were difficult to develop, both from a conceptual and a measurement perspective. The European cognitive test was devised as an instrument to measure "knowledge about Europe and its institutions" and was limited to very basic factual knowledge. The resulting test showed poor psychometric quality and results were only reported at the item level (Kerr et al. 2010; Schulz et al. 2011). The Latin American cognitive test had better psychometric quality. However, its content was conceptually very similar to the international civic knowledge test. Therefore, these items were used to supplement the international test results with region-specific content but not to derive a region-specific civic knowledge scale (Schulz et al. 2011). For ICCS 2016, the regional student instruments only included questionnaire-type item material. Some Latin American knowledge items were adapted and moved into the international cognitive assessment.

Design-related Changes

Given the conceptualization of ICCS 2009 as a new baseline study, there were design-related changes from CIVED. These included changes to the population of students, the test design, and the introduction of additional instruments and delivery modes.

For CIVED 1999, the target population was defined as students enrolled in the grade that had the highest proportion of 14-year-olds. As this population definition was different from other IEA studies, for ICCS the student population was defined as students in the grade representing eight years of schooling, provided that the national average age at the time of the survey was at least 13.5 years. In a number of countries participating in both CIVED 1999 and ICCS 2009 the target grade changed; some participants opted for an additional survey in the upper adjacent grade, which allowed comparisons for content knowledge based on the set of CIVED link items included in the ICCS 2009 test (Schulz et al. 2010; Schulz et al. 2011). However, the basic (cluster) sampling design with schools selected proportional by size and intact classrooms within schools remained unchanged across studies (Schulz and Sibberns 2004; Schulz et al. 2011; Schulz et al. 2018b).

CIVED 1999 included a classroom-based survey of teachers of civic-related subjects. National centers identified up to three subjects where content of the CIVED test of civic knowledge was taught and were requested to survey the teachers of these subjects (Torney-Purta et al. 2001; Schulz and Sibberns 2004). The resulting samples of teachers were not necessarily representative of the overall teacher populations due to varying procedures used to identify the civic-related subjects. This concern was among the reasons for changing the ICCS teacher survey design. Even more important was the perspective that civic and citizenship education is likely to be influenced by the entire school context and that all teachers contribute to the civic learning of

young people regardless of their subject area. Consequently, the ICCS teacher questionnaire was administered to a sample of all teachers teaching at the target grade at each of the selected schools. Teacher data could also be analyzed by aggregating them as school-level indicators.

In order not to neglect data about the teaching of civic-related content, ICCS offers an option (so far selected by all countries) to add a section to the teacher questionnaire following a filter question asking whether the respondent was currently teaching such a subject at the target grade. Similar to experiences in other studies, in some countries it has been more difficult to achieve sufficiently high participation rates for the teacher surveys than for the student assessments (Schulz et al. 2011; Schulz et al. 2018b).

Another change concerns the delivery mode for teacher and school questionnaires. ICCS 2009 and 2016 offered countries the option of administering both instruments using an online platform with a paper-based alternative for school principals or teachers who preferred it. While in ICCS 2009 only six out of 38 participating countries opted for online delivery (see Schulz et al. 2011), in ICCS 2016 this option was chosen by 16 out of 24 participating countries or entities (see Schulz et al. 2018b). Analyses undertaken as part of ICCS 2009 showed no strong mode effects on item responses.

A key change between CIVED 1999 and ICCS 2009 related to the design for the test of students' civic knowledge. CIVED 1999 administered all test questions in one single booklet, imposing limits on the number of items. ICCS opted for a balanced rotated booklet design, where seven or eight booklets were combined and administered. Each student received three clusters of test items and in the booklet design each cluster appeared once in a different position. First, this design enabled a broader coverage of item material than using a single booklet, and second, it allowed a control for position effects, given that response to items administered toward the end of testing may be influenced by fatigue. Item response theory (IRT) (Rasch 1960; Hambleton and Swaminathan 1985) was used to derive student scales scores that are comparable across the different item combinations.

The format of the student questionnaire also differed. In CIVED 1999, all student questionnaire/survey items measuring affective-behavioral indicators had a "don't know" option in addition to the response categories indicating agreement or disagreement. However, for some questions this category appeared to be somewhat inappropriate. To bring the questionnaire format in line with other IEA studies we omitted the "don't know" option and reversed the order of the response categories for appropriate items. Secondary analysts should be cautious when comparing survey data from IEA civic and citizenship education studies between 1999 and 2009 because of these format changes (Barber and Torney-Purta 2012).

In CIVED 1999, there was a qualitatively oriented first phase that collected studies about the background of civic and citizenship education in participating countries (Torney-Purta et al. 1999), and no survey collected national contextual data. A design-related change in ICCS was introducing an online survey for country-level data. National center staff provided information about characteristics of their education system as well as curricular policies and practices in the learning area not available from comparable published sources. However, completing the ICCS 2009 national contexts survey proved difficult for country level experts who did not always use parallel sources across countries (Schulz et al. 2011). The national contexts survey for ICCS 2016 was restricted to factual aspects, and respondents were requested to provide information about the reference documents that were used (Schulz et al. 2018b). In addition to this contextual information IEA also published an encyclopedia summarizing results from 2009 by country and containing additional details about civic and citizenship education (Ainley et al. 2013).

Method-related Changes

Due to resource restrictions, CIVED 1999 could not implement a number of IEA's measures for quality assurance internationally. However, field operation manuals encouraged countries to implement quality assurance measures such as phone calls (or visits) to schools, and national centers were requested to complete a survey documenting compliance with operational procedures (Schulz and Sibberns 2004). Translations for the main survey were undertaken by national centers and then submitted for verification by independent language experts.

In ICCS 2009 and 2016, when appropriate funding was available, IEA organized an international quality monitoring where independent observers visited 10% of sampled schools to monitor the appropriate data collection procedures (Schulz et al. 2011; Schulz et al. 2018b). Translation verification was implemented prior to both the field trial and main survey, using professional agencies, and final instruments underwent thorough layout verification checks. Results from this review were discussed with national centers to improve the quality of the survey instruments (Schulz et al. 2011; Schulz et al. 2018b).

While CIVED 1999 limited its data collection instruments to closed item formats, ICCS introduced open-ended questions where students had to write answers that were coded by national centers. To improve the measurement of socioeconomic background, students were asked to provide a short title for the jobs of their parents or guardians followed by a short description. Answers were coded using the international ISCO-08[1] classification (International Labour Organisation 2007) and converted into scores following the ISEI[2] scheme (Ganzeboom et al. 1992). The resulting indicators contribute substantially to the measurement of parental socioeconomic background, which is related to learning outcomes in civic and citizenship education (Brese and Mirazchiyski 2013).

The cognitive assessment developed for CIVED 1999 included only items with multiple-choice formats, which do not require complex scoring rules. For ICCS we also developed open-ended formats to gather data about complex cognitive reasoning, which is harder to capture with pre-defined answer formats. Therefore, ICCS includes open-ended items constituting about 10% of the test items, for which written answers were coded according to international scoring guides. These items were well suited to measure cognitive reasoning and applying knowledge; furthermore, they substantially contributed to the measurement and description of higher levels of civic knowledge. While challenging to develop and consistently score across participating countries, the open-ended items showed good psychometric characteristics (with acceptable levels of cross-national measurement invariance) and satisfactory inter-scorer reliability (Schulz et al. 2011; Schulz et al. 2018b).

For the scaling of CIVED 1999 data, IRT-based modelling using the Rasch (one-parameter) model was applied to derive the civic knowledge scale and the two sub-scales reflecting content knowledge and skills in interpreting political communication. Given resource limitations in CIVED, maximum likelihood estimates (MLE) were used as cognitive scale scores (Schulz and Sibberns 2004). For ICCS, we had the resources to apply plausible value methodology (von Davier et al. 2009)—an approach also used in other IEA studies such as TIMSS or PIRLS.

CIVED 1999 was the first international study where IRT-based modelling, here using the Rasch Partial Credit model (Masters and Wright 1997), was applied to the scaling of questionnaire items. This approach had the advantage of a better handling of missing responses to the attitudinal questions and provided a way of describing scale scores by relating scale scores to expected

1 ISCO = International Standard Classification of Occupations.
2 ISEI = International Socio-Economic Index.

responses to individual items (Schulz and Sibberns 2004). With some modifications,[3] this approach was also applied in ICCS. An IRT score in one study can only be compared to a score in another study if the scale scores have been equated based on sets of unmodified items. For ICCS 2016, some of the student questionnaire scales were reported on the same scale metric and may be compared across the two cycles. ICCS routinely implements extensive in-depth reviews of cross-national validity and measurement invariance during the development stages (Schulz 2009; Schulz and Fraillon 2011; Schulz et al. 2018b).

From ICCS 2009 to ICCS 2016

ICCS 2009 was designed as a baseline study for future ICCS cycles. One primary goal of ICCS is to monitor trends in civic learning outcomes over time for countries that participate in more than one cycle. In ICCS 2016, 19 of the 24 countries or sub-entities participating had participated in ICCS 2009. To allow measurement of changes, about half of the ICCS 2016 test items were secure item material from the previous cycle. Furthermore, many items in the student questionnaire were kept with identical wording in ICCS 2009. There are 13 equated international, two European, and four Latin American questionnaire scales available for comparisons between ICCS 2009 and 2016.

While it was possible to accommodate a wide range of comparable material in the ICCS 2016 instruments, there was also a need to refine the framework and update the instruments to encompass new developments. At the outset of the second ICCS cycle, we defined three focus areas for new items:

- **Environmental sustainability in civic and citizenship education:** In many societies, the potential impact of human activity on the environment (in particular the global climate) and environmental sustainability had become key issues. Responsible citizenship was increasingly viewed as including regard for environmental protection, a requisite for future sustainable development (Dobson and Bell 2006; Hayward 2006).
- **Social interaction at school:** Reviews of civic and citizenship education curricula across countries provide evidence that at the outset of the 21st century a large number of countries place emphasis on non-formal aspects of civic learning through participation and engagement or social interaction at school, and research had increasingly recognized the importance of relationships within the school community. Some of these were positive and others related to conflict and bullying (Dijkstra and de la Motte 2014; Scheerens 2011).
- **The use of new social media for civic engagement:** There was growing evidence about the importance of new social media and this has been found to have a profound effect on civic engagement among young people (Anduiza et al. 2012; Banaji and Buckingham 2013).

Two further areas were identified that had been included in previous IEA surveys as deserving more explicit acknowledgement in the ICCS 2016 assessment framework:

- **Economic awareness as an aspect of citizenship:** Some believe that students' economic awareness can be conceptualized as a broad awareness of the ways in which economic issues influence citizenship without referring to financial or economic literacy (Citizenship Foundation 2013).
- **The role of morality in civic and citizenship education:** Concepts of morality and character are often invoked in relation to outcomes of civic and citizenship education programs, the assessment framework provides scope for this in the ICCS 2016 instruments (Oser and Veugelers 2008).

3 ICCS used weighted likelihood estimates (WLE) (Warm 1989) instead of maximum likelihood estimates (MLE), used a different reporting metric, and also used a slightly different method for describing questionnaire scale scores in order to (1) make the questionnaire scale metric consistent with the one for the cognitive scale (in CIVED: 10/2 corresponding to 100/20, in ICCS: 50/10 corresponding to 500/100), and (2) to provide a more robust way of mapping scale scores to item responses.

There were only minor changes to the overall structure of the framework as a result of this conceptual refinement. However, there was some more explicit recognition of terms and key concepts important to these new areas (see Schulz et al. 2016). New material was developed covering the focus areas to capture relevant aspects.

A challenge was to balance the preservation of material to measure changes over time with the development of new material. While rotated booklet design for the cognitive assessment facilitated this, there were limitations in the length of the student questionnaire covering contextual information, attitudes and engagement. The ICCS 2016 student questionnaire was of 40 minutes duration, administered after the 45-minutes test of civic knowledge. In countries in Europe and Latin America it was followed by the 15-minute regional questionnaires.

In 2016 question sets gathered data in three new focus areas: students' use of internet and social media for engagement, perceptions of social interactions at school, and perceptions of threats to the world's future. Some ICCS 2009 student questionnaire items were deleted: support for political parties, internal political efficacy, perceptions of students' influence at school, and students' interest in different areas.

The item set measuring students' endorsement of immigrant rights was included in the European questionnaire but no longer in the international questionnaire. However, during the time of the ICCS 2016 administration, there was a dramatic increase in migration, resulting from violent conflict in African and Middle-Eastern countries as well as in Latin America (due to the political, economic, and social crisis in Venezuela and some Central American countries) and in ICCS 2022 this scale will be reinstated in the international instrument.

Changes were also made to the ICCS 2016 student questionnaire. The question gauging students' perceptions of democracy was revised by developing an item set asking students about good, bad, or neither good nor bad situations for democracy in a country. These items were concentrated on what are widely assumed to be "threats," such as "one company owning all the newspapers." New items asked about students' willingness to consider participating in civic activities at school in the future.

Material was added to the teacher and school questionnaires about aspects of social interaction, use of social media or the internet at school, and school activities related to environmental sustainability. The national contexts survey was also amended to ask about these topics.

Looking Ahead: Going into ICCS 2022

As the development of the next cycle of ICCS with a data collection scheduled for 2022 has commenced, it is timely to reflect on the challenges for this fifth IEA study of civic and citizenship education. As for ICCS 2016, in collaboration with national centers and experts, the international research team developed new focus areas and conducted a thorough review of existing item material. Once again, it will be important to balance material relevant to current challenges with the requirement for measuring changes, for which the same measures across cycles are required.

ICCS 2022 will include material to assess aspects related to sustainable development, students' use of digital technologies for engagement, students' perceptions of diversity, and students' views of the political system. Furthermore, the study will put greater emphasis on issues related to global citizenship, an area which had already been part of earlier IEA studies of civic and citizenship education. All these themes respond to recent developments and continuing challenges (such as growing concerns about global sustainability, globalization, increasingly diverse societies, changes in how citizens obtain information and engage, or their alienation from democracy). In view of more recent changes that occurred during the development of the study cycle in 2020, ICCS 2022 will also address civic-related aspects related to the COVID-19 pandemic such as students' perceptions of the appropriateness of restrictions imposed by governments in a national emergency.

The introduction of computer-based delivery is an optional method-related change in this new cycle, which has been taken up by two thirds of participating countries. While studies such as TIMSS and PIRLS were already transitioning to this new delivery form, ICCS 2016 administered its student instruments on paper, although teacher and school questionnaires were offered online as an optional delivery mode.

Apart from having practical advantages for the implementation of ICCS and adapting this newer standard of assessment methodology, there are a number of other benefits. Given the increasing importance of the internet and social media for communication about civic-related issues, computer-based assessment provides opportunities for measuring student's cognitions in a more authentic environment (e.g., in relation to interpreting web-based information on environmental issues). Furthermore, there is also evidence that respondents tend to be more open to expressing attitudes and beliefs in a computer-based environment (Feigelson and Dwight 2000).

A major challenge with such a transition is the comparability of data across two delivery modes, both for trend measurement (from previous cycles) and within the same study (i.e., computer-based vs. paper-based). Therefore, the upcoming ICCS cycle will include procedures to review potential mode effects. While there is a potential for observing such effects, results show that there is considerable consistency regarding the measurement of constructs (Fishbein et al. 2018).

Conclusions

International studies of civic and citizenship education investigate a learning area that is influenced by changes in societies. Each of the first three civic-related studies was developed in response to recent events. For CIVED 1999 the recent transition from communism to democracy in Eastern Europe was an important contextual factor that influenced interest in and development of this study. The broadening notions of civics and citizenship with a greater emphasis on active engagement and the situation in the aftermath of the 9/11 attacks were influential when building ICCS in 2009. The further growth of digital technologies and their implications for communication and engagement as well as the changing notions of citizenship (i.e., national vs. supranational or global citizenship) had an impact on the second cycle of ICCS in 2016 and will continue to be important for 2022.

Experience with the last three IEA studies of civic and citizenship education demonstrates that certain flexibility is required to reflect changes in topics, which are determined at the beginning of each study by the international research teams in collaboration with experts and country representatives. Changes to design and methods are less desirable in studies intended to monitor trends, and have been minor since ICCS 2009.

However, the upcoming third ICCS cycle faces the challenge of transitioning to a computer-based assessment. This corresponds both to the general trend toward digital data collections and the potential represented by the new features offered by this assessment mode. ICCS will continue to aim at reporting of changes over time, both for cognitive and affective-behavioral measures, and will incorporate procedures that examine mode effects and allow any necessary adjustments.

One invaluable benefit of IEA studies is their provision of databases for secondary analyses. For example, the datasets from IEA studies of civic and citizenship education are also available at CivicLEADS.org and have been widely used. A recent review found about 100 articles reporting secondary analysis of CIVED and ICCS 2009 data (Knowles et al. 2018). Across the first ICCS cycles some measures were based on exactly the same question stem, item wording, and response category format. However, comparisons between CIVED 1999 and later administrations should be undertaken with caution (except for the content knowledge subscale for which equated scales score were provided in the ICCS 2009 database).

The development of the IEA studies on civic and citizenship education since 1999 shows that there is a need to adapt study content to new developments, as well as occasionally to update design features and methodological aspects. Changes are essential in order to capture relevant information about a learning area that is strongly influenced by societal and contextual changes over time. The challenge for these studies is to achieve an appropriate balance between monitoring changes over time and at the same time providing data that are informative and timely with respect to current issues and recent developments.

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