Teachers’ Educational Experience And Confidence In Relation To Students’ Civic Knowledge Across Countries

JUDITH T ORNEY-PURTA, WENDY KLANDL RICHARDSON, AND CAROLYN HENRY BARBER, University of Maryland

ABSTRACT While policy-makers and educators have paid increasing attention to the importance of civic education, little is known about how teachers’ knowledge and beliefs influence students’ development in this area. Most research focuses either on teachers of civic-related subjects or on their students (not linking them) and is conducted in one country (often with small samples). This analysis uses survey data from the IEA Civic Education Study to explore teachers’ knowledge and beliefs and how they relate to their students’ civic knowledge. First, we examine how teachers responded to questions about their professional development, confidence in teaching, and attitudes towards civic education in eight countries. Second, we explore how the average teacher’s educational experience in a country relates to the average student’s civic achievement in that country (using pairs of scores from 27 countries). Finally, within three countries we explore how teachers’ educational experience and confidence relate to civic achievement. Teachers’ educational experience relates to students’ civic achievement both at the between-country level and when analyzed within the United States. Teachers’ confidence in teaching political topics relates to students’ civic knowledge in Hungary. Neither teachers’ experience nor confidence relates to students’ civic knowledge in Finland. Further model building is suggested.

Introduction

In the 1990s, the process of democratization in many post-communist countries and the decline of youth engagement in conventional forms of citizenship such as voting in other parts of the world brought attention to the potential importance of civic education. Reports on the status of citizenship appeared in several countries (e.g. 1998 Crick Report in England; Civic Expert Group report 1994 in Australia, The National Commission on Civic Renewal in the U.S. 1998). Some of these reports promoted research on adolescents’ knowledge, attitudes and engagement, as well as curriculum policies.

While earlier research among adults found secondary school completion to be related to political knowledge and participation, evidence for specific effects of civic education in school was less clear. Analysis of research data in the 1990s demonstrated that civic education conducted in schools plays a significant role in fostering citizenship. This instruction has always been more likely to be incorporated in history or social studies courses rather than found in a separate class.
called civic education or government (Niemi & Junn, 1998; Torney-Purta, 2002). A consensus has developed that an essential route to improvement in civic learning opportunities for students is to better prepare teachers, but there has been less consensus about how that preparation should take place. This is in part because of the lack of empirical data linking the preparation of teachers to the achievement of students in areas relevant to civic education.

The research that does exist on teachers and civic education has focused on teachers’ beliefs about the subject matter and on their knowledge. There is no conceptual model delineating how teachers’ knowledge, beliefs, and sense of confidence relate to each other or (as importantly) how they relate to the extent of initial teacher preparation, to participation in continuing or in-service teacher programmes, to curriculum standards, or to the ultimate goal of student learning, however. There has been more research on teachers of mathematics and several models have been proposed, although they cannot be generalized to civic education. Stodolsky and Grossman (1995) found that mathematics was viewed by teachers as a sequential, well-defined, and relatively static subject, while social studies was not. There was less press for content coverage in social studies classes than in mathematics. Further, teachers with several college majors were likely to teach civic-related subjects and to have different training needs.

Most studies in this area have sampled students or teachers but not both together. This article begins to address this gap in the research by examining data from the IEA Civic Education Study of 14-year-olds, which presents a unique opportunity to assess these issues from several perspectives. It is possible to look at the IEA data at the country level (28 countries), at the school level (more than a hundred schools within each country), and at the student level (about 20 students in each school). Within each country participating in the IEA Civic Education Study, a representative sample of schools was drawn and a class of students within each school was also drawn randomly. At the time when the students were being tested, teachers of "civic-related subjects" who taught the tested students were asked to respond to a survey. Analyses linking teachers’ beliefs and experience to their students’ civic knowledge and attitudes, which previously were not possible, can now be conducted using this data set.

This article has two major purposes contributing to the long-term goal of identifying elements for a model of civic-related teaching, including teachers’ knowledge and their beliefs. The first purpose is to distil the wealth of information available from the IEA Civic Education Study to provide a description of teachers’ knowledge and preparation and of teachers’ beliefs about civic education in eight countries. The questionnaire administered to teachers included questions about their professional training and experiences teaching civics, beliefs about civic-related content and its place in the school curriculum. This current analysis provides more depth than was possible in the chapter on teachers in the IEA report, which dealt with twenty-six countries (Losito & Mintrop, 2001). Given the importance of cultural context in teachers’ professional development and curriculum implementation (Hahn, 1998; Kerr, 2002) we have identified a subset of countries representing regional and political differences, where a sample of teachers can be linked to the participating students and where available research can assist with the interpretation of statistical analysis. The eight countries chosen are the three English-speaking countries (Australia, England, and the United States), three of the Nordic countries (Denmark, Finland, and Norway), and two post-Communist countries (the Czech Republic and Hungary). Our choice has also been conditioned by the wish to add to the information previously published from the IEA Study. This
is the first presentation of the data from U.S. teachers compared to other countries in
the IEA Study because data from the United States were not in the Losito and
Mintrop chapter (2001). Further, in Australia, the Czech Republic, England, and
Hungary changes in civic education systems in the 1990s might have been expected
to lead to lack of teacher confidence (one of the factors we hoped to study). Finally,
the sample of teachers in Finland was well adapted to the planned analysis of
teachers linked to students. It seemed appropriate to include two other Nordic
countries for a regional context.

The second purpose of this article is to explore how teachers’ knowledge
(measured by a degree in a civic-related subject and participation in relevant in-
service training) and teachers’ beliefs (measured by self-reported confidence in
teaching civic-related topics) relate to students’ civic knowledge. The relationships
between data from teachers and from 14-year-olds are considered at both the
between-country level (using averages for the 27 countries where teacher data were
collected) and at the within-country level in Finland, Hungary and the United States
(three countries where one civic-related teacher can be linked to each class of
students tested).

The case studies of civic education from Phase 1 of the IEA Civic Education
Study show that civic-related topics are often embedded within courses such as
history and social studies (Schwille & Amadeo, 2002). Therefore, findings from
research in these areas have been included in this research review. We begin with
teachers’ knowledge and beliefs in general and then cover knowledge and beliefs in
civic-related areas.

**Teachers’ Knowledge**

Teachers’ knowledge refers not to one construct, but rather to many overlapping
constructs. In an historical overview of how teachers’ knowledge has been
conceptualized since the 1960s, Turner-Bisset (2001) identified six separate types of
knowledge for teaching, ranging from knowledge of the academic subject being
taught to knowledge of how children develop. From this, and from the categories of
knowledge outlined by Shulman (1986), she then identified twelve separate
knowledge types for a model of teaching. Some of these, including beliefs about the
subject and knowledge of the self, will be discussed separately as teacher beliefs.
Others, notably content (or subject) knowledge and general pedagogical knowledge,
provide the basis for our study on the role of knowledge in instruction. Content
knowledge is identified by Shulman as the amount and organization of knowledge in
a subject area. Pedagogical content knowledge is the way of “representing and
formulating the subject that makes it comprehensible to others” (Schulman, 1986,
p.9). Researchers acknowledge that teacher education contributes to both, but they
cannot always be clearly distinguished.

It would be ideal to have separate measures of these aspects of teachers’
knowledge available for a model of effects on students, but this is unlikely in the
foreseeable future. However, the IEA Civic Education Study did ask participating
teachers about their preparatory background (both in initial and continuing
professional education). This can provide a way of examining aspects of teachers’
knowledge in order to explore a model of teachers’ preparation for citizenship
education that could be validated with observational studies.

In studies of teachers the measurement of various types of teachers’ knowledge,
most notably of content and pedagogical knowledge, has taken several forms.
Measures often relate to educational experiences, and include teachers’ knowledge of subject matter, years of teaching experience, level of education (highest degree or academic qualification obtained), degree in a content area, number of subject specific courses, subject specific in-service training, and certification in a particular content area.

There has been no large-scale representative study of the relationship of these teacher characteristics to student outcomes in citizenship (nor social studies nor history). However, a study in the United States using the 1993 Schools and Staffing Surveys examined average data from teachers in relation to their state’s average achievement scores for students in math and reading from the National Assessment of Educational Progress (NAEP). Darling-Hammond (2000) found a significant and positive relationship between teachers’ certification together with degree in the field to be taught (aggregated to the state level) and states’ average student achievement scores. In reviews of previous research Darling-Hammond (2000) and Goldhaber (2002) concluded that a teacher’s years of experience and level of degree were not as valid in measuring subject matter expertise as were degrees in the subject-area, courses taken in the subject, and content area certification.

Another approach to teachers’ knowledge compares novice with expert teachers. Research in this area has found that novice teachers tend to use direct instruction with emphasis on transmission of content, while experts emphasize the construction of knowledge by the learner. Experts are also well versed in disciplinary concepts, epistemology and perennial tensions between themes in the subject matter. Calderhead (1996) concluded that in planning lessons expert teachers use knowledge of subject matter, effective classroom activities, student learning and classroom context. All of these elements could be addressed in teacher preparation programmes but some could be assessed only with studies including an observational component.

**Teachers’ Knowledge related to Civic Education**

While broad consensus exists about principles of democracy (Torney-Purta, Schwille, & Amadeo, 1999; Carnegie Corporation & CIRCLE, 2003), substantial disagreement exists even within a single country about the specific content of civics and social studies (Dinkelman & Hoge, 2004; Sexias, 2001). Thus assessing teachers’ knowledge base is difficult. There is some relevant research on expertise in the social sciences. In studies examining the problem-solving processes of novices and experts Voss, Tyler and Yengo (1983) and Torney-Purta (1992) found that those who have better organized knowledge were better able to address social science issues thoughtfully and more likely to seek information before making judgements. Wineburg (1991) explored the processes used by novices (high school students) and experts (historians) as they read historical text sources. Historians were more likely to employ complex strategies of corroboration, contextualization, and sourcing.

In a study of 60 expert and novice U.S. History teachers (identified by supervisors) Torff (2003) found that experts were significantly more likely to present lessons focused on higher order thinking skills and less likely to emphasize content for content’s sake. Factors such age, years of experience, overall educational attainment, subject matter studies and pedagogical studies were not consistently associated with the teachers’ levels of expertise, however.

A few studies have linked coursework in social science with teachers’ knowledge. Dinkelman and Hoge (2004) found that a course in politics, government, and citizenship produced gains in civic content knowledge and confidence to teach selected topics among preparatory teachers, but the results did not show them
achieving disciplinary expertise. Interviews with 18 social studies teachers about their concepts of justice and their teaching about justice led Makler (1994) to conclude that teachers’ reluctance to present criteria for evaluating theories of justice resulted from teachers’ insecurity with their academic preparation.

An exploratory study of four Australian teachers examined how their knowledge and beliefs influenced the implementation of a unit developed to address recommendations for civics laid out by a governmental expert panel. Dunkin, Welch, Merritt, Phillips and Craven (1998) concluded that teachers’ knowledge in areas where they had little expertise (such as the knowledge covered in this new unit) was influenced by self-initiated study that the teachers undertook prior to teaching the unit to students. While the teachers’ quick study provided them with basic knowledge, some factual errors were also noted. Decisions about what content knowledge should receive emphasis in classroom instruction were also influenced by teachers’ beliefs about individual students’ understanding, other educational objectives such as students’ involvement, or the community context. Despite the exploratory nature of this study it is notable because it links teachers’ knowledge with their classroom practice in a framework of government recommendations and professional development for a civic-related subject area.

Teachers’ Beliefs

The IEA Civic Education Study also asked participating teachers about their confidence to teach a list of civic-related concepts and about their attitudes towards citizenship education. Both attitudes towards citizenship education and confidence to teach it have been found to relate more to teachers’ beliefs about themselves as teachers and about the subject matter, rather than to their knowledge. Interviews with teachers in North America (Cole & Knowles, 1993) and Finland (Virta, 2002) have demonstrated that many attitudes towards subject matter develop prior to formal teacher education, while confidence in themselves as teachers develops during experiences in the classroom. This is in contrast to knowledge, which was shown in the previous section to be related to formal, subject-specific training. The review of research below corroborates that both teachers’ beliefs and knowledge, are important elements of a comprehensive model of teaching.

Pajares’ (1992) review of research indicated that teachers’ beliefs shape their classroom practices. However, despite a substantial amount of subsequent research, firm conclusions about the nature of the relationship between teachers’ beliefs, classroom practice, and student learning have not been drawn (Calderhead, 1996; Richardson, 1996). Beliefs are defined in different ways. Here we have focused on teachers’ beliefs about civic-related subject matter and about the effect of teaching civics on student learning, sometimes referred to as efficacy or confidence. Distinctions can be made between beliefs about the impact teaching in general has on students’ learning and beliefs that one can personally impact students’ learning. The majority of studies have considered general teacher efficacy using self-report measures (Labone, 2004) and have linked it to student outcomes such as students’ achievement in language arts and social studies and students’ motivation (Anderson Greene, and Loewen, 1988). Teacher efficacy has also been linked to teaching practices such as use of varied instructional activities (Fives, 2003).
Teachers’ Beliefs Related to Civic Education

Across and within cultural contexts it is apparent that teachers construct multiple models of citizenship. In some cases, teachers’ conceptions are inconsistent with models laid out by social studies researchers, national associations, education ministries, or community groups. In other cases, teachers’ conceptions closely reflect the national political discourse on citizenship.

In a cross-national study of teachers’ beliefs about citizenship, researchers in England (Davies, Gregory, & Riley, 1999), Australia (Prior, 1999), Russia, China, Hong Kong and the United States (Fouts & Lee, 2005) analyzed survey data from non-representative samples of teachers including their concepts of citizenship, their beliefs about influences on civic development, their views of threats to good citizenship and their perceptions of relevant classroom activities. Teachers across countries identified the social dimensions of citizenship as the most important (Fouts & Lee, 2005). In a closer review of teachers’ responses in England, Davies and his colleagues (1999) found conceptual differences between novice and experienced teachers and suggested different opportunities for professional development for each group. Initial teacher preparation programmes might provide student teachers with opportunities to tap relevant background knowledge or explore cross-curricular links. Experiences could be provided for practising teachers to gain knowledge of the community in which they teach or to integrate professional development into the school environment (Davies et al., 1999).

Prior (1999) found that Australian teachers, parents, and students were likely to endorse social aspects of citizenship and believed in the value of an approach to citizenship based on community consensus. These beliefs were not fully consistent with the policy outlines prepared by the Australian government, stressing a focus on historical and legal events in Australian history. Social studies teachers in Australia were more likely than other teachers to identify active orientation for citizenship and civic understanding (e.g. knowledge of current events or government) as important qualities of a good citizen. The emphasis on social aspects of citizenship supported by teachers, parents, and students was at odds with the formal curriculum.

Arnot and her colleagues’ (1996) analysis of focus group discussions and interviews with student teachers from England, Wales, Greece, Spain and Portugal found that they had difficulty explicitly defining the concept of citizenship and listing the characteristics of a ‘good citizen.’ However, it was possible to discern dimensions of citizenship present in their remarks that mapped onto more formal democratic theories. The student teachers’ concepts of citizenship were grounded in their cultural context. For example, student teachers in Greece and Portugal described possibilities for civic involvement, whereas student teachers from England and Wales focused on citizens as sceptics or on the effects of the state on people’s lives. Interestingly, these patterns also map onto the findings from the IEA Study, showing that adolescents in Greece and Portugal were considerably more positive about involvement than those in England or other parts of Northern Europe (Torney-Purta, Lehmann, Oswald, & Schulz, 2001).

Other studies suggest that while individual teachers hold different concepts of citizenship, teachers’ beliefs overall reflect national debates on the topic. Anderson and colleagues (1997) conducted a pilot study in one U.S. state and a larger study of teachers from a national professional organization for social studies teachers. There were differences in perspective by region, and between primary and secondary teachers. Four models were identified among the national sample: critical thinking, legalism, cultural pluralism and assimilationism. These reflected tensions in national
curricular debates about citizenship. In dealing with cultural pluralism, teachers were reluctant to deal with institutional inequalities. Wilkins (2001) found similar reluctance among students in a Post Certificate programme in England.

The Influence of Conceptual Beliefs about Subject Matter on Practice

A growing number of case studies indicate that teachers’ beliefs are varied and lead to differentiated instruction (Armento, 1996). However, the studies that have examined teachers’ beliefs and students’ understanding in social studies have been scattered in their methodologies, the context in which they were conducted, the teachers’ level of experience, and the specific subject matter investigated. They have often used very small samples.

In a case study following two preservice teachers from their social studies methods course through their first year of teaching Johnston (1990) found that the methods course and certification programme influenced the two teachers in “partial and differential” ways dependent on their beliefs and their comfort with different teaching practices. Schugurensky and Myers (2003) found evidence in an interview study of Canadian teachers for a life-long and life-wide process of acquiring the beliefs about society and political participation that were reflected in teaching civic-related topics. Wineburg and Wilson (1991) found some common beliefs about interpretation in history, textbook use and instructional strategies for two experienced history teachers who displayed very different teaching practices ranging from the teacher playing a largely invisible role during a student debate to a largely teacher-centred discussion. Bickmore (1991) found in observational case studies of four social studies teachers that their approaches to teaching about conflict depended on their conception of citizenship education. In case studies from the United States and Hungary, Cornett (1990, 2003) reported that teachers’ personal or practical theories influenced instruction. In a study of novice social studies teachers, Wilson and Wineburg (1988) found that beliefs about subject matter related to the teacher’s undergraduate degree were associated with differences in instruction such as an emphasis on facts versus interpretation. Varied beliefs about ways to define a subject can also lead to different types of planning. John (1991) found that British preparatory teachers in geography did not hold shared definitions of the subject and were more heterogeneous in planning than teachers in mathematics.

Other case studies demonstrate that classroom context can interact with teachers’ conceptual beliefs to influence instruction. The observed practices of three elementary teachers led VanSledright and Grant (1994) to conclude that concepts of citizenship education affected both explicit and implicit practices. Furthermore, they found that other dilemmas such as conflicts about content coverage, teacher-student authority and time demands also influenced the ways in which citizenship education was implemented. Merryfield’s (1998) classroom observations of teachers of world studies in one state also showed that teachers’ backgrounds and beliefs interacted in complex ways with student characteristics to produce different topic coverage and types of classroom instruction.

These small sample observational studies give some evidence that teachers’ beliefs shape classroom practices. The nature of this effect is influenced by factors such as teachers’ knowledge of student needs or curriculum content standards (Torney-Purta & Vermeer, 2004)

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Information about Teachers from the First Phase of the IEA Civic Education Study

The IEA Civic Education Study of 14-year-olds (1994–1998) consisted of two phases, the first a more qualitative set of case studies and the second a quantitative test and survey administered to nearly 90,000 students in 28 countries. These case studies from the first phase provided contextual information for constructing the instruments and interpreting teachers’ experience and confidence as well as the student tests and surveys. For analysis within and across countries of Phase 1 data, see Torney-Purta, Schwille, and Amadeo (1999) and Steiner-Khamsi, Torney-Purta, and Schwille (2002).

The case studies for the countries selected for this analysis indicated that the majority of teachers providing instruction in civic-related subjects had their initial training in history or social studies (Mintrop, 2002; Torney-Purta et al., 1999). Most reported more years of teaching experience than years teaching civics, indicating that somewhere in their career they began teaching civic content. Teachers in the post-Communist countries were likely to have begun teaching civics relatively late in their careers.

The degree of confidence teachers reported about teaching civics varied as a result of their experiences and the cultural context (see individual chapters in Torney-Purta, et al., 1999). For example, substantial numbers of pre-service teachers in England did not feel comfortable teaching civic content because of the lack of its emphasis in the national curriculum in force in the mid-1990s. Teachers in Hungary reported reluctance to discuss sensitive issues in class for fear of the appearance of bias. The emphasis on theoretical aspects of civic education in initial training, combined with a shift to democratic principles from Marxist-Leninist ideas, presented challenges to teachers in the Czech Republic. Some teachers in the United States noted that they drew on personal experiences rather than academic training when teaching civics. Overall the teachers in Finland appeared to have relatively high levels of confidence about teaching civics, and the very large majority had a master’s level degree.

Data from the IEA Teacher Survey in the Context of the Phase 2 Study

The test and survey administered to students in Phase 2 was built on the case studies and research in a range of fields (see Appendix A for background about the study). A sampling referee met with each National Research Coordinator to design the sampling plan, designate strata and draw a random selection of schools and a class within each school (see Schulz & Sibbers, 2004). In 1999 teachers were administered a survey in 27 of the 28 countries that surveyed 14-year-olds (not in Colombia). In each school where students were tested between one and three teachers were identified who taught subjects such as government, national history, social studies, and social sciences and were asked to fill out the Teacher Survey by the national coordinating team. While it was preferred that the three sampled teachers could be linked to the class of students who filled out the survey (i.e., they taught these students), other teachers of civic-related disciplines were surveyed if one or more teachers could not be linked to the tested class. The student samples were nationally representative; the samples of teachers were not.

Once teachers were identified, they were administered a survey about their teaching background and methods, their experience and confidence in teaching various civic-related topics, and their attitudes towards civic education at school.
Losito and Mintrop (2001) provide additional information on how teachers were selected for surveying, as well as an overview.

We focus our analysis on teachers’ background knowledge (initial educational preparation for teaching and subsequent professional development experience) and on their beliefs about civic education (confidence about teaching civic-related topics). Teacher efficacy has been linked to student outcomes but has not received much attention in research on civic education. The IEA survey of teachers had two sections relating to teacher efficacy. The first section assessed the degree to which teachers believe civic education makes a difference for students and matters to the country. Nearly 90 percent of the students had teachers who agreed or strongly agreed that teaching civic education makes a difference for students’ political and civic development and that schools play an important role in this development.

The IEA teacher survey provided some items that measured teachers’ personal efficacy by gauging their confidence to teach about civic-related topics. Having confidence about a topic may be related to the ability to convey information to students. The average level of confidence across topics is fairly high across the countries selected for this analysis.

This analysis explores the results of the teacher survey in several new ways. First, we present descriptive analyses of both the linked and the non-linked teachers in the eight countries we selected. Second, we summarize results from exploratory factor analyses, which we have used to identify dimensions underlying teachers’ beliefs about civic education. Third, we compute average teacher scores in each country and relate them to an average student knowledge score at the country level. Finally, in three countries we relate teachers’ responses to questions about their educational experience and their confidence to their students’ civic knowledge with a scale developed from student data using Item Response Theory and reported in publications focusing on student results (Torney-Purta et al., 2001 and Torney-Purta & Richardson, 2004).

Selection of Variables from the Teacher Survey

We divided the variables from the teacher survey to be analyzed into three categories. First, we defined teacher experience in terms of professional education and training. The two questions are whether the teacher holds an academic degree in a civic-related discipline, and whether the teacher has participated in in-service professional development activities in a discipline related to social studies or civic education. We formed a three-point composite experience score for this descriptive analysis (1 = participation in neither activity, 2 = either holds a civic-related degree or has participated in in-service professional development, 3 = both holds a civic-related degree and in-service professional development experience).

The second group of variables captured teachers’ confidence in teaching civic-related subjects. Losito and Mintrop analyzed teachers’ confidence by computing average ratings in a way that did not allow an analysis of topics by countries. In a more differentiated approach, we used exploratory factor analysis in each of the eight countries and extracted two separate factors that appear to underlie teachers’ confidence in teaching civic topics. We created composites to measure each of these two types of confidence. The first, labelled “confidence in teaching political topics,” averages teachers’ confidence in teaching about citizens’ rights, conceptions of democracy, the national constitution, elections, and the judicial system (Cronbach’s alphas, which measure the reliability of scales, range from .65 to .93 in each country). The second, “confidence in teaching social topics,” averages teachers’
Teachers’ Educational Experience

confidence in teaching about equal opportunities, cultural differences, and the media (Cronbach’s alphas range from .60 to .84). Each composite is a scale of 1 to 4, 1 indicating that the teacher strongly disagreed with all items and 4 indicating that they strongly agreed with all items. We emphasize confidence in teaching political topics because of its higher reliabilities and because political topics were heavily covered in the students’ test and likely to be prescribed for coverage by national curricula.

The third and final category of teacher survey items examines teachers’ attitudes towards civic education. Three sets of attitude items are discussed here. The first assesses teachers’ beliefs that consensus exists in how civic topics should be taught in school. Included are items related to how teachers should teach (e.g., according to standards), as well as whether a country’s political and social context allows consensus about civic education. The second asks teachers whether they believe that civic education in schools makes a difference in students’ development or for the country. The third asks teachers where they believe civic education belongs in the school programme (e.g., as a separate subject, integrated into subjects). All items and the importance composite are on a scale of 1 to 4.

In the descriptive analysis we computed average scores of the items and composites previously identified for each of eight countries. In order to give further context, we described how countries’ average levels of teachers’ education experience and confidence related to the average levels of civic knowledge possessed by students in all twenty-seven countries where teacher data were available. Because the averages in both types of descriptive analysis included both teachers who were and were not linked to students, these data were not weighted.

A Descriptive Analysis of Teachers’ Educational Preparation and Beliefs in Eight Countries

Several aspects of teachers and their beliefs or attitudes are of particular interest. First is the extent of their professional preparation (both in initial or pre-service phases and through in-service training). The education and training systems differ a great deal in different countries in what is available and what is required (and in the extent to which older teachers have had the same opportunities as younger ones). There are also differences in the extent of overlap between what is covered in the teachers’ education and the content knowledge they are expected to teach.

In Australia, Denmark, Finland, England, Hungary and the United States more than seventy-five percent of the teachers reported that they took their degree in a civic-related discipline (including history) (Table I). In contrast, only about 55 percent of the teachers in the Czech Republic, and Norway completed their initial or pre-service preparation with a degree in a civic-related subject. The extent of in-service experience also varied. In Denmark, one hundred percent of the teachers reported this experience, ranging down to 7 percent in Norway. We do not know, however, the nature of the training offered.

Teachers were asked to rate their confidence in teaching a number of specific topics. Two composites were formed – one of confidence or perceived efficacy in teaching about political topics (such as the constitution or the judicial system) and the other about social topics (such as cultural diversity and the media) (Table I). Overall the greatest confidence in teaching about political topics was found among teacher respondents in Australia, Finland, and the United States. The lowest confidence in teaching about political topics was found among respondents in the Czech Republic, England, Hungary, and Norway. Three of the countries with high

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Teachers expressed comparable levels of confidence in teaching political and social topics except in England. English teachers were considerably more confident about social topics than about political topics, perhaps because for many years prior to this survey in 1999 they had not been expected to teach political topics, while they addressed social topics in subjects such as personal and social education, religious education, geography and history. In Australia and the United States teachers were relatively confident about teaching both political and social topics. Hungarian teachers were confident about teaching neither political nor social topics. Teachers in the Czech Republic were slightly more confident about social than about political topics. Finnish teachers were the opposite – more confident about teaching political than social topics.

Responding teachers in most of the countries agreed that civic education has the potential to make a difference for students and for the country (Table II). Schools are not irrelevant in developing students’ citizenship competencies, according to most respondents. Teachers in the United States, which has a long tradition of education
for citizenship, were the most convinced about the value of civic education; teachers in the Czech Republic were the least convinced.

An interesting item about teachers’ and students’ power asked whether teachers should negotiate with students about learning (Table III). Norwegian teachers were the most likely to agree, with teachers from Denmark and Finland also responding in a positive way. Teachers in the Czech Republic and the United States were least likely to want to share this power with students. These were also the countries where teachers believed that teaching to meet curricular standards was especially important, giving little opportunity for student input.

Table II - Teachers’ Beliefs about the Importance of Citizenship by Country

<table>
<thead>
<tr>
<th>Country</th>
<th>Civic Ed. makes a difference for students’ development</th>
<th>Civic Ed. at school matters a great deal to our country</th>
<th>Schools are irrelevant for the development of students’ citizenship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>3.2 (.5)</td>
<td>3.2 (.6)</td>
<td>1.7 (.7)</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>2.6 (.7)</td>
<td>2.9 (.6)</td>
<td>1.8 (.6)</td>
</tr>
<tr>
<td>Denmark</td>
<td>3.1 (.5)</td>
<td>3.2 (.6)</td>
<td>1.6 (.6)</td>
</tr>
<tr>
<td>England</td>
<td>3.1 (.5)</td>
<td>3.0 (.6)</td>
<td>1.7 (.7)</td>
</tr>
<tr>
<td>Finland</td>
<td>3.2 (.5)</td>
<td>3.2 (.6)</td>
<td>1.6 (.6)</td>
</tr>
<tr>
<td>Hungary</td>
<td>3.2 (.5)</td>
<td>2.8 (.7)</td>
<td>1.7 (.5)</td>
</tr>
<tr>
<td>Norway</td>
<td>3.3 (.5)</td>
<td>3.2 (.5)</td>
<td>1.7 (.6)</td>
</tr>
<tr>
<td>United States</td>
<td>3.4 (.5)</td>
<td>3.4 (.5)</td>
<td>1.6 (.7)</td>
</tr>
</tbody>
</table>

Note: All columns contain means (on a 4 point scale). Standard errors of the means are in parentheses.

Civic-related material is not taught in a vacuum. Responding teachers in three of the countries where there had been recent changes in prescriptions for civic education (Australia, England and Hungary) agreed that "changes have been so rapid in recent years that teachers often do not know what to teach" (Table III). Teachers in Hungary were likely to disagree with an item about the existence of a consensus in society about what should be taught in this area. Teachers in England and Hungary were likely to subscribe to the belief that "there cannot be agreement on what should be taught in civic education." Responding teachers in England were also substantially less likely than those in the other countries to agree that "teachers should teach according to standards," perhaps because they were unsure what those standards were likely to be or because of a tradition of teachers’ independence in curriculum decisions.

As for the place of civic education in the curriculum, the integration of these topics in the social sciences or social studies was favored in every country except the Czech Republic (where a separate subject was preferred). Integrating civic education into all subject matters was not preferred in any of these eight countries.
Table III - Teachers’ Views of the Source of Content in Civic Education by Country

<table>
<thead>
<tr>
<th>Country</th>
<th>Broad consensus in our society about content</th>
<th>Teachers should negotiate with students</th>
<th>Teachers should teach according to standards</th>
<th>There cannot be agreement on what should be taught in civic ed.</th>
<th>Changes have been so rapid in recent years that teachers often do not know what to teach.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>2.4 (.7)</td>
<td>2.5 (.7)</td>
<td>2.9 (.7)</td>
<td>2.1 (.7)</td>
<td>2.5 (.7)</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>2.5 (.6)</td>
<td>2.1 (.7)</td>
<td>3.1 (.5)</td>
<td>1.9 (.5)</td>
<td>2.2 (.6)</td>
</tr>
<tr>
<td>Denmark</td>
<td>2.2 (.7)</td>
<td>2.7 (.6)</td>
<td>2.8 (.7)</td>
<td>2.1 (.7)</td>
<td>2.4 (.7)</td>
</tr>
<tr>
<td>England</td>
<td>2.4 (.7)</td>
<td>2.4 (.7)</td>
<td>2.5 (.7)</td>
<td>2.4 (.7)</td>
<td>2.7 (.7)</td>
</tr>
<tr>
<td>Finland</td>
<td>2.5 (.6)</td>
<td>2.6 (.6)</td>
<td>2.8 (.5)</td>
<td>2.0 (.6)</td>
<td>2.2 (.7)</td>
</tr>
<tr>
<td>Hungary</td>
<td>1.8 (.5)</td>
<td>2.4 (.7)</td>
<td>2.8 (.6)</td>
<td>2.2 (.6)</td>
<td>2.5 (.7)</td>
</tr>
<tr>
<td>Norway</td>
<td>2.4 (.6)</td>
<td>3.0 (.5)</td>
<td>2.8 (.5)</td>
<td>2.1 (.6)</td>
<td>2.1 (.6)</td>
</tr>
<tr>
<td>United States</td>
<td>2.6 (.7)</td>
<td>2.1 (.6)</td>
<td>3.1 (.5)</td>
<td>2.0 (.6)</td>
<td>2.3 (.6)</td>
</tr>
</tbody>
</table>

Note: All columns contain means (on a 4 point scale). Standard errors of the means are in parentheses.

Relationships between Teachers’ Educational Experience and Students’ Civic Knowledge across Twenty-seven Countries

In order to give a context for the analysis of teachers linked to students in three countries, Figure 1 presents a scatter plot which shows the relationship at the country level between average level of teacher education completed in each country (measured by the composite experience variable) and students’ average score on the 38-item civic knowledge test. The 27 countries are the units of analysis. The correlation coefficient that corresponds to this scatter plot is .456, with an N of 27 countries significant at the .01 level.

Countries where the teacher experience composite was high were countries where the students’ average knowledge scores were also high (for example, Poland, Finland, and the United States). The country where students had the lowest civic knowledge score, Chile, also had the lowest level of teacher educational experience. Cyprus and Hong Kong had average student knowledge scores that were higher than would be expected on the basis of teacher preparation. In contrast, Romanian teachers in the study had relatively high levels of educational experience, but their students performed relatively poorly on the test. Perhaps there was a substantial disconnect between the education offered in the degree programmes in which these teachers studied and the knowledge covered in the curriculum in 1999.

This analysis suggests that increasing the extent of teachers’ preparation in civic-related subject matter could be a viable strategy to improve students’ civic knowledge. Analysis that cannot be included in this paper because of space limitations indicated that there is no significant relationship at the country level between extent of teachers’ educational preparation and students’ expectations that
they will vote. There is, however, a significant relationship at the country level between teachers’ confidence in teaching political topics and the likelihood of students expecting to vote.

Figure 1 - Relationship between Teacher Experience and Student Civic Knowledge at the Country Level

**Relationships between Teachers’ Educational Experience/Confidence and Students’ Knowledge within Three Countries**

Our most important analysis investigates whether teachers’ experience and confidence in teaching civic-related subjects relates to their students’ civic knowledge and attitudes when analyzed within countries. In order to address this question, we performed a series of multilevel regression analyses using Hierarchical Linear Modeling software (HLM: see Raudenbush, Bryk, Cheong, & Congdon, 2002). Using HLM allowed us to properly estimate the effects of both students’ and teachers’ characteristics on students’ civic knowledge. The analysis is very similar to an ordinary regression analysis in its design, but it allows us to take into account that students are nested within teachers’ classrooms. The purpose of these analyses is to explore how teachers’ confidence and experience influence the students that they teach in order to formulate more extensive models for future research.

This analysis focused on students and teachers in Finland, Hungary, and the United States. In the data from these countries, there is generally one teacher per school linked to the class of students surveyed, allowing for an estimate of the
effects of the classroom teacher’s characteristics on students’ civic knowledge. Classes of students were linked to one teacher each, and all teachers reported that they taught the class of students. However, we do not have information on the particular subject that these teachers taught (e.g., history, social studies, civics). The sample of linked teachers included 138 teachers in Finland, 149 teachers in Hungary, and 71 teachers in the United States. The average number of students per linked teacher was 19 in Finland, 21 in Hungary, and 23 in the United States. Because teachers were linked to students, and the student data were nationally representative, these data were weighted using the weighting factors included in the IEA Civic Education data set (see Schulz & Sibbern, 2004). Appendix B contains more information on teacher selection in each country.

Students’ civic knowledge was the outcome explored in this analysis. The civic knowledge scale assesses students’ content knowledge and interpretive skills measured by the IEA Civic Education Study with a 38-item test. The scale is set to have a mean of 100 and a standard deviation of 20 across all twenty-eight countries. The intraclass correlations (ICCs) [1] calculated in HLM indicate that while only 8% of the variance in students’ civic knowledge exists between classrooms in Finland, over a quarter of the variance in scores exists at this level in the other two countries (26% in Hungary, 30% in the United States).

Two sets of multilevel analyses were performed for each country. The first used teachers’ previous experience in civic education to predict their students’ civic knowledge. Teacher experience was measured using a series of dichotomous variables (“dummy variables”): whether the teacher holds a degree in a civic-related discipline (but has no professional development experience), whether the teacher has had civic-related professional development experience (but no civic-related degree), or whether the teacher has both a degree and professional development experience. The group of teachers with neither type of experience acted as the reference category (and the mean scores for this group appear in the first column of the Table). The dummy-coded variables at the teacher level were centred on their means across all teachers. The second analysis used a re-coded version of teachers’ ratings of their confidence in teaching political topics to predict student outcomes. We chose this scale because of the focus on political topics in the civic knowledge test. Teachers were designated as having confidence in teaching political topics if they scored 3 or above on each scale, meaning that they agreed that they have confidence in all topics in each scale.

Table IV - Summary of HLM Intraclass Correlations and Home Resources

<table>
<thead>
<tr>
<th>Total Civics Achievement</th>
<th>ICC</th>
<th>% Between-Class variance accounted for by Books in Home</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finland</td>
<td>.08</td>
<td>20%</td>
</tr>
<tr>
<td>Hungary</td>
<td>.26</td>
<td>66%</td>
</tr>
<tr>
<td>United States</td>
<td>.30</td>
<td>56%</td>
</tr>
</tbody>
</table>

Each model also controlled for the number of books that students reported having at home, common in IEA analysis to control for home educational resources. The control variable was included both at the student level and at the classroom level. Including this variable in the analysis allows us to account for differences between classrooms in the average educational resources available to students at home, as
well as to control for the effects of being in a classroom with a certain level of home resources. A summary of the proportion of between-class variance explained by home resources is found along with a summary of intraclass correlations in Table IV. All the analyses attempted to explain classroom-level variance in student outcomes after controlling for students’ home resources and classes’ average levels of home resources.

Table V - Difference in Students’ Civic Knowledge IRT Scores by Teachers’ Type of Civic Training in the United States

<table>
<thead>
<tr>
<th></th>
<th>No Experience</th>
<th>Change for Degree only</th>
<th>Change for Professional Training only</th>
<th>Change for both Degree and Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Achievement</td>
<td>106.31 (1.06)</td>
<td>n.s.</td>
<td>+11.02** (2.90)</td>
<td>+6.04** (1.45)</td>
</tr>
</tbody>
</table>

* p < .05; ** p < .01

Note: The first column contains the mean knowledge score for students taught by teachers who neither hold a degree in a civic-related subject nor have had in-service training. Standard errors are in parentheses. Student report of books in the home controlled for at the student and teacher levels.

Teachers’ educational experience related to students’ civic knowledge only in the United States (Table V). After controlling for home resources, U.S. teachers’ professional development experience related positively to students’ civic knowledge. In particular, students who had teachers with in-service professional development experience but no degree had civic knowledge scores that were a half of a standard deviation above those of students who had teachers with neither degree nor in-service, a statistically significant and relatively substantial effect. The effect of having a teacher with both in-service professional development and a degree was also significant. Students of these teachers had civic knowledge scores that were approximately one-third of a standard deviation higher than students of teachers with neither type of experience. Students of teachers who held a degree in the subject but had no in-service professional development did not differ from students of teachers with neither type of experience. In the analysis over all the categories, experience accounted for 1% of the between-classroom variance in civic knowledge (after controlling for home resources). The teacher educational experience variables did not predict civic knowledge in Finland or Hungary.

Table VI - Difference in Students’ Civic Knowledge IRT Scores by Teachers’ Confidence in Teaching Political Topics in Hungary

<table>
<thead>
<tr>
<th></th>
<th>Low Confidence in Teaching Political Topics</th>
<th>Change for High Confidence in Teaching Political Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Achievement</td>
<td>101.18 (.52)</td>
<td>+2.21* (1.00)</td>
</tr>
</tbody>
</table>

* p < .05; ** p < .01

Note: The first column contains the mean knowledge score for students taught by teachers with low confidence. Standard errors are in parentheses. Student report of books in the home controlled for at the student and teacher levels.

The analysis relating teachers’ confidence in teaching political topics to student knowledge produced significant results in only one country, Hungary (Table VI).
Having a teacher with high confidence in teaching political topics had a small but significant positive effect on students’ civic achievement, with a difference in average civic knowledge scores of one-tenth of a standard deviation. In the analysis across categories, teachers’ confidence explains 4% of the remaining between-classroom variance in student achievement scores. Teacher confidence did not predict civic knowledge in Finland or the United States.

After taking into consideration differences in home resources, it appears that teachers’ experience and confidence influence students’ civic knowledge outcomes in certain cases. To summarize our analyses of these IEA data collected in 1999:

- Neither teacher experience nor teacher confidence in teaching political topics was significantly related to student knowledge in Finland. This may reflect Finland’s emphasis on providing all students with similar learning experiences, and mirrors the results of analyses of PISA data (Gorard and Smith, 2004). This characteristic of Finnish education may also explain the low between-classroom variability in student civic knowledge scores, and the smaller effect of controlling for home resources, when compared to Hungary and the United States.

- In the United States teachers’ educational experience, but not teachers’ confidence, appears to influence student knowledge to a significant degree. While the overall impact of teacher experience on civic knowledge appears small after the effects of home background have been accounted for, the effects of in-service professional development on civic knowledge scores appear relatively sizeable.

- In Hungary, teachers’ confidence but not teachers’ educational experience seems to impact students’ knowledge. Students who have teachers with high confidence in their ability to teach political topics had higher civic knowledge scores.

- In Hungary and the United States over half of the variability in average knowledge scores between classrooms was related to the average level of home resources of the students in the classrooms. While teachers’ experience and confidence appear to influence their students, they work in tandem with many other factors, some of which could be assessed only in multi-method studies.

Discussion

This examination of aspects of teachers’ experience and beliefs can be related to previous research and can also be projected into future investigations. We have extended the findings from other subject areas by demonstrating that civic-related in-service experiences and civic-related degrees relate to students’ civic knowledge. This was true on an average level across countries and also within one of the three countries that we examined closely, the United States. This strengthens arguments for assigning teachers to subject areas in which they are prepared and providing in-service training which focuses on topics relevant to civic education (Carnegie Corporation and CIRCLE, 2003).

The absence of significant relationships between teachers’ educational preparation and students’ knowledge in the other two countries examined closely suggest that preparation may operate differently across contexts. In Finland almost 90% of the teachers who completed the IEA survey have degrees in civic-related subjects. The mean number of years they have been teaching is 15, and the mean number of years teaching civic education subjects is 14. These are, for the most part,
individuals who have spent their entire careers learning how to teach in this particular area. They believe that good instruction makes a difference, both for students and for the country. As other international studies have found, Finnish curriculum and instruction succeed very well in raising students to a high level of performance regardless of their socioeconomic background. The level of training that most teachers have is sufficient to foster high levels of student performance, and this may be the reason that we find no systematic variation associated with teachers having somewhat more or less educational preparation.

The situation in Hungary appears to be different. Teachers have been teaching on average for 19 years, but 13 years is the average time they have been teaching civic-related subjects. Many who have a degree in a relevant field completed it under the Communist system, before massive governmental and curricular changes. Teachers appear to be concerned about the rapidity of changes and whether there is sufficient consensus in society to teach without being accused of bias.

Results across these countries indicate that the relationship between civic-related degree programme and professional development and students’ civic knowledge is impacted to some extent by whether programmes are consistent with the curriculum on which students are assessed, the cultural context, or the concerns of teachers. The IEA Civic Education Study’s assessment of students’ knowledge was quite consistent with the concepts emphasized and very consistent with methods of assessing knowledge in the United States. Teacher preparation in the United States has not faced massive shifts and appears to be relatively well aligned with expectations for students. This may explain why the predictions of students’ knowledge scores by teacher’s educational preparation are significant in the United States. Making sure that all teachers have access to civic-related training appears a viable strategy in the United States. In the other two countries, the picture is less clear.

Hungarian teachers in this study were low among the eight countries in their confidence in teaching about political and social topics. It is notable in Hungary that the individual teacher’s level of confidence in teaching political topics was related to students’ knowledge. What we do not know is whether this pattern is common across the post-Communist countries. In countries where average confidence is higher, such as the United States and Finland, differences between individual teachers in confidence don’t seem to make a difference in students’ knowledge.

Something to keep in mind is that the combination of qualities that teachers need in order to foster knowledge on the part of students are more complex than confidence alone. The measure of confidence may be tapping teachers’ assessment of their personal abilities, but this confidence may not always translate into effectively helping students construct their own understanding. Careful consideration of this would require observational studies.

The overall conclusion is that the context of a country, both the history of its political system and the extent to which teachers’ preparation is consistent with the beliefs of the public and curricular policies governing education, are important components defining the effectiveness of educational programmes designed to raise teachers’ content knowledge and pedagogical knowledge (as well as their confidence in teaching about civic-related topics).

The analyses in this article should stimulate at least one activity that goes beyond the IEA Study: that is, to begin to develop a model with cross-national validity for assessing teachers’ knowledge and beliefs and for guiding educational or intervention programmes to improve teacher quality in civic education. These programmes need to be at the initial or pre-service and at the in-service or
continuing education levels, and they need to be tailored to particular cultural settings. These include post-Communist countries with both strong and weak academic systems and countries where certain economic, racial or language groups are likely by age 14 to have little knowledge and little motivation to participate, to give only two examples.

**Implications for Teachers’ Professional Development**

The results of our analyses suggest that initial teacher preparation and subsequent professional development influence students’ civic knowledge in some circumstances. The reason for the inconsistent effects across countries may lie in differences in the character or quality of teacher preparation and in-service programmes.

Previous research suggests the need for professional development focused on the ability to articulate the principles underlying citizenship and civic education (Davies et al., 1999). The current combination of initial preparation and in-service programmes may not be sufficient to produce subject area expertise among teachers. Valli and Stout (2004) note that in-service programmes in the United States tend to focus on generic teaching methods, innovative technologies or new curriculum materials. Other research suggests that merely introducing teachers to new curriculum materials will not produce dramatic changes in instruction. Dunkin and his collaborators (1998) concluded that presenting new materials prompted teachers to initiate self-study to enhance their own knowledge, but these short-term efforts did not lead to substantial improvements in the teachers’ subject knowledge or in their presentation of the information to students. The ways in which teachers develop their confidence about teaching and relevant content expertise is related to personal experience and context as well as to professional development programmes.

Some research has found that teachers’ content knowledge can be enhanced through the use of professional development that is aligned with both school context and teachers’ professional needs. For example, a large-scale study of professional development in mathematics and science in the United States found that an emphasis on enhancing teachers’ content knowledge through reform-oriented activities that were aligned with other school reforms had positive effects on teachers’ knowledge, skills and classroom practice (Valli & Stout, 2004). The alignment of professional development with school reform efforts seems well suited to the nature of citizenship education.

Another approach for enhancing teachers’ knowledge would be to facilitate cooperation between teacher preparation programmes and academic fields such as the politically-related disciplines. This could help increase the number of teachers of civic-related subjects who have experienced in-depth study of civic concepts. Teachers’ engagement in research in their classrooms or in the development of citizenship curriculum or standards may be strategies to stimulate reflection by teachers.

Our analyses also confirm previous calls for teacher preparation programmes in citizenship education to be developed within specific cultural and educational contexts (Hahn, 1998; Kerr, 2002). The descriptive analysis presented for eight countries demonstrates that responding teachers hold different views about the place of civic education in the curriculum and the level of consensus within the country about content relating to citizenship. The different relationship of teacher experience and confidence to student civic knowledge revealed from our detailed analysis in

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Finland, Hungary and the United States illustrates the importance of context. One way to gain more understanding about the role context plays in the development of teacher confidence would be to expand the concept of teacher efficacy to include tasks and settings outside the classroom. This could include efficacy to create a positive school climate or efficacy to enlist community involvement (Labone, 2004). Such a contextual approach to efficacy is especially relevant because there is consensus across countries that citizenship education extends beyond the boundaries of a single subject (Torney-Purta et al., 1999).

**Directions for Future Research**

In a number of the countries that participated in the IEA Civic Education Study a substantial degree of effort has been devoted to the development and implementation of new teacher education programmes in citizenship education. Empirical studies examining the qualities and outcomes of these programmes could provide a wealth of information for future development of a model of teacher preparation. For example, Davies and his colleagues (1999) identified several promising programmes in their review of civic-related teacher education in England. The Citizenship Education Longitudinal Study in England, initiated following the establishment of Citizenship Education as a new statutory subject in 2002, expects to identify many of the elements of teaching contributing to strong programmes (Kerr, in press). A cohort of 18,000 young people is being surveyed in years 7, 9, 11 and 13 by this study. More than 300 teachers are also being interviewed, and 20 case studies based on school visits are planned. Clusters of schools are being analyzed on the basis of instructional delivery, ways in which achievement is recognized, students’ involvement in classes, and democracy in school.

A number of universities in Hungary have implemented a programme offering a civic education minor to pre-service teachers (Setenyi, 2003) while the Center for Civic Education has established a number of Hungarian programmes (Pepper, 2003).

While the IEA Civic Education national case studies provided some information about teacher preparation programmes, more detailed and current cross-national data could provide insight for identifying the essential components of such programmes. A study of this type has been conducted in mathematics and science among the countries participating in IEA’s Third International Mathematics and Science Study (TIMSS), and has presented valuable suggestions about improving teacher preparation (Wang, Coleman, Coley, & Phelps, 2003).

It would be efficient to use existing data to further examine the influence of teachers’ characteristics on their students’ achievement, as well as to frame the development of measures for future studies. For example, in the United States, data on teachers of civic-related subjects could be extracted from the national Schools and Staffing Surveys and linked to student achievement on the National Assessment for Education Progress in Civics (if state-level data becomes available).

There are opportunities within the IEA data set for additional analysis, for example extending the within-country models beyond the three countries examined here. Countries where teachers’ confidence is low or where there has been recent decentralization of educational authority may be of special interest in understanding the context of civic education. Within the IEA data set there are also a number of other variables of interest. What do competent or confident teachers do in their classroom that is different from those less expert? Do they allow students more open discussion or cultivate a greater sense of efficacy at school? Do they create other kinds of participatory motivation (for example, for social-justice-related activities)
or a strong sense of institutional trust? In preparation for this article, some of our exploratory analysis found teacher confidence related to students’ intent to vote in the future.

This analysis has begun to fill an important gap in understanding teachers’ roles in citizenship education by exploring the relationship between teachers’ experience or beliefs and students’ civic knowledge. However, the design of the sample of civic-related teachers for the IEA study was not nationally representative in participating countries. The different ways in which civic education is implemented across and within countries could begin with rigorous studies of units smaller than a country in future research. For example, representative samples of civic-related teachers within a state in the United States or in Finland at a regional or local level could be studied. Case studies could also be included.

This article also explored several possible elements of a model for teacher preparation and professional development in civic education. Consideration of these elements descriptively across countries and in relation to data about student civic knowledge within a few countries could serve as the springboard for development of a wider array of valid and reliable ways to assess relevant teacher characteristics cross-nationally. The findings confirm the importance of teachers’ knowledge (measured by initial and in-service experiences) and teachers’ confidence about teaching political topics. Differences in the patterns of association of these elements to students’ civic knowledge cross-nationally shows what can be learned about teacher preparation from survey data examined within the context of schools and countries.

Correspondence: JUDITH TORNEY-PURTA, Department of Human Development, University of Maryland, College Park, MD, 20742, USA, jt22@umail.umd.edu.

About the authors:
Judith Torney-Purta has been a Professor of Human Development in the College of Education at the University of Maryland since 1981. She is the author or editor of six books reporting research on political knowledge and attitudes. One of the most recent was Citizenship and Education in Twenty-Eight Countries: Civic Knowledge and Engagement at Age Fourteen (reporting data from 90,000 students tested in 1999 in the IEA Civic Education Study in 29 countries).

Wendy Klandl Richardson is a Faculty Research Assistant in the Department of Human Development at the College of Education, University of Maryland, College Park, USA. She is a former social studies teacher and recipient of a Harry S Truman fellowship. Her dissertation earned the 2004 Bruce H. Choppin Award, which is awarded to an outstanding dissertation using IEA data.

Carolyn Henry Barber is a Graduate Fellow in the Department of Human Development in the College of Education University of Maryland, College Park, USA. Her research interests include the sociology and social psychology of education. She co-authored a report for the Council of Europe using IEA data and serves as a resource for researchers interested in using the IEA Civic Education Study’s database or instruments.

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NOTES

[1] HLM partitions the total variance in an outcome among the levels of analysis in a model. In this two-level analysis, the variance is partitioned between the student level and the classroom (or teacher) level. The intraclass correlation is the proportion of total variance that exists at the classroom level. This proportion represents the total amount of variability that can potentially be explained by teacher characteristics (classroom-level characteristics). The higher the intraclass correlation, the more the average level of civic knowledge varies between classrooms.

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Appendix A

Background of the IEA Civic Education Study

The International Association for the Evaluation of Educational Achievement (IEA), a consortium of educational research institutes in nearly 60 countries has been conducting comparative education studies for nearly 50 years. In the 1980s and early 1990s it focused on large-scale data collections on literacy, mathematics, and science (e.g. TIMSS, PIRLS). In the early 1990s some member countries, spurred by recent massive changes in political and social structures, asked for a study of civic education that included measures of young people’s civic-related attitudes and behaviours. Their aim was to study schools’ intentions and practice relating to democracy. The IEA organization brought to this effort a wide network of research institutes in different countries and a wealth of technical and methodological expertise in cross-national comparative education research (for example, in sampling and scaling).

Case studies were conducted in the first phase of the study that were used as the basis for a consensus process to develop content specifications for a test of students’ civic knowledge (with right and wrong answers) and surveys of political attitudes and civic behavior, as well as a short survey for teachers (See Torney-Purta et al., 1999; and Steiner-Khamsi et al. 1999).

The second phase of the IEA Civic Education Study began in 1997. An International Steering Committee, together with National Research Coordinators, constructed items, and then pre-piloted and piloted an instrument (a student test and survey) that would be suitable for younger and older adolescents and would take about two class periods to complete. The attitude survey included a number of scales drawn from political scientists’ surveys of adults. The teacher survey was designed to take about 15 minutes.

Nationally representative samples of students in the modal grade for 14-year-olds (a total of about 90,000 students from 28 countries) were tested in 1999; upper secondary students ranging in age from 16 to 19 (a total of about 50,000 students from 16 countries) were tested in 2000. See Torney-Purta, Lehmann, Oswald and Schulz (2001) and Amadeo, Torney-Purta, Lehmann, Husfeldt, and Nikolova (2002) for a description of scaling (IRT scales) and analysis of the 28 and 16 countries, respectively, for the 14-year-olds and the upper secondary students. See http://www.wam.umd.edu/~iea for further details including a list of participating countries.

Appendix B

Selection of Classrooms for Hierarchical Linear Modelling (HLM) Analysis and Missing Data

The IEA Civic Education Study surveyed 312 teachers in Finland, 150 teachers in Hungary, and 116 teachers in the United States. The following procedures were followed.

First, seven schools in Finland were identified as having surveyed more than one teacher per class of students. In four schools, only one of the two teachers surveyed reported actually teaching the tested class. In these cases, the teachers who did not teach the tested classes were removed from analysis. In one school, the second teacher reported teaching only two of the students in the tested class. This teacher
was also removed from the analysis. Two additional schools had two or more teachers each that taught the entire class of tested students. These schools were removed from analysis.

Second, teachers from 45 schools in the United States reported that they did not teach the classes of students surveyed. The teachers and students from these schools were also removed from analysis.

After these adjustments were made, 138 teachers in Finland, 149 teachers in Hungary, and 71 teachers in the United States remained for analysis. Due to missing data, two teachers in Finland, four teachers in Hungary, and one teacher in the United States were removed from the analysis of teachers’ experience. In the analysis of teachers’ confidence in teaching political topics, two teachers in Finland, three teachers in Hungary, and eight teachers in the United States were removed due to missing data. The students that they were linked to were also removed from analysis.

The number of students in each country included in analysis is 2723 in Finland, 3167 in Hungary, and 1587 in the United States. Students were removed from the analysis if they were missing data for an outcome variable or the books in the home variable. Less than 1% of students in each country were missing these data.