

## ABSTRACT

Title of dissertation: COMMUNITIES OF PRACTICE FOR THE DEVELOPMENT OF ADOLESCENT CIVIC ENGAGEMENT: AN EMPIRICAL STUDY OF THEIR CORRELATES IN AUSTRALIA AND THE UNITED STATES

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The relationships between a multidimensional model of school community and civic engagement were examined using survey data collected for the 1999 IEA Civic Education Study from large, nationally representative samples of adolescents in Australia and the United States. This study extends previous research by considering the extent to which multiple dimensions of communities of practice influence the development of various civic capacities, and by utilizing multilevel regression techniques. The investigation also examined the extent to which the various dimensions of communities of practice are related to more equitable civic outcomes, and how these associations vary in Australia compared to the United States.

All schools have some form of social and cultural context that influences learning. This study examined the influence of three specific dimensions of communities of practice in school, the *discourse community*, the *collaborative community*, and the *participatory community* on three capacities for civic engagement (civic knowledge, norms of democracy, and expectations for informed voting). Other measures of school structure, including individual socioeconomic background and school size and composition were also used in the analyses.

The results of the analyses suggest that important, yet subtle, distinctions exist between the association of the various dimensions of communities of practice and civic capacities in Australia and the United States. The findings from the fully conditional models, for example, indicate that both student level and school level perceptions of the communities of practice can help to shape adolescent civic capacities, although the patterns of relationships vary by dimension of communities of practice and measure of civic engagement.

This study offers support for the role of communities of practice in the development of student civic outcomes. Individual student participation in and supportive school contexts for positive communities of practice influences the development of adolescent civic engagement. Learning more about communities of practice and its influence on a broader range of civic capacities, especially in terms of the quality and the extent that communities of practice exist in schools, will help educators and schools to strengthen these connections.

COMMUNITIES OF PRACTICE FOR THE DEVELOPMENT OF ADOLESCENT  
CIVIC ENGAGEMENT: AN EMPIRICAL STUDY OF THEIR CORRELATES  
IN AUSTRALIA AND THE UNITED STATES

by

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## DEDICATION

To Sandy and Zachary,  
thank you for your love, patience, caring, and support.  
With you, my life is a remarkable journey.

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## CHAPTER 1

### Introduction

Historically, schools have served multiple purposes. While schools have played a critical role in the development of students' core academic abilities, they have also served as places that assist students in developing a range of other skills, understandings, behaviors, and attitudes associated with becoming members of society. Although critics have characterized this aspect of schooling as potentially oppressive, reproducing class structures that preserve the distribution of power and privilege (Bourdieu, 1997; Portes, 1998; Portes & Landolt, 2000), other theorists and researchers (Flanagan, Syvertson, & Stout, 2006; Hahn, 2005; Hess & Avery, 2008; Levine, 2007; Torney-Purta, Lehmann, Oswald, & Schulz, 2001; Westheimer & Kahne, 2004) have argued that schools can promote more positive outcomes for both individuals and society, including valuable democratic principles and even social renewal. According to these observers, a primary function of schools can be the preparation of students for active, meaningful civic engagement.

Schools in many countries primarily focus civic learning on what could be referred to as "conventional" political activities, such as understanding political systems, processes of law, and constitutions. These types of activities are often addressed through formal instruction that emphasizes lectures, facts, and historical content. The goal is to provide students with information about the political process that will enable them to be informed voters and participants in civic life. Formal assessments in these countries, which often rely heavily on multiple choice questions and short essays, reflect and, thereby, support this type of civic learning.

The term civic engagement challenges this narrow notion of civic learning in school. Civic engagement, as used by those who advocate a more expansive set of goals for civic learning (e.g., Levine, 2007; Torney-Purta, J., & Vermeer, S., 2004), encompasses a broader and more inclusive understanding of and participation in a range of political and nonpolitical activities. The term represents a view of civic learning that includes the development of a range of civic competencies—not just the acquisition of civic knowledge but also the acquisition of attitudes and dispositions that promote active civic participation, such as working with others to solve problems in schools and neighborhoods. This study embraces this more expansive definition of civic learning and investigates how formal and informal instructional practices influence the development of adolescent civic capacities in two, modern democratic societies: Australia and the United States.

Learning more about how schools in different countries influence the development of adolescent capacities for civic engagement has important policy implications because it focuses our attention on the social and cultural aspects of schools, particularly those characteristics that promote a healthy school environment and positive youth development. Understanding these aspects of schools across different countries also offers an opportunity for researchers, policymakers, and practitioners to gain broader insight into what it means to educate students for civic engagement from a multi-national perspective. There are also implications for democratic societies in general. Along with the creation of pathways for academic development, schools can help foster the development of students as competent, responsible, and capable citizens for the creation and maintenance of healthy, democratic societies.



Schools are places where learning is embedded within social experiences.

Although the socially embedded nature of schooling can constrain civic learning, it can also create powerful places in which students and adults come together to understand a range of views and opinions, places that cultivate attitudes and behaviors that contribute to the common good and the renewal of democratic societies. As such, schools are uniquely poised to facilitate students' understanding of how to engage in political and nonpolitical activities that promote democratic ends and more just policies (Galston, 2001; Torney-Purta, 2002). From this perspective, this empirical examination of the relationship between the social structures of schools and the development of student capacities for civic engagement can be seen as a practical exploration of the link between educational practices and democratic theory.

Emerging efforts to understand learning have led many education researchers to investigate the mediating role of culture and social context in the academic and cognitive growth of children. This theoretical perspective, sometimes referred to as the socio-cultural perspective (Vygotsky, 1986), or the view that learning is embedded within social experiences through interactions with other people and the environment, has the potential to bridge concerns about enhancing learning in both core subject areas and civic education. Although it has been widely applied to a broad range of academic areas, this theoretical perspective has played only a minor role in research that focuses on civic engagement, even though it has long been advocated as an appropriate approach for preparing students to become civically engaged (e.g., Dewey, 1916, and Torney-Purta & Richardson, 2003). Haste and Hogan (2006) have argued that investigating the social

contexts of schools is critical for the development of civic engagement. Accordingly, the socio-cultural approach is at the center of this investigation of civic engagement.

Education researchers who embrace a socio-cultural perspective on learning advocate for policies and practices that create what are often referred to as “learning communities,” “communities of learning,” or “communities of practice” (e.g., Calderwood, 2000; McLaughlin, & Talbert, 2006; Lave & Wenger, 1991; Retallick, Cocklin & Coombe, 1999; Wenger, 1998). These communities, which may be broadly conceived as encompassing schools or more narrowly conceived as encompassing classrooms and sets of activities, are thought to create normative expectations and forms of interaction supportive of students’ academic and social achievement. Although ground-breaking work suggests the potential utility of examining the link between communal structures in schools and the development of civic capacities (e.g., Torney-Purta, Homana & Barber, 2006), this area of research is relatively undeveloped. There is also limited research about how to measure these aspects or dimensions of community, especially as they relate to civic engagement.

This study uses the construct of “communities of practice” (Lave & Wenger, 1991; Wenger, 1998) to develop a conceptual framework for measuring and examining the communal aspects of schools that influence the nature of civic engagement. In this study, communities of practice are seen as social places or structures where students practice what it means to be thoughtful and engaged members of society. From this perspective, the power of a particular community of practice rests with the nature of the learning opportunities that it creates for students. Although not all communities provide positive environments for civic engagement (Portes, 1998; Portes & Landolt, 2000), in

this study communities of practice, by definition, represent a positive, inclusive, safe, and healthy learning environment for students. Communities of practice are social places or structures where students come together because they have common concerns, interact to sustain mutual agreement on issues, build mutual trust and respect for one another, and develop individual identities that encourage meaningful engagement in the social world. In communities of practice students are encouraged to make up their own mind about civic issues; feel free to express their opinions, even when their opinions differ from most other students; learn to understand others' views; learn to cooperate in groups with others; and act together to solve problems in their schools and neighborhoods. Exploring the role of communities of practice offers a way to understand the challenges and possibilities associated with encouraging forms of civic learning that promote positive social and cultural norms for the betterment of the student, the school, and society.

Although this study is exploratory and focuses primarily on developing and testing a conceptual framework that links communal structures in schools to adolescents' capacity for civic engagement, this line of research may have important policy implications. As noted by others who have adopted a socio-cultural perspective on learning (Deal and Peterson, 1999; Haste and Hogan 2006; Moos, 1979; Torney-Purta & Richardson, 2003; Vygotsky, 1986), this type of investigation can inform teachers about the importance of structuring learning experiences so that students engage in activities where they can share their views on issues that are important to them. In this way, students become active and engaged learners expressing ideas that are respected and listened to, making decisions regarding school and neighborhood-related concerns, and developing leadership skills. Through these types of experiences students have the

opportunity to explore who they are, understand the world around them, and achieve their full potential as both individuals and as members of their schools and local neighborhoods.

This line of research may also offer guidelines on how the school environment can be structured so that all members of a school work together to address school and neighborhood issues. Policymakers may be convinced by this line of research to develop policies that help create learning environments that are supportive, elicit high expectations, and cultivate the types of relationships among school members that promote positive values, identity, and social competency. In the end, understanding the influence of school communal structures on civic engagement has the potential to provide teachers, principals, policymakers, and researchers with the information that they need to make decisions that foster the civic capacities of all students as well as successful learning environments.

The preceding paragraphs have provided a broad overview of the study and the theoretical perspectives that inform it. The remainder of the chapter is divided into five sections. The first section discusses the purpose of the study. The second section describes the social, political, and educational context for an examination of the development of adolescent civic engagement in Australia and the United States. The next section examines in greater detail the study's conceptualization of civic engagement. The fourth section provides a review of the key theoretical concepts used in the study, including communities of practice and school climate, as the framework for analysis. The final section of the chapter presents the specific conceptual models and research questions addressed by the study.

## Purpose of the Study

The focus of this research is to learn more about the socio-cultural characteristics of schools and how these characteristics influence the development of civic capacities among adolescent students. The primary purpose of this investigation is to contribute to our understanding of whether three specific dimensions of communities of practice—the *discourse community* at school, the *collaborative community* at school, and the *participatory community* at school (Torney-Purta, Homana & Barber, 2006)—are associated with three specific capacities for civic engagement. These three capacities—students’ civic knowledge, beliefs about the norms of democracy, and expectations for informed voting—were selected because they represent different ways for individuals to understand and express their values and ideas on important civic and social issues and become informed and participatory actors in meaningful civic action. This study uses the notion of communities of practice to explore the utility of a socio-cultural approach to understand student civic engagement across schools while also considering issues of individual socioeconomic background along with components of school structure, such as size and composition.

Although the notion of communities of practice can be explored in multiple ways, this investigation focuses on student beliefs about the nature of the learning environment in their classrooms and school. For example, if students in a school believe that they have opportunities to cooperate with others, make up their own minds about issues, or work together to solve school problems, and assuming that those beliefs are at least somewhat reflective of what actually occurs in school, then those students have had experiences that are conceivably conducive to developing their capacity for civic engagement. Moreover,

if there is a relationship between students who report more opportunities to participate in these forms of activities and higher levels of civic competency, then it could be concluded that these forms of activities support the development of civic capacities among students. Framing the study in this way, allows for an examination of both individual student beliefs and the extent to which beliefs are broadly shared by peers (i.e., collective beliefs). In other words, students' personal beliefs about their learning environment *and* the beliefs of their peers about the learning environment in a school may influence civic outcomes. These collective beliefs may be thought of as capturing broader contextual factors associated with the normative and cultural aspects of schools.

Although this study examines both individual student and shared beliefs across the school by students, communities of practice are considered distinct from individual student learning experiences. As conceptualized for this investigation, the primary focus is on the collective nature of the school environment. The strength of the communal nature of communities of practice for civic engagement is reflected by the pervasiveness of the positive characteristics of these communities across the school, rather than just individual student's learning experiences and perceptions. It is also important to clarify that the three dimensions of communities of practice do not necessarily indicate three distinct and unrelated school communities. Rather, they are three dimensions of the same school environment. Although this study examines the independent influence of each dimension, this is not meant to imply that the dimensions are unrelated to each other (either empirically or conceptually).

Schools do not always consider the normative structures that shape learning outside of administrator and teacher beliefs about safety and discipline. Rather, policies

and practices are primarily focused on how to implement a school's formal curriculum. The normative structures may be just as important, if not more important, than the actual formal curriculum, however. This study emphasizes a positive conceptualization of communities of practice based on healthy norms of behavior, expectations, attitudes, and actions across various contexts of the school environment in which educating for civic engagement happens. The acquisition of civic capacities under this framework is not considered simply a body of knowledge or set of skills. Rather developing civic capacities reflects positive ways of thinking and behaving that support students' capacities for civic engagement. These positive ways of thinking and behavior are thought to be nurtured by both the formal curriculum and the normative structures that shape how members of a school community interact with each other.

The specific forms of communities of practice examined in this study differ from other naturally occurring communities that may espouse views that are detrimental to society, such as gangs or hate groups. In the context of this study, the development of rich, active communities of practice promote and strengthen students' civic engagement. A function of these communities, at least in theory, is to foster opportunities for students to apprentice themselves so that they develop the civic knowledge, skills, and attitudes that will help them become responsible and engaged adult citizens. In these civic communities of practice, students learn how to interact with each other and adults, engage in conversations about social and political issues, view common concerns through multiple perspectives, and develop the necessary participatory and leadership skills that enable them to address problems in their schools, neighborhoods, and perhaps even across the globe. An investigation that includes these normative and cultural aspects of

schools within the context of communities of practice may not only enhance our understanding of learning in general (e.g., civic knowledge), but also lead to opportunities for students to develop civic skills and values thought important to democratic societies (e.g., democratic values and expectations about voting).

Schools are composed of heterogeneous groups of people with different views and experiences who are brought together under the school roof for the intended purpose of learning. Schools are also viewed as mechanisms for the reproduction of class and other types of privilege (Bourdieu, 1997; Portes, 1998; Portes & Landolt, 2000).

Although the primary intention of the study is to explore the potential of communities of practice in schools and the underlying healthy characteristics of school that contribute to positive civic outcomes, this investigation does not ignore the possibility that some students have greater opportunities to obtain these outcomes. To address this possibility, this study examines the relationship between the socioeconomic background of students and their capacity for civic engagement in schools with different learning environments (i.e., different communities of practice). An additional purpose of this study, therefore, is to explore the possibility that specific forms of communities of practice may promote more equitable civic outcomes between individuals within schools.

This study is also undertaken to learn more about communities of practice and civic engagement in a country other than the United States. Comparative international work is particularly valuable in understanding the similarities and differences among students and schools across countries. Educational systems reflect a country's historical, economic, cultural, and political background as well as global influences, so an



international comparative study provides an opportunity to examine whether it is possible to replicate the proposed model for two different samples of students and schools.

This type of comparative study benefits from large-scale surveys of students, teachers, and schools. And, analytical techniques, such as hierarchical linear modeling (Raudenbush & Bryk, 2002), enable analysis of these large datasets to examine how communities of practice are related to civic outcomes at multiple organizational levels. For this study, data from the 1999 International Association for the Evaluation of Educational Achievement (IEA) Civic Education Study (Torney-Purta, Lehmann, Oswald, & Schulz, 2001) will be analyzed to examine how communities of practice are related to civic outcomes among adolescent students in Australia and the United States.<sup>1</sup> The IEA Civic Education Study is a cross-national study that measured the civic knowledge, attitudes and engagement of almost 90,000 adolescents in 28 countries. In addition to the student survey, the IEA Civic Education Study also had an explicit emphasis on the role that schools and teachers play in civic education.

Although this study focuses on only the samples drawn from Australia and United States, the IEA Civic Education Study offers a unique opportunity to understand the relationship between communities of practice and civic engagement within an international context. First, the study was cross-national, allowing analysis within and between countries. Second, the items and scales used in the study were developed

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<sup>1</sup> The twenty-eight countries that participated in the IEA Civic Education Study display a range of similarities and differences from education to political and economic institutions. Australia and the United States were two of the more comparable countries in that study. For example, Australia and the United States share similar governmental structures and exist as established democracies; educational systems with similar reform movements; orientations to free markets; and concerns regarding educating for civic engagement. A comparison of results from each country provides a more robust examination of the theoretical and empirical utility of a socio-cultural approach in general, and the communities of practice framework in particular, to understand how schools in modern, democratic societies can enhance capacities for civic engagement.

through a consensus process among the twenty-eight national country coordinators.<sup>2</sup>

Third, the study focused not only on understanding students' civic knowledge and skills, but also the school's role in educating for civic engagement. Finally, and perhaps most relevant, the study used a broad approach to examine the relationship of civic competencies to a range of socio-cultural school contexts, such as students' perceptions of opportunities to participate in open discussions in class, collaborate with others, and solve school and neighborhood problems.

#### Context for Civic Engagement in Australia and the United States

Australia and the United States are established democracies which arose from common colonial experiences based on English political principles. The United States developed a Constitution, Bill of Rights, and system of political checks and balances maintained by three separate branches of government. Australia, borrowing components from both England and the United States, developed a Parliament consisting of a constitutional monarchy and parliamentary democracy (the Queen and two Houses), along with a system of checks and balances. Australia has a Constitution but does not have an established Bill of Rights (Parliament of Australia, 2008).

Economically, Australia and the United States are largely free-market capitalist systems and are members of the World Trade Organization and the United Nations. Both countries maintain high levels of development on similar quality of living indicators, such as standard of living and life expectancy. Trade is strong between the two countries and a Free-Trade Agreement was ratified in 2004 (Department of Foreign Affairs and Trade, 2008).

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<sup>2</sup> This process was unique because it required agreement upon all items and scales among the national coordinators, not just a top-down approach. Each country was also able to develop its own items and scales reflecting that country's demographics, educational and political characteristics, and history.

Until the advent of European colonization, the hunting and gathering indigenous inhabitants—the Aboriginals and Torres Straits Islanders in Australia and various Native American tribes in the United States—occupied the lands of the two countries (National Aboriginal & Torres Strait Islander Website, 2008). Voluntary and involuntary immigration has played a vital role in the development of both countries. As a result, Australia and the United States can be characterized as immigrant societies. Since colonization, Australia has experienced an influx of people from Pacific Rim Asian countries, as well as from Arab countries. Throughout much of the history of the United States, immigration has been central to the economic and cultural development of the country, as it has experienced various waves of immigration from the continents of Africa, Europe, Asia, and Latin America.

Australia and the United States also have similar educational systems. Compulsory education exists for primary and secondary schooling in both countries. Approximately two thirds of the students attend government funded or public schools in Australia. In the United States about eighty-five percent of school-age children attend public schools. Australia has a system of open and select schools. Open schools accept all students and select schools primarily cater to academically advanced students. Although the United States is primarily an open and free educational system, it is increasingly developing a system of charter schools. The controversial voucher system is another option offered in the United States, although in a limited capacity. Approximately, ten percent of the students in both Australia and the United States attend private schools. The two countries report similar literacy rates of approximately ninety-nine percent (Department of Education, Employment and Workplace Relations, 2008).

## *Civic Education in Australia and the United States*

Since colonization attempts to incorporate civic education within the public education systems have been ongoing in Australia and the United States. When Australia gained independence from England in the early 20<sup>th</sup> century, civic education focused on developing and maintaining loyalty to Britain rather than to the political and social fabric of Australian society. During World War II, however, civic education lost its formal role as a distinct subject matter, when it became a part of history education. During the 1960s, civic education was integrated into the general social studies education curriculum. In 1994, concerns about the lack of a civically engaged population prompted the commission of a Civics Expert Group to explore the role of civics education in the school curriculum. The Commission's report, *Whereas the People... Civics and Citizenship Education* (Civic Expert Group, 1994) was released the same year that Australia agreed to become part of the IEA Civic Education Study. In 1997-2004, the Australian National Government funded the *Discovering Democracy* program to help to prepare students become effective and responsible citizens, learn about the government and law, and understand the country's democratic heritage. The funding provided curriculum resources for all schools, professional development, and other national activities to support the program. An evaluation of the program found mixed results. For example, some schools have taken full advantage of the program resulting in civic education becoming embedded in the democratic operation of the schools. Many schools, however, report competition between the program and other academic areas resulting in a token role for civic education in the curriculum. Currently, civic education is not a core subject in

Australia, and, as in the United States, its inclusion in the curriculum is primarily a decision made by local schools dealing with multiple educational demands.

In schools in the United States, civic education has had a similar trajectory as in Australia. The debate about the civic purpose of education has roots in the early years of the new republic when concerns about nationalism and the creation of a dominant culture were prevalent. Civic education during much of the 20<sup>th</sup> century focused, as in Australia, on what students should know and be able to do in the field of civics and government. Yet, throughout the 20<sup>th</sup> century, specific historical periods, such as the Great Depression of the 1930s and the Civil Rights Era of the 1960s, brought challenges to traditional civic learning and stressed a rethinking of freedom, rights, and democratic values, including the role of multicultural education in civics education.

Currently, civic learning in the United States, as it is in Australia, is primarily covered in social studies classes. More often than not, civic education is not a distinct separate subject of study due to limited teacher expertise and other competing factors. In the United States, forty-two states have statutes that address the acquisition of citizenship knowledge and skills (Education Commission for the States, 2008).

#### *Policy Threats to Educating for Civic Engagement*

Despite growing interest in civic engagement and the need for students to develop into politically aware and civically responsible citizens, some believe that educating for civic engagement in the United States is now threatened by a new wave of “high stakes” reforms to raise academic achievement, particularly in the lower grades and in schools that serve historically disadvantaged populations (Valli, Croninger, Chambliss, Graber, & Buese, 2008). These reforms, which hold schools accountable for achievement in a select

set of subjects, have encouraged what has been referred to as “narrowing of the curriculum.” This phenomenon means that core subject areas, such as reading and math, are given priority over other subject areas, including civic education. Curriculum material not tested is excluded by teachers and schools to maximize test scores on the material that is tested. At issue is the extent of change in curriculum and instructional time for both tested and non-tested subject areas with the emphasis placed on tested subjects, such as reading and math, at the expense of other subjects, including civic education, social studies, and history (Chudowsky & Chudowsky, 2005; McMurrer, 2006; Rentner, 2007).

At the same time, efforts are underway in Australia to establish a national curriculum (Office of the Prime Minister, 2008) that would include national standards and accountability for academic achievement. Holding Australian schools accountable for academic achievement is consistent with the accountability trends evident in the 2002 No Child Left Behind Act in the United States, though the details of the Australian framework are still being debated. It does appear, however, that civics and citizenship education may be included as a component of the national curriculum, along with English, mathematics, and science. Although civic education will be included in the national curriculum, accountability requirements and testing standards still raise concerns about the nature of citizenship education that will be provided by Australian schools (Kennedy, 2008). Specifically, given the pressure of annual standardized high-stakes tests, how will citizenship education conform to what is being tested on the test? Will the tests encourage critical thinking about civic-related issues, or will they encourage the memorization of more easily tested facts? Yet, opportunities for students to engage in meaningful civic learning, participate in open discussions about social and political issues, and extend their

learning beyond the school to address real community issues are critically important for the development of politically aware, actively informed, and civically engaged citizens.

In both Australia and the United States, education reforms have emerged with the potential to shape and reshape the education of young people for civic engagement.

Although few in the United States would argue with the need to improve achievement for all children, there is no indication either that the public wishes to terminate the schools' historic responsibility to prepare students to participate meaningfully in society. In the United States, the issue for some has become the extent to which high-stakes testing will accelerate a historical trend toward narrowing the curriculum in schools, including minimizing or even eliminating civic-related curriculum (Valli et al., 2008). In Australia, the issue is not the elimination of educating students for civic engagement. Rather, the issue concerns what is taught, how it is taught, and whether students have opportunities to engage in learning that supports a broad approach to civic learning and action. For both countries the question becomes how to enhance learning, not only in core subject areas but in areas such as civic education as well.

Addressing these educational issues requires transforming the perceptions of policymakers, practitioners, researchers, and the public in general about the possibilities for learning that exist in schools. Advancing the notion of the importance of normative structures and cultures in school to help shape civic outcomes is an alternative way to think about teaching and learning; it emphasizes not only the formal content of curriculum but the manner in which the school environment supports broad curricular goals and deeper forms of engagement with content. The empirical evidence in this study may lead to the creation of policies and practice that support positive forms of school

environment—that is, forms that promote multiple academic and civic goals. Embracing a broader approach to teaching and learning can also help students achieve their full potential as both individuals and citizens. The theoretical framework that best supports this type of teaching and learning is the socio-cultural perspective.

### *Summary*

In summary, the major purpose of the study is to examine the associations between various dimensions of positive civic communities of practice in school and three capacities that underlie civic engagement (civic knowledge, norms of democracy, and expectations for informed voting). Additional purposes of the investigation include considering the extent to which the various dimensions of communities of practice are related to more equitable civic outcomes, and how these associations vary in Australia compared to the United States. This study may provide some insights into the importance of local policies and practices consistent with promoting desirable civic outcomes in schools. It also expands the theoretical and empirical literature on the possible connections between communities of practice and the development of civic engagement. Data from the 1999 International Association for the Evaluation of Educational Achievement (IEA) Civic Education Study (Torney-Purta et al., 2001) is utilized to examine the associations.

### Conceptualizing Civic Engagement

One issue with research on civic engagement is the conceptualization and clarification of the term. Civic engagement can be understood as different civic competencies addressing both formal and informal civic practices. Formal civic practices are often the focus of explicit teaching and learning linked directly to the social studies



and history curriculum. For example, traditional civic education focuses on developing knowledge in areas such as government processes and structures, the political system, the nature and purposes of constitutions, and voting. These are common topics covered in government classes where learning is often based on recitation, worksheets, and pencil-and-paper tests; there is less of an emphasis on developing critical skills of deliberation, values about the rights of others, or beliefs about the efficacy of peaceful protest.

Much political science, sociological, and psychological research on democratic engagement has focused on the formal practices—involvement in conventional political activities such as voting, running for elected office, and working for political campaigns. This research has been valuable for understanding the political attitudes, knowledge, and engagement of individuals and group patterns in society. Meanwhile, the broader concepts and processes related to civic engagement, such as working with others to solve school and neighborhood problems, understanding people who have different ideas, participating in curriculum social movement activities, and developing the skills necessary to understand and address complex cultural issues have been largely ignored, at least by political scientists, yet these activities may reinforce the more traditional forms of engagement and provide for a broader appreciation of our collective well being.

There is a growing consensus that focusing only on the conventional civic activities is insufficient, especially when addressing the social and cognitive development of students' understanding of political, civic, and social responsibility. Rather, a wider range of civic skills, attitudes, and behaviors, as well as an array of informal civic practices, such as cultivating healthy normative structures in schools to support student civic development, are believed to be equally important. This has led to a broader

conceptualization of civic engagement that includes knowledge, skills, and beliefs associated with both political and nonpolitical participation. As a result, research is beginning to offer a more comprehensive view of relevant educational opportunities, one encompassing participation in organizations in the local community, volunteer activities connected with the school curriculum, and involvement in other extracurricular activities such as student councils and school newspapers (see for example, Flanagan, Syvertson, & Stout, 2006; Hahn, 2005; Kahne & Sporte, 2008; Keeter, Zukin, Andolina, & Jenkins, 2002; Lopez & Levine, 2006; Torney-Purta et al., 2001).

Although this expanded focus provides a richer interpretation of civic life, consensus about the specific political and nonpolitical activities which comprise civic engagement remains elusive. Levine (2007) lays out a compelling argument for a definition of civic engagement that encompasses citizens' efforts to address any "legitimate public matters," which include the necessary common goods and resources that protect or enhance society, the distribution of those goods and resources, and the laws and social norms that govern behavior among citizens. According to Levine (2007), deciding what are "legitimate public matters" is fundamental for determining which civic engagement skills, knowledge, values, and habits are important for citizens to possess. Although people appropriately disagree about that question, the debate, Levine argues, is essential to democracy. Levine continues by arguing that to qualify as civic engagement both the process and the outcomes of civic engagement should be legitimate and include, for example, deliberation, collaboration, peaceful civil disobedience, and contributions of service and monetary resources.

This study adopts an expansive conceptualization of civic engagement that highlights a range of civic competencies that students acquire through participation in the formal and informal curriculum of schools. These civic competencies not only include knowledge about political systems but critical skills to assess political and social claims; democratic dispositions that embrace the rights of disadvantaged populations, including the right to peaceful protest; and a commitment to participate in a range of collective activities, such as working with others to solve problems in schools and neighborhoods. Also considered part of this definition is Levine's (2007) argument about civic legitimacy. From this perspective, these valued civic competencies are best formed by legitimate civic processes that occur as part of a school's formal and informal curricular offerings.

The multi-dimensional aspects of the IEA Civic Education Study (Torney-Purta, et al., 2001) are consistent with the definition of civic engagement used in this study, and provide the basis for how this current study will approach the notion of civic engagement, though not to the full extent advocated by Levine (2007). The IEA Civic Education Study used a civic socialization model (see attachment A) which reflected a socio-cultural perspective that placed the student in the center of public discourse about goals and values with family, school, peers, and other formal and informal communities. In part, the model was based on the socio-cultural work of Lave and Wenger (1991) and Wenger (1998). Surrounding the face-to-face relationships reflected in the model are the influence of broader societal values and the effect of processes and institutions such as religion, political systems, education, economics, communication and the media. Social stratification by gender, ethnicity, language, and ethnic status are also incorporated into the model. Perhaps, most relevant for this current study, the IEA Civic Education Study

provides a comprehensive set of measures from which to construct the theoretical and statistical models that examine the relationship of communities of practice and civic capacities across nations. Measures used in this study, for example, include students' responses to whether they:

- Believe that positive change happens in school when students work together;
- Feel free to express their opinions in class even when their opinions differ from most other students;
- Learn to understand people with different ideas;
- Work with others to solve school and community problems.

(For a complete summary of the variables used in the study, please see Appendix B)

Consistent with Levine's (2007) call, this study offers a way to measure and interpret a range of civic skills, attitudes, and behaviors that support civic development and take shape by engaging in meaningful civic and social processes within and outside of schools. Although it does not capture the full range of Levine's definition of civic engagement, it does offer a broader conceptualization than that found in studies that focus exclusively on formal civic practices.

#### Theoretical Concepts

One of the challenges for this study is pulling together the appropriate strands of literature to create a theoretical framework that will adequately support the work. This study connects a specific set of concepts for this purpose, something that has not been undertaken by other researchers. Based on literature from education, psychology, sociology, and political science my conceptual framework unites two sets of concepts to

serve as the theoretical foundation of the study—communities of practice and school climate. Combining these two concepts in this study is justified in two ways. First, theoretical work has developed possible school climate measures that might be associated with civic outcomes, primarily using items from the IEA Civic Education Study (Homana, Barber & Torney-Purta, 2006). Second, as noted earlier, communities of practice are associated with the theoretical work underlying the IEA Civic Education Study. This study combines both constructs to investigate empirically the influence of communities of practice on the development of adolescent capacities for civic engagement.

### *Communities of Practice*

This study focuses on how communities of practice in schools are likely to influence the development of student civic engagement. The central framework for the study comes from the literature on communities of practice (Lave & Wenger, 1991; Wenger, 1998). Communities of practice can be seen as an extension of organizational theory as developed by Weick (1979), a social psychologist, to understand and describe how members of an organization interpret, respond, and react as they try to make sense out of the circumstances and events that affect their environment. Applied to school settings, communities of practice can reveal aspects of the social organization of groups, including the interactions of students and adults that affect the social and cognitive development of young people.

According to Wenger (1998), communities of practice consist of individuals who come together and continue to interact because they share a common goal, issue, problem, or concern. As a social theory of learning, communities of practice represent a broad conceptual framework that supports an understanding of schools as places where people

make meaning out of their lives and the world—that is, how people interact to sustain mutual agreement; define and form sustainable communities; and develop individual identities that reflect the social world and the specific norms of the communities in which they are a member. The communities of practice model has important implications for this study because it includes developmental opportunities that could be considered important to civic engagement such as exchanging ideas, views, and opinions; developing safe environments where members can interact; and participating in activities with others to address common concerns.

Central to the original conceptualization of communities of practice is the process of *legitimate peripheral participation*. For Lave and Wenger (1991), learning is an integral part of the generative social and cultural practices that create and sustain learning communities over time. In communities of practice, participation can be seen as legitimate in two ways. First, social acceptance in communities of practice recognizes that the individual is a member of the group. Second, established social norms in the community ensure behavior which supports the goals of the group. For the novice member, legitimacy is especially important as that member moves toward developing competence (e.g., attitudes, skills, behaviors, and knowledge) reflective of a community's norms. Newer members also initially engage at the periphery in safe, yet productive activities, as they gain an understanding of the social and organizing structures of the community. Legitimate peripheral participation can be seen as that part of the learning process through which individuals engage in and begin to understand the social and cultural practices of a community—e.g., common language, knowledge, and experiences. In this way, individuals identify, share, and develop a context for learning as a member of

the group. Legitimate peripheral participation is a transformational process through which newer members of a community move from being novices to becoming experts of the community. For schools this suggests that communities of practice can serve as places where students develop and practice the civic knowledge, abilities, and attitudes that transform them from novice to competent citizens who are prepared to address their civic responsibilities as adults.

Wenger (1998) also emphasizes the importance of boundary crossing, or the capacity of individuals to move from one community to another. Boundary crossing allows individuals to experience multiple communities which inform and influence both the individual's learning as well as the group's learning. Through boundary crossing individuals bring different understandings and experiences developed in different communities; these understandings and experiences may be complementary or require negotiation. As a result, boundary crossing requires individuals to develop coexisting identities of participation and non-participation which reflect how individuals and communities define and shape their relationship to and purpose in the surrounding world. For civic engagement in schools this reflects the level of students' engagement in issues that they care about, what information students seek to understand and choose to ignore, where students direct their energies, and how and with whom students seek to develop connections. Through boundary crossing in schools students develop a capacity to understand and participate in diverse settings, and the communities themselves have opportunities to develop practices required to address diversity and their relationship with other communities.

Wenger (1998) also argues that communities resist those experiences that do not fit within its framework of accepted competence. According to Wenger (1998), tension is critical in boundary crossing because tension maximizes learning—without tension learning becomes conformity. As such, communities of practice involve negotiation in the relations of power associated with the participatory social structures that exist among members. And, communities of practice embody a dynamic process and interplay between issues of acceptance, legitimacy, and trust. These aspects suggest that the extent that members feel connected to one another reflects the degree of inclusiveness in the community. For example, if the connections are too strong then there is potential for the community to become too insular and exclude new members or new ideas that can benefit its growth. If the connections are too loose the community risks members losing a sense of purpose toward accomplishment of their concerns and potential disintegration of the community. For civic engagement these issues reflect how people come together around civic concerns that are important to them, the ways they experience conflict or tensions, the manner in which they interact and accept each others' opinions and actions, and how they build the trust necessary to coexist as contributing members in their community of practice. It also suggests that communities of practice reflect different degrees of participation among its members.

Communities of practice have the potential to provide opportunities for embedded learning consistent with its central characteristics—acquisition of socially constructed meaningful learning, development of individual and group identity, and transition from peripheral to central forms of participation. As an exploratory study, this investigation can help to illuminate how these central characteristics may help to enhance students'



civic capacities. In communities of practice students participate in open discussions and dialogues that can foster the development of deeper and more sophisticated civic knowledge and action. Communities of practice may also facilitate a sense of belonging and membership built on acceptance, trust, and respect—even as others bring different experiences, ideas, and beliefs—that can transform individual and group identity while keeping civic learning dynamic. As such, communities of practice have the potential to serve as a powerful concept to support the development of students’ civic engagement in schools.

This study is guided by an understanding of communities of practice associated with positive normative structures and cultures that shape learning. At the same time, it is important to consider how schools may function as communities. Each school can be conceptualized as having two aspects associated with community—how much community exists and the quality of the community. For example, a school could have a high degree of community. In this school the members report high levels of cohesiveness, support, and positive relationships, all characteristics associated with strong collaborative community. This would seemingly appear healthy and vital for learning. If the school promoted the norms of respect, cultural awareness, and acceptance for all groups of people this school could serve as a model for civic engagement. At the same time, if the school advocated a narrow or even a negative view of equality, democracy, and human rights the scenario would be different. In this case, the school would exhibit a close-knit community around ideas and issues that not consistent with the goals of civic engagement for healthy society. To be a positive community of practice, at least for the purposes of this study, there must be a strong sense of community and the norms advocated by the

community must be supportive of democratic values and positive forms of civic engagement.

In reality, it is likely that schools have multiple communities of practice that exist across the school, within different classrooms for example, so it should not be surprising if students in the same school have different perceptions of community. Shared normative structures and cultures representative of a healthy democratic society can guide and unite these different communities of practice toward a common school civic mission, or, disparities in students' perceptions may represent very different experiences in schools and divergent communities. A refined notion of communities of practice in school can serve two purposes. First, it can help uncover the more nuanced role that communities of practice play in the development of student civic engagement. Second, it can serve to understand the function of norms and cultures within and across the communities of practice. From this perspective, it is important to ascertain both individual perceptions and collective perceptions in determining the role various communities of practices in promoting capacities for civic engagement.

#### *Refining Communities of Practice for Civic Engagement in Schools*

Torney-Purta, Homana and Barber (2006) have refined Lave and Wenger's (1991) and Wenger's (1998) conceptualization of communities of practice to include three distinct and positive dimensions of healthy school community for the purposes of understanding the development of student norms of civic engagement. These three dimensions are the *discourse community*, the *collaborative community*, and the *participatory community*. The *discourse community* involves the extent to which students engage other students and their teachers in recitation and discussion in the classroom. As

such, it can serve as a bridge for civic engagement because it can help facilitate common understandings and opportunities for dialogue leading to support for civic responsibility. The *collaborative community* is associated with developing the positive bonds necessary for students to enhance their relationships with others in school. This community of practice helps create a safe and cooperative environment where students can exchange perspectives, develop their ideas, learn to accept new ideas, and hear criticism that challenges their thinking or behavior. The *participatory community* involves developing and practicing the skills and behaviors necessary for citizenship in relationship to the school or institutions outside of school. In this community students join together to examine civic issues around which they engage in decision-making and participate in meaningful change. These three dimensions of communities of practice emphasize, at their core, quality learning experiences that are intended to positively foster students' transition from novice to civically competent individuals.

In each of the communities of practice student identity is marked by increased participation and acceptance of the characteristics defined by the community. At the same time, because each individual brings to the community his or her own unique experience and beliefs, each individual has the potential to influence and change the community's identity and how other members view and interact with the world. While Torney-Purta and colleagues' (2006) refined notions of communities of practice can enhance our understanding of the schools' role in the development of student civic engagement, challenges remain.

One challenge associated with multiple communities of practice is the issue of the relationship between the dimensions of communities of practice. The three dimensions of

community of practice in this study include a range of interwoven social practices that influence student civic engagement. As a result, the dimensions of communities of practice can have an overlapping connection with one another. Wenger (1998) points out that engagement across different communities of practice may be complementary, due to shared competence and understandings around issues, yet distinct, because members have different roles in different communities. Therefore, while shared social practice may occur in the different communities, the communities also have different effects on their members reflected through the different relationships between members within and across communities. In the civic discourse community, for example, students develop the knowledge and understandings relevant to civic issues. In the participatory community, however, where knowledge is translated into action, students may assume different roles based on their level of leadership within that community.

Critiques of constructs such as communities of practice from other theorists and educators provide an opportunity to understand the potential limitations of the construct and assumptions that can be made about the findings of the study. Bourdieu's (1997) work emphasized the role of social reproduction in perpetuation of social class across generations. He argued that the opportunities available to individuals in society are based on that individual's social class. He identified social, economic, and cultural capital as critical in this determination, noting "one has to take account of all the characteristics of social condition which are associated from earliest childhood with possession of high or low income and which tend to shape tastes adjusted to these conditions" (p. 177). Bourdieu further argued that formal schooling is a critical factor in this process—perpetuating what is learned, how it is learned, where it is learned, and with whom it is

learned. Portes (1998) and Portes and Landolt (2000) challenged the positive emphasis associated with constructs such as communities of practice at the exclusion of potentially more detrimental effects. The researchers also argued that although social networking-type opportunities may be available for some members of society, for others access to the benefits associated with these networks are limited because of the unequal distribution of wealth and other resources. In fact, Portes and Landolt (2000) suggest that four negative consequences can occur, “exclusion of outsiders, excessive claims on group members, restrictions on individual freedoms, and downward leveling of norms” (p. 532). The researchers note that the social opportunities that benefit some individuals may undermine its collective or civic benefits. For example, access to strong bonds associated with gang or clique membership provides benefits to those individuals belonging to these groups, but may occur at the expense of the common good.

Social reproduction arguments highlight challenges to the communities of practice framework. Schools don’t necessarily form inclusive communities. Rather, schools form communities with students from lower economic backgrounds and students from higher economic backgrounds. Socioeconomic background has implications for the schools that students attend, the learning opportunities within these schools, and a range of other benefits that may or not be available to students. Claims of potential benefits of communities of practice reflect the extent to which civic outcomes are provided equitably and inclusively to students from different family backgrounds. Therefore, the issue is not only who is included in communities of practice, but who benefits from them, and the differential effects they may have on the civic capacities of different groups of students.

This study will consider the influence of student socioeconomic background on students' capacities for civic engagement to help address these concerns.

Few studies have placed the association of communities of practice with civic engagement at the center of analysis, so there is limited literature from which to develop a research design or guide the interpretation of results. To address this issue, this investigation undertakes three approaches. First, the study utilizes Torney-Purta and colleagues' (2006) communities of practice framework to examine its association to civic learning and the instructional processes that promote this learning, especially the perceptions of students about the schools' discourse, collaborative, and participatory communities. Second, it clarifies how the dimensions of communities of practice fit within the overall socio-cultural organization of school considering the design of the IEA Civic Education Study. Third, it examines the possibility that each community of practice may diminish or exacerbate the potential relationship between students' family background and desirable civic outcomes. I next situate the notion of communities of practice within the larger context of school climate to establish and create a more robust framework for analysis.

### *School Climate*

For this study, the primary components for analysis are the different dimensions of communities of practice in school, conceptualized as the discourse, collaborative, and participatory communities of practice. The concept of communities of practice represents a more nuanced notion, consistent with a socio-cultural perspective, of how school climate influences civic engagement (Homana, Barber & Torney-Purta, 2006). In general, school climate reflects the overall learning environment where communities of practice

represent specific domains or dimensions of the overall learning environment. Each of these dimensions can be considered microcosms of the overall school reflecting varying levels and approaches to the contexts and processes related to teaching and learning. This study utilizes specific measures of students' perceptions of their school learning environment to more fully understand the role of communities of practice in promoting capacity for civic engagement.

A communities of practice framework is consistent, but not identical, with the web of ideas that has developed around school climate. Among researchers and theorists interested in school climate, conceptualization of school climate varies, and, arguably, the notion of school climate is neither fully understood nor agreed upon. In general, school climate is viewed from organizational, leadership, and socio-cultural orientations. In all three orientations, school climate affects the actions of individual members, how members interact with each other, the forces and resources which guide these interactions, and ultimately how learning occurs.

Distinctions exist across the various perspectives on climate. One orientation, the organizational perspective, assumes an operations management view of the school. According to Hoy and Feldman (1999), who are exemplars of this perspective, schools have three distinct levels of control—institutional (establishing legitimacy and support in the community), managerial (internal administration), and technical (teaching and learning processes). Each of these levels of control identifies an aspect of the school climate, including expectations regarding maintaining a sense of accountability (institutional), following routine organizational practices (managerial), or ensuring academic excellence (technical). The organizational climate view on schools emphasizes

the importance of conformity and focuses on maintaining the necessary structures and processes to ensure that school policies and practices remain intact when faced with pressure for change or disruption of accepted procedures from outside forces (DiMaggio & Powell, 1983; Malen & Knapp, 1997; March & Olsen, 1989; Meyer & Rowan, 1977). As a result, familiar and standard teaching and learning practices often become entrenched and opportunities for innovative pedagogy are limited. The different aspects of climate within the organizational perspective serve as a means to ensure forms of cooperation that enhance the school's existing operations.

School climate can also be approached from a leadership perspective. This administrative approach extends the view of climate beyond the procedural aspect of organizational management to focus on the role of particular leaders and their styles in addressing a range of school issues. The leadership orientation includes not only the organization of the school but also the ability of a school leader to motivate staff, to espouse and obtain specified performance levels, and to understand and manage the impact of financial and political forces such as budgets, school boards, superintendents, and parents. The leadership perspective about school climate has focused on the support and development of effective teachers, implementation of effective organizational processes, and the creation of distributive and balanced leadership (Davis, Darling-Hammond, LaPointe, & Meyerson, 2005; Spillane & Diamond, 2007; Spillane, Halverson, & Diamond, 2001; Marzano, Waters, & McNulty, 2003). However, collective leadership can be enhanced through opportunities that include students in the process, something that is rarely addressed in the leadership orientation. Youth leadership, in conjunction with adult leadership, can help to make schools not only more democratic



institutions but foster a greater sense of continuing responsibility among youth in their schools and neighborhoods.

The organizational and leadership orientations to school climate offer limited opportunities to examine how in groups, through social experiences, adults *and* youth learn. The organizational orientation focuses on the management structures of schools' operation leaving little, if no, attention for the complexities of human interaction, naturally occurring groups, and their relationship to learning. The leadership orientation, although more focused on people than the organizational perspective, emphasizes the role of a single school leader, most often the principal, and not necessarily teachers as leaders. There is even less focus on students and how they learn together to become leaders. A third perspective—the socio-cultural perspective—addresses many of these omissions.

The socio-cultural perspective is the most beneficial for understanding how climate may affect student learning. The socio-cultural orientation highlights how learning is embedded within social experiences shaped interactions with other people and the environment. Moos (1979), one of the earliest persons who developed this conceptualization, conceived of school climate as the social atmosphere—a setting or learning community in which students have different experiences depending on the routines, rules, and conventions established by the teachers and administrators. Moos divided social environment into three categories: relationship, personal growth or goal orientation, and system maintenance and system change. Others, such as Deal and Peterson (1999), have used the term school culture interchangeably with school climate. Deal and Peterson's (1999) concept suggest that culture, and therefore climate, develops over time and is tied to the rituals, taboos, and traditions of the school.

In spite of its extensive development as part of cultural psychology, the socio-cultural orientation to climate has played a limited role in investigations of how students develop civic knowledge, skills, and beliefs, particularly during the elementary and secondary school years. Recently, for example, school and classroom climate have been among the concepts central to the assessment in the IEA Civic Education Study. Yet, a full and nuanced consideration of how school climate contributes to the development of competent and capable citizens has not been attempted. Along with the creation of formal pathways for academic development, school and classroom climates can provide informal and potentially powerful mechanisms for enhancing students' civic development. A policy paper concluded that in this role, schools can help foster the knowledge, skills, and dispositions that young people need to develop into politically aware and socially responsible individuals (Torney-Purta & Vermeer Lopez, 2006). Building on that paper, Homana et al., (2006) conceptualized the connection between school climate and citizenship education as “the impressions, beliefs, and expectations held by members of the school community about their school as a learning environment, their associated behavior, and the symbols and institutions that represent the patterned expressions of the behavior” (p. 2). The exploratory work offered a conceptualization of school climate that is applicable to understanding the relationship between communities of practice and civic engagement advocated by Torney-Purta, Homana & Barber (2006). In other words, the dimensions of communities of practice can theoretically be aligned with specific measures of school climate. This study builds on this insight to more fully understand the potential role of communities of practice in schools for student civic development, something that has not been undertaken by other researchers.

As the next step in this work, I am using students' perceptions of the school climate to operationalize, or make useful for understanding, the association between more specific dimensions of communities of practice and measures of civic engagement. In other words, the dimensions of communities of practice are embedded within the broader or more global conceptualizations of school climate. In this study, for example, the discourse community of practice is operationalized by perceptions of the openness of discussions in classrooms (composed of student perceptions of opportunities to express their views, teachers support for this type of engagement, and whether other students' views are listened to and built upon through discussions and dialogues). I use these perceptions of climate, as well as those of the two other dimensions of communities of practice (collaborative and participatory communities), to examine their association with the three measures of civic capacities—civic knowledge, norms of democracy, and expectations for informed voting. This approach will provide a deeper understanding of the role and potential of communities of practice in shaping students' capacities for civic engagement.

To summarize, there is general agreement that school norms and practices influence the nature of learning in schools. These norms and practices have been conceptualized as school climate to explain certain outcomes and individual actions. This study is not an alternative conceptualization of school climate but rather builds on previous socio-cultural school climate work. I refine the notion of school climate as three positive dimensions of communities of practice in school—the discourse community of practice, the collaborative community of practice, and the participatory community of practice—all of which exist within the same school environment. Each, as conceptualized

in this study, promotes a healthy learning environment for civic engagement. Therefore, the notion of communities of practice is the central theoretical framework for the study. More importantly, the conceptualization of the three dimensions of communities of practice in schools, as described earlier, is the focal point of the analysis for examining how adolescents develop the capacity for civic engagement. I hypothesize that these dimensions are related to important civic outcomes—namely, students’ civic knowledge, norms of democracy, and expectations for informed voting.

#### Theoretical Approach: Model and Research Questions

A two-step process examines how three dimensions of communities of practice in schools help explain the three capacities for civic engagement. My initial goal is to examine the extent to which the dimensions of communities of practice vary between schools, and then to consider whether the dimensions of communities of practice are associated with other characteristics of schools—specifically, school composition and size. I then examine the explanatory power of communities of practice in terms of differences between schools in students’ average capacities for civic engagement and differences between schools in the importance of socioeconomic background in determining capacities for civic engagement.

The first step of the analysis considers the three dimensions of communities of practice as primary variables of interest. In this step, the dimensions of communities of practice are considered as dependent variables. I use student-level data to characterize each dimension. I then examine the extent to which schools still vary in students’ perceptions of these dimensions after controlling for the average socioeconomic background of students enrolled at school and school size. The second step of the process

considers the dimensions of communities of practice as independent variables that can explain differences between schools in the capacities for civic engagement manifested by students. Here the communities of practice serve as both individual perceptions and broader characteristics of a school's climate, and I use these dimensions to model student capacities for civic engagement and possible differences between schools in the influence of socioeconomic background on these civic outcomes.

Communities of practice predictor variables for the research questions include two item-response theory (IRT) scales measuring student perceptions of open classroom climate for discussion (discourse community at school) and confidence in the value of participation at school (participatory community at school). A third composite measure, developed by first exploring different configurations using factor analysis and then averaging the mean of three items selected from this analysis, measures student perceptions of collaboration and trust (collaborative community at school). For a summary of the variables used in this study, please see Appendix B. Measures of civic engagement, including civic knowledge, norms of democracy, and expectations for informed voting are used as dependent variables for research questions three through seven.

The theoretical model for the study is illustrated in Figures 1 and 2. The model provides a framework for understanding the research questions that guide this study. Figure 1 demonstrates the underlying assumption that there are differences between schools in the dimensions of communities of practice even after considering a school's demographic composition and size. Figure 2 examines directly the association between the dimensions of communities of practice and civic outcomes. Note that I expect to find

both direct and moderating effects of communities of practice—that is direct effects on civic outcomes and a moderating effect on the association between socioeconomic status and civic outcomes.

Seven research questions guide this study and reflect the relationships in Figures 1 and 2. These research questions primarily examine between school differences in the strength of communities of practice and how these communities influence both civic knowledge and civic attitudinal variables. I answer each research question first for schools in Australia, then for schools in the United States, and finally compare results across countries.

The research questions are addressed using the 1999 IEA Civic Education Study samples for the countries of Australia and the United States. Student level data from each of the two countries are used for the analysis. All research questions are addressed through hierarchical linear modeling (HLM) (Raudenbush & Bryk, 2002) to examine variation between schools in the measures of communities of practice, civic engagement, and student and school characteristics that may influence them. This analysis does not assume that all students experience the communities of practice similarly. Therefore, I consider how both individual and collective perceptions of these communities are related to positive civic outcomes. Student self-report responses from the IEA Civic Education Study serve as data for an analysis at the student and school levels. In addition, this analysis examines similarities and differences in the results for the proposed models between Australia and the United States.

Figure 1: Two-Level Model for Research Questions 1 – 2 (Communities of Practice Measures as Dependent Variables)

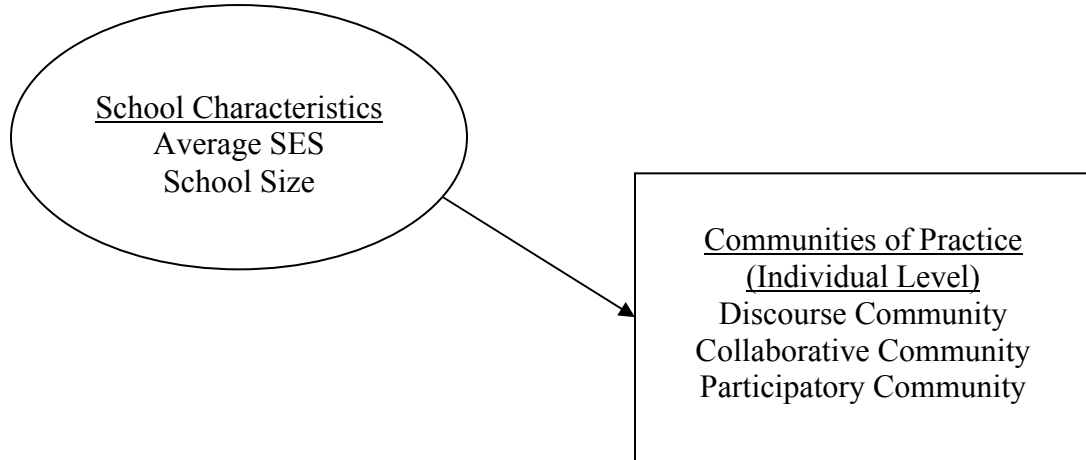
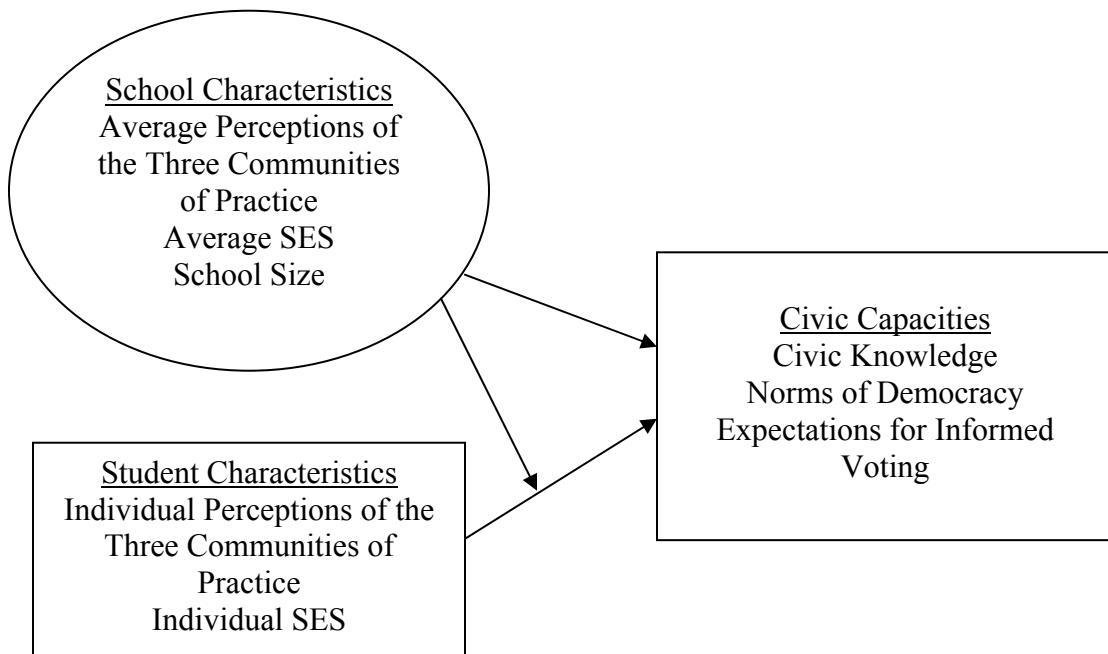


Figure 2: Two-Level Model for Research Questions 3 – 7 Communities of Practice Measures as Independent Variables)



## Research Questions

1. To what extent are there differences between schools in the three dimensions of communities of practice—discourse, collaborative, and participatory? To what extent are these dimensions of communities of practice stronger or more evident in some schools than others in Australia and the United States? To what extent is the variation greater in one country than the other?
2. To what extent are the dimensions of communities of practice associated with student composition and size in schools in Australia and the United States? To what extent is the association stronger in one country than the other?
3. To what extent are there differences between schools in the average student capacities for civic engagement? To what extent are there differences between schools in average civic knowledge, norms of democracy, and expectation for informed voting in Australia and the United States? To what extent is the variation greater in one country than the other?
4. To what extent are these capacities for civic engagement associated with students' individual perceptions of communities of practice and their socioeconomic background in Australia and the United States? To what extent are these associations stronger in one country than the other?
5. To what extent does the average difference between students from high and low socioeconomic backgrounds in their capacities for civic engagement vary between schools? To what extent is socioeconomic background less important



in determining students' capacities for civic engagement in some schools than in other schools in Australia and the United States? To what extent is the variation greater in one country than the other?

6. Does the extent to which the three dimensions of communities of practice are present in schools explain differences between schools in students' average capacities for civic engagement in Australia and the United States? To what extent is the association stronger in one country than the other?
7. Does the extent to which the three dimensions of communities of practice are present in schools explain differences between schools in the relationship between students of high and low socioeconomic backgrounds and their capacities for civic engagement in Australia and the United States? To what extent is the association stronger in one country than the other?

The first two research questions seek to demonstrate that the three dimensions of communities of practice can be considered characteristics of schools by treating them as dependent variables. The first question provides information about each dimension and the extent to which they vary between schools in Australia and the United States. The second question focuses on these differences and examines the extent to which the dimensions of communities of practice are stronger or more evident in specific types of schools. The answer to these questions will help to identify the extent to which these school-level factors may facilitate the development of desirable student outcomes. The third question provides information about the extent to which the three different civic outcomes vary between schools in Australia and the United States.

I then look more closely at student-level and school-level associations with each of the civic outcomes. The fourth question determines if student individual perceptions of communities of practice and their socioeconomic status are associated with student capacities for civic engagement within schools. The fifth question examines whether there is any evidence that the characteristics of schools might moderate the association between socioeconomic background and the three capacities for civic engagement. This question is important because it provides an empirical justification for examining whether specific characteristics of schools create the conditions for more equitable civic outcomes between individuals within schools. The sixth and seventh questions investigate whether the three dimensions of communities of practice are associated with capacities for civic engagement and the relationship between socioeconomic status and the three civic capacities. If communities of practice are found to play a role independent of other school characteristics, the analysis provides empirical support for understanding civic outcomes as a function of school policies and practices that support the creation of communities of practice in Australia and the United States. It is hoped that the answers to the research questions posed in this study will lead to a more robust understanding of the role of communities of practice in determining student capacities for civic engagement. For a more thorough discussion of this study's methodology, please see Chapter 3.

### Contributions of This Study

Understanding more about the role of communities of practice for student civic engagement can make a significant contribution to national and international civic education and school effectiveness research, policy, and practice. Examination of specific socio-cultural components of communities of practice can provide explanations about

how these components can be used to strengthen civic engagement, as well as uncover directions for future research. Deconstruction of the learning, social, and participatory processes that shape civic engagement can help educators, students, administrators, and other members of the school community create a school environment that embraces the civic mission of education, as well as the academic mission of strengthening learning. Enhancing policymakers' perspectives on communities of practice and civic education can provide new ways for them to understand what it means to educate students for civic engagement, the role of schools in this process, and the supports necessary to ensure students' active involvement in a democratic society. In this study, the concept of communities of practice represents a refinement of school climate and a socio-cultural perspective on learning.

## CHAPTER 2

### Review of the Literature

This study focuses on the association between dimensions of communities of practice and the capacities for civic engagement among adolescent students. It also considers the extent to which the various dimensions of communities of practice lead to more equitable civic outcomes, and how these associations vary in Australia compared to the United States. To accomplish these goals, this chapter examines relevant literature that can help to relate communities of practice to the development of students' capacities for civic engagement.

#### *Relating Communities of Practice to Civic Engagement*

Theoretical perspectives can help to outline and shape our thinking about civic engagement and the ways that it can be affected by different ideas and forces. At the same time, understanding the development of students' civic capacities in schools and the role of communities of practice in this process allows us to move from the theoretical to possible practical considerations. This chapter first explores the relevant research related to the civic capacities examined in this study and their importance for students' civic engagement. Next, research is reviewed which connects the dimensions of communities of practice to the civic capacities to demonstrate how they may be examined in schools. The work identifies research gaps and presents a rationale for how this study may serve to address these concerns.

#### *Capacities for Civic Engagement*

The three civic capacities in this study were selected because they represent different ways for individuals to understand and express their values and ideas on

important civic and social issues; interpret, evaluate, and critique civic processes and human rights for all people; and become informed and participatory actors in meaningful civic action and change fundamental to freedom and democracy. It is not my intention to present the civic capacities in isolation of one another. Rather, the civic capacities should be understood as intertwined—building and influencing one another. From this perspective, I am examining civic capacity in terms of different qualities and degrees of competence.

*Civic Knowledge.* One civic capacity that may be influenced by communities of practice is civic knowledge. Civic knowledge reflects basic civic literacy and is a cornerstone of civic engagement. When individuals possess civic literacy they are better prepared to understand and discuss public issues and critique policies and action plans. Researchers generally conclude that civic knowledge is a predictor of civic engagement (Delli Carpini & Keeter, 1996; Galston, 2001, Verba et al., 1995). Typically, however, civic knowledge has been narrowly construed as the acquisition of distinct facts related to political activities and events. As a result, studies have limited our understanding of the potential role of civic knowledge within a broader notion of civic engagement.

Some researchers, however, (see for example, Flanagan et al., 2006; Hahn, 1998; Homana, et al., 2006; Kahne & Westheimer, 2004; Kennedy & Mellor, 2006; Levine, 2007; Torney-Purta, 1990; 1992) have viewed civic knowledge more broadly as embedded within school and community contexts and intertwined with processes central to democratic practices. From this perspective, civic knowledge is a constellation of facts, skills, and social schema that facilitate civic engagement. As such, civic knowledge may be developed through activities that facilitate opportunities for students to construct new

ways of thinking and interacting with their peers. Torney-Purta (1995), for example, found that adolescent students involved in simulations where they negotiated international issues developed more complex understanding of those issues. Richardson (2003) found that among adolescent students in the United States opportunities for political discussion aided in students' construction of civic knowledge. In another study, Valentino and Sears (1998) found that students who discussed politics more often during a presidential election period had greater gains in civic knowledge, compared to students who discussed politics less often during this same period.

At the same time, in an Australian study of civic education and political knowledge among adults, McAllister (1998) analyzed survey data to determine whether political knowledge had an effect on how individuals not only viewed the political world but how they interact in it. He concluded that greater political knowledge increased political literacy and competence, both major components for support of democratic institutions, but only slightly increased political participation. And, in a longitudinal study, Krampen (2000) found civic knowledge a significant predictor of everyday political activities, such as reading political news and talking about politics. Civic knowledge, as portrayed in these studies, encouraged activities and competencies supportive of valued forms of civic engagement.

Research also suggests, however, that aspects of school structures may influence the extent to which engaging students in active learning activities can promote the development of these broader forms of civic knowledge. Campbell's (2006) analysis of adolescents in the United States found that the depth in which political and social issues are discussed had a greater impact on civic proficiency, such as knowledge, than

frequency or intensity. However, the racial diversity within schools also seemed to affect the effects of political discussion over and above opportunities for discussion and dialogue in the classroom. Campbell (2006) reported that although both black and white students appeared to benefit from meaningful political discussion, both groups of students also indicated that they were more likely to experience a positive classroom environment for discussion if their racial group represented the majority in the larger school population. And, each group was less likely to indicate this type of classroom environment when their racial group was in the minority. In other words, although opportunities for deeper discussions of civic issues promote positive forms of civic knowledge, the effects of these opportunities may be mediated by social structures that shape a school or classroom's learning environment.

Similarly, Torney-Purta, Barber, and Wilkenfeld (2006) found, on the individual level, positive and significant gains in civic knowledge for Latino and non-Latino students who engaged in discussion activities. At the same time, the researchers found that schools with fewer Latino students had higher civic knowledge scores than schools with more Latinos, characterized by a difference of 10 points. Closer examination revealed this difference in civic knowledge was reduced from 10 points to 4 points when taking into consideration other characteristics of schools, primarily average opportunities for discussion and average parent education. In other words, the extent that students have opportunities for discussion in their classrooms appears to make a significant difference in the development of civic knowledge. At the same time, broader social structures that influence a school's learning environment, such as racial and ethnic issues, may impede the effectiveness of these activities or even make such activities counter-productive for

certain populations of students. These impediments can affect how individual and different groups of students experience the various dimensions of communities of practice that may exist in schools.

It has only been recently that researchers have investigated the relationship between civic knowledge and a range of broader civic behaviors and attitudes, especially in schools. The question raised for this study is how the school environment fosters the development of civic knowledge, including critical skills that facilitate deeper understanding civic issues. It may be that communities of practice play an important role in this process. This study examines to what extent various dimensions of communities of practice contribute to the development of civic knowledge and how these associations vary in Australia compared to the United States.

*Norms of Democracy.* Central to understanding civic engagement is the assertion that it is supported by certain norms of democracy. In other words, the values conceptualized as important to maintain the continual health of a democratic society are meant to foster specific positive attitudes, actions, and emotions of the citizens who live in that society. Norms of democracy represent those attributes and processes that enable a particular vision of democratic society to flourish and endure, such as the right to freely express opinions and ideas, vote, and participate in peaceful protests; the availability of alternative forms of information from different and competing political perspectives; and the existence of multiple civic associations to which people can belong. Of importance for this study is learning more about the association between communities of practice and students' understanding of democratic norms in order to more fully understand how schools educate for civic engagement.



Within educational and political literature there has been extensive work on the theoretical concepts of democracy. Beetham (1994) focused on democratic indices related to citizenship and participation, basic freedoms within a democracy, and the recognition of social rights. Callan (1997) has advocated political education and liberal democracy through the contexts of autonomy, justice, community, patriotism, and the role of common schools. Held (1999) described various models of democracy such as republicanism, classical democracy, liberal democracy, and direct democracy. And, Gutman (1999) promoted a theory of education which identifies discussion and deliberation as an essential condition for the sustainability of democracy because it manifests mutual respect, cultural awareness, and tolerance.

More recently, Abowitz and Harnish (2006) identified seven theoretical perspectives relevant to the development of democratic norms: civic republican, liberal, reconstructionist, feminist, cultural, queer, and transnational. In most Western cultures the norms associated with maintaining a democratic society are primarily reflected by the dominance of the first two perspectives—civic republican and liberal. Left in the margins of influence are the remaining critical perspectives that challenge the dominant views. The existence of these alternative perspectives argues that rather than cloaking citizenship (and the norms that support it) in conventionally narrow discourse on what it means to be and act as a citizen, greater emphasis is required on the rights of difference, opportunities to challenge long established power structures and democratic institutions, as well as the necessity of social justice for all groups of people.

Schools enact or adopt certain perspectives about citizenship that subsequently influence the particular character of students' values, identity, membership in groups, and

their participation in civic activities (Enslin, 2000). From this perspective, the perspectives of citizenship, particularly those described by Abowitz and Harnish (2006) as dominant, mediate school policy and practice that in turn influence the attitudes, skills, and knowledge that students acquire toward civic life. Although it is outside the scope of this study to examine the influence of the various perspectives on how schools educate students for civic engagement, these perspectives help to shape similarities and differences between schools in how they understand democratic norms and valued forms of civic engagement. With this in mind, this section now turns to an examination of research exploring students' understanding of democratic concepts, and the relationship of these understandings to how these civic concepts may be developed within the context of schools.

Sigel and Hoskins (1981) interviewed 1,000 twelfth grade students in the United States and asked them to imagine explaining characteristics of democracy to students from a non-democratic country. The researchers found that individual freedoms and participation in elections emerged as key democratic concepts among these students. Similarly, Menezes and Campos's (1997) research with adolescent students in Portugal found freedom to be a significant concept associated with democracy and that it had a strong relationship with personal autonomy.

In a comparative study, Husfeldt and Nikolova (2003) found that upper secondary students viewed individual rights and opportunities as strengthening democracy. At the same time, these students believed abuse of political or economic power weakened democracy. They also found that students in Denmark and Sweden, countries with established democracies, had stronger perceptions of the role of democratic concepts

compared to those students in recently established democracies, such as the Russian Federation and Latvia. And, in a comparative study of adolescent students across six countries, Richardson and Torney-Purta (2008) found that an understanding of democratic principles was significantly related to perceptions of a good adult citizen, such as volunteering in the community or joining a political party.

In Australia, Kennedy and Mellor (2006) explored several concepts related to adolescent students' perceptions of diversity and tolerance. The researchers found that adolescent female students were more strongly supportive of rights for immigrants and women's political rights than were adolescent male students. Central to the research was the understanding that students' civic attitudes should be examined within the social context of learning. The researchers suggest that in addition to the structural features of democracy, educating for civic engagement must instill an understanding of democracy consistent with the rights of and equality for all people.

It also appears that the type of activities in which students engage may have an effect on the development of civic capacities. In a preliminary analysis of the United States section of the IEA Civic Education Study, Homana and Barber (2007) found that the use of interactive activities, such as role plays and mock trials, have different associations with different civic outcomes. While individual student involvement in interactive activities appears to increase civic knowledge, the same activities have an unanticipated negative association with students' conceptions of democracy. Students who engaged in interactive learning activities were less likely to describe traditional democratic concepts, such as political and social rights or the right to elect political leaders freely, as important characteristics of democracy.

Yet, at the aggregate school level, regardless of individual perceptions, students in schools that reported greater opportunities for interactive activities had both higher civic knowledge scores and more developed concepts of core democratic principles than those students who attended schools with fewer opportunities for interactive activities. These results indicate that the positive effects of interactive activities may depend on whether students experience them selectively, or whether they perceive the interactive activities to occur more broadly across the school—in other words they are perceived as a characteristic of the school. Or, the finding could reflect the quality of the experience, suggesting that students require better preparation and guidance and this is more likely to occur in schools where these practices occur more widely.

Finally, organizations such as The Constitutional Rights Foundation (2000) and the National Council for the Social Studies (2008) advocate learning through which students develop concepts of democracy that will increase their understanding of, commitment to, and participation in a democratic society. According to the Foundation (2000), these concepts affirm and support the quality of life necessary in a democratic society and include, for example, respect, cultural differences, differences in abilities and opinions, and commitment to equality, social justice, civil rights, and personal responsibility.

Embedding the norms of democracy into how we educate for civic engagement is important not only for a healthy democratic society but also for building an engaged and committed citizenry. The theoretical and empirical work reviewed suggests schools may play an essential role in this process. Investigating the relationship between students' understanding of democratic values and the school environment is central to this study.

Using communities of practice as a model for understanding student civic capacities can offer new ways to learn how these capacities may be fostered in schools. Simultaneously, examining democratic norms through the multiple lens of the discourse, collaborative, and participatory community can offer insight into both the commonalities and distinctions that may exist across the three types of communities.

*Voting and Related Political Activities.* To maintain a healthy democratic society, active political participation is essential. Yet, while research suggests that support for the democratic process remains strong across many countries (Klingeman, 1999), traditional forms of political participation such as voting, gathering information on the issues and candidates, signing petitions, and contacting political representatives appear to have declined, especially in industrialized nations (Dalton, 1999). This decline appears especially pervasive among youth. In the United States, for example, between 1972 and 2000 voter turnout among youth declined while turnout among older people remained relatively stable. More specifically, youth voter turnout declined by approximately 16 percentage points during this period (Center for Information and Research on Civic Learning and Engagement, 2008).

However, recent trends suggest an increase in voter turnout among youth in the United States. Between the 2000 election and the 2004 election youth turnout increased by seven percentage points, or approximately 16.4 million. And, this increase in youth turnout appears to have continued in the 2008 election. According to preliminary estimates, youth turnout increased about four or five percentage points, or about 22.8 – 23.1 million, in 2008 compared to 2004. This analysis suggests that since 2000, youth

voter turnout has increased from 41 percent to 52 percent, or at least 11 percentage points (Center for Information and Research on Civic Learning and Engagement, 2008).

In Australia voter turnout is consistently high. Since the general election in 1955 voter turnout has not been below 94 percent (Australian Bureau of Statistics, 2004). Among youth, Mellor, Kennedy, and Greenwood (2002) found that 86 percent of the adolescents surveyed in 1994 expected to vote. This is not surprising, however, since voting is compulsory in Australia. However, the researchers also found that 87 percent of the students did *not* plan on joining a political party, another 87 percent did *not* consider being a candidate for a government office and 76 percent had *no* plans to write letters to a newspaper about social or political concerns.

For many people, voting has become the single most important way to directly participate in democracy. By voting citizens can make their preferences known for candidates that they believe support their values, ideals, and beliefs on national and international issues. According to Richardson (2003), however, although youth in the United States indicated that they are interested in politics, sixty-one percent said they didn't vote because they lacked the information to make informed decisions about the issues and candidates. In addition, drawing on a survey of 271,000 freshman college students, Drew and Magnusson (2004) found only about 34 percent of the students reported the importance of being informed on political issues and candidates.

Schools can serve as important places to help cultivate a range of student civic attitudes and participation related to voting among youth. McAllister's (1998) Australian study suggested that civic education programs integrate civics into the school curriculum to secure youth political participation beyond simply voting. In fact, recent studies

confirm that thoughtful and respectful discussion of political issues in these types of programs not only lead to increased student expectations of voting as adults, but also increased community activism, political interest, and greater sense of connection to the issues and problems outside of school (Campbell, 2006; Hess, 2002; Liou, 2003; Kahne, Rodriguez, Smith, & Thiede, 2000).

A number of studies provide evidence of the impact of high school activity on future adult political participation. Several of these studies used a broad definition of high school activity combining many different types of involvement. Hanks (1981) surveyed students during their senior year in high school and again two years later to gather data on political participation. The researcher showed that high school participation had a direct effect on the discussion of political issues, campaign participation, and voting.

Glanville's (1999) study of extracurricular participation and political activity in early adulthood found a positive effect for participation in high school extracurricular activities (such as the school newspaper) and working for a campaign, attending political events, and monetary support for political campaigns when controlling for personality, adult voluntary organization membership, and voting behavior. Smith (1999) showed that extracurricular participation in the 12<sup>th</sup> grade significantly increased the likelihood of young adult political participation. Finally, Verba, Schlozman, and Brady (1995) conducted a study of student government participation's effects on later voting, working for political campaigns, protesting, and working for political boards. Their findings indicated that participation in high school government was predictive of later political involvement.

Involvement in curriculum-connected community service also appears to benefit students' political and civic engagement. In their study of more than 1,000 high school students, Billig, Root, and Jesse (2005) found that service-learning had a positive and direct relationship with how often students discussed politics, attended rallies, raised funds for a cause, or wrote letters to public officials. In addition, Torney-Purta, Amadeo, and Richardson (2007) found that high school and middle school students who engage in these types of curriculum-connected service experiences had increased expectations for voting, along with other civic related outcomes such as community participation. And, exploratory analysis suggests that students who participate in curriculum-connected community service had greater understanding of the importance of conventional civic and political participation such as voting in every election, joining a political party, or knowing about the country's history (Homana, 2007).

Recent political events suggest a renewed and welcomed enthusiasm for civic engagement and voting. While voting is viewed as an important form of civic participation other activities such as understanding the issues, working for a candidate or political party, writing letters to government officials or newspapers, and canvassing neighborhoods to convince people to vote are also part of civic participation. However, can the resurgence in youth voting and related civic activities be sustained? And, what role might communities of practice in schools play in this process?

Research on civic capacities suggests the importance of civic knowledge, norms of democracy, and voting as essential outcomes for students' civic engagement. At the same time, research examining the influence of socio-cultural school characteristics has only played a minor role in understanding the development of students' civic capacities.



And, more importantly for this study, the research has not investigated the association between the more nuanced notion of communities of practice and adolescents' civic capacities. This section now turns to the research that connects the three distinct communities of practice—the discourse community, the collaborative community, and the participatory community—and civic capacities to demonstrate why these associations are important to study.

### *Communities of Practice in School*

*The Discourse Community of Practice in School.* The discourse community of practice focuses on students as they do the cognitive work related to engaging in dialogues and discussions with other students and their teachers, initially in the classroom but also extending to other school activities (Torney-Purta et al., 2006). In the discourse community, students interact to sustain mutual agreement on common civic concerns. Meaningful civic learning can occur within the context of participation in a school's discourse communities.

Through group membership and participation, the discourse community of practice supports the development of meaningful civic knowledge relevant to action. Torney-Purta and Richardson (2003) identify several features necessary for meaningful civic learning: students' past understandings are made authentic by connections to current issues and concerns; students' construction of their own civic knowledge contributes to improved civic understanding; discussion and dialogue promote an open exchange of ideas where students listen and build on others' opinions. Westheimer and Kahne (2003, 2004) further suggest that meaningful civic learning includes developing skills to critique, analyze, and formulate action plans.

Instructional practice that moves beyond traditional teaching approaches, such as lecturing, is crucial in this process. Teaching strategies such as debates, deliberations, and simulations can encourage active construction of civic knowledge and increase students' deep inquiry and higher-order thinking on civic issues (Carnegie Corporation of New York & Center for Information and Research on Civic Learning, 2003; Conover, Searing, & Crewe, 2002; Hess, 2008; Kerr, Ireland, Lopes, Craig, & Cleaver, 2004; Torney-Purta, 2002; Vosniadou, 2001). Moreover, preliminary analysis of the IEA Civic Education data indicates that civic activities presented in a supportive, collaborative environment seem to lead to improved civic outcomes including increased knowledge, a sense of political efficacy, and the adoption of democratic norms (Homana & Barber, 2006).

Although there is not a solid body of causal evidence about the effects of instructional practice on student civic outcomes, existing research suggests that these practices deserve attention. Research on social studies classrooms in Chicago revealed lower-level student thinking; a thin and fragmented knowledge base; and few substantive opportunities to discuss democratic processes linked to civic problems (Kahne et al., 2000). In an earlier study of social studies classrooms in 106 middle and high schools, Nystrand, Gamoran, and Caronaro (1998) found that approximately 90 percent of the instruction involved no discussion about issues. Internationally, teacher-centered methods appeared dominant in civic-related classrooms in most countries (Torney-Purta et al., 2001), although there were also some opportunities for discussion of issues (Torney-Purta, 2002). Even though cognitive research advocates for deeper engagement with civic topics in classrooms where teachers utilize more constructivist techniques, it appears that most

teachers predominantly utilize traditional rather than more interactive and experiential methods.

At the same time, learning more about the influence of discussion and dialogue on students' civic capacities may require deeper investigation into whether students have these types of opportunities, how the learning experience is structured, and whether the experience produces the civic capacities that endure into adulthood. Hess and Avery (2008) offer a compelling analysis of controversial discussion issues and civic engagement related to these concerns. The researchers explored controversial discussion by examining teachers' perspectives and practice, students' experiences with discussion, and the effects on civic engagement. They argue that discussion has powerful effects on the development of civic capacities among students. At the same time, they suggest barriers often exist that limit the opportunities for discussing controversial issues in schools. Teachers, for example, may fear a backlash from the community if the discussion is too controversial, feel ill-prepared to use this type of pedagogy, or not have the necessary in-school support to conduct the work. Hess and Avery continue by offering a roadmap about how to learn more about discussion and ways to promote this form of pedagogy in classrooms. First, they advocate research that examines the links between the discussion of controversial issues and the development of students' civic capacities and how these capacities lead to civic engagement. They also suggest cross-national comparisons that investigate classroom and school contexts. And, they want to know more about the effects of issues discussions among diverse groups of students. For example, why do immigrant, minority, and lower economic status students have fewer opportunities to engage in these types of discussions than other groups of students?

Hess and Avery, along with other researchers (e.g. Laosa, 1989; Walsh, 1987; Homana, 2007), argue that disparities in civic knowledge may be reflective of differences in the pedagogical experiences of students based on immigrant or minority background. Early research suggests, for example, that youth from minority backgrounds may not perceive their schools to be as open and supportive as other students, which would likely help to shape their willingness to engage in controversial discussions and their attitudes about academic and civic support for youth who share their racial and ethnic heritage (Laosa, 1989; Walsh, 1987). More recent research found that civic outcomes and experiences among diverse groups of students remain a concern, especially regarding opportunities for open discussion, civic engagement, and classroom instruction (Homana, 2007; Campbell, 2006; Torney-Purta et al., 2006).

Finnan, Schnepel, and Anderson (2003) argue that learning can be powerful, especially when it is “authentic, interactive, learner centered, inclusive and continuous” (p. 392). However, their study of four separate schools implementing a school reform model emphasizing mutual respect, cultural diversity, authentic learning, cooperation, and empowerment found large differences in the implementation of the model by teachers at each of the schools. The study revealed the need for communication consistent with common learning and teaching expectations across the school community. The authors suggest that school and classroom environments are different entities. In other words, teachers perceive and implement teaching and learning practices differently throughout the school, so students may experience different discourse communities in different classrooms or when engaged in different activities. According to this study, even when teachers receive school-wide training that promotes specific civic outcomes,

some teachers may not incorporate the principles, values, and types of learning communities necessary for the development of civic knowledge.

Hess (2005) expands our understanding of teaching practice by identifying four distinct ways that teachers' political views influence their teaching of controversial issues. These include *denial* (teachers believe that the issue isn't controversial enough to be discussed in the classroom); *privilege* (teachers believe the issue is controversial but advocate their own perspective); *avoidance* (teachers believe the issue is controversial but their strong views about the issue prevents them from teaching in a neutral manner); and *balance* (teachers believe the issue is controversial but in reality the issue does not spark enough controversy to challenge students thinking).

At the same time, Hess and Posselt's (2002) study of 46 high students from two different social studies classrooms revealed several findings that require consideration concerning student participation in discussion about civic issues. The researchers found that although high school students had positive attitudes about classroom discussion they sometimes expressed a reluctance to engage in discussions about specific issues. In general, students preferred issues that they could identify with, such as juvenile crime. The depth of prior knowledge about an issue did not appear to have an influence on students interests in an issue, and researchers found that students often ended up liking an issue about which they initially knew very little. But peers strongly influence students' views of classroom discussion and their willingness to participate openly in discussions. Some students indicated that they were fearful that they would be judged negatively by their peers or that their popularity might be affected by their participation. The peer influence in this study also appeared to have a greater influence than that of the teacher.

This last finding suggests that students may perceive classroom discussion as an exposure of their identity which can make them reluctant to openly share their views and opinions with others.

Most importantly, all students require meaningful opportunities to develop their capacity for civic engagement and their sense of civic identity. According to Wenger (1998), meaningful learning is central to human identity. In the discourse community, the meaning constructed by the individual is shaped by and helps to shape the community in which students come together as a group to understand, interact, and make sense out of what they are learning and how it applies to their lives and the world around them. By participating in communities of practice, abstract concepts and ideas become meaningful understandings shared among the group members. In this sense, exploring ideas and formulating options for action with others in the group is an active social process. This process invites challenges to opinions from students who hold different ideas based on different experiences to help create opportunities for students to delve more deeply into the issues, develop the skills of negotiation, and tailor action that reflects common agreement.

Research has identified potential benefits to engaging students in meaningful and challenging learning experiences that appear to fit naturally with a strong discourse community of practice. Yet, the teaching practice underlying this type of learning is not the norm. This study seeks to provide insight into students' perceptions of the role of instructional practice and whether there are advantages in moving from narrow traditional instruction to broader innovative instruction for enhanced civic understanding and participation. An investigation of the discourse community of practice for civic

engagement may help researchers, policymakers, and teachers better understand the features of meaningful civic learning that can make the process more authentic for students. Relevant to this investigation of the discourse community is an examination of measures including students' perceptions of learning experiences and attitudes that foster open discussion and dialogue and their connection to the acquisition of desirable forms of capacity for civic engagement.

### *The Collaborative Community of Practice in School*

This dimension of community of practice emphasizes a safe and cooperative school environment based on trust, collaboration, and respect among its members. Underlying these demands are supportive relationships and positive perceptions of the school environment. Most literature in this area does not directly focus on civic engagement. Rather, various sociological and psychological studies have examined relationships among school community members and those members' attitudes, beliefs, and behaviors toward one another and toward school. Two areas of interest have implications for the collaborative community's role in educating for civic engagement—student-teacher and student-student relationships, and student perceptions of the school as a caring community.

Studies of student-teacher relationships have examined outcomes related to students' perceptions of teachers. These studies have been conducted with a variety of methodologies. Wentzel's (1997) study of early adolescents in a suburban middle school examined the relationship between students' perceived caring from teachers and students' pursuit of social responsibility goals and academic effort. She found that perceptions of caring teachers were related to both, even when controlling for previous motivation,

performance, and beliefs. Furthermore, students who felt valued and cared for by their teachers also held beliefs associated with positive developmental outcomes such as the importance of having high expectations, seeking opportunities for autonomous decision-making, and promoting democratic interaction styles. Similarly, Buckley, Storino, and Sebastiani's (2003) analysis of data from a district-wide school climate survey taken by seventh-grade students in a semi-rural school district found the perception of supportive teachers a significant factor that contributed to a positive school environment for both Latino and non-Latino students. These positive student-teacher relationships may be especially important but difficult to sustain when students transition into new school environments, such as movement from the sixth to the seventh grade (Eccles, Wigfield, Midgley, Reuman, MacIver, & Feldlaufer, 1993).

The research suggests a need to investigate the value of mutual support, respect, cooperation, and collaboration in educating for civic engagement. And, based on a study at the university level, there is evidence that students can develop the skills required to create these environments in secondary school classrooms. Gifford, Watt, Clark, and Koster (2005) engaged undergraduate students in collaborative work where they developed skills in awareness and negotiation related to issues of identity, power, and social control. Upon completion of their training, the students entered secondary school classrooms where they facilitated the development of learning environments reflecting open discourse and democratic participation. While tensions initially emerged between the undergraduate students and the classroom teachers, these tensions were defused and negotiated by the undergraduates in a creative manner. As a result, the undergraduate students were able to work with classroom teachers to create classroom environments



marked by mutual respect and increased pupil voice around social, ethnic, and cultural identity issues.

Peers and friends among adolescents may also have important influences on the nature of collaborative communities because of the role that these relationships play in the development of responsibility. Important distinctions exist between peers and friends. Peers are individuals approximately the same age thrust together into common environments, such as schools, where they can engage socially. Friendships are closer relationships based on common interests, reciprocal relationships, and sense personal allegiance built over time, though peer relationships can also develop into friendships. In her study of 475 sixth and seventh grade middle school students, Wentzel (1994) reported students' perceptions of academic support from peers was related to students' attitudes about sharing, helping each other, and keeping promises and commitments—all important traits for civic responsibility. In a different study, a two-year longitudinal study of 242 sixth and seventh grade students, Wentzel, Barry, and Caldwell (2004) found that student friendships have a strong influence on motivation. In fact, according to Wentzel (1998), values shared by friends may have an important role in motivating students to succeed in school.

In an Australian study, DeJaeghere and Tudball (2007) suggest that when adolescent students explore their own values, convictions, and beliefs through authentic learning with others, they may also enhance their attitudes and motivation toward civic engagement and citizenship. Other studies, conducted in Australia (see for example, DeJaeghere, 2002; Mellor, Kennedy, & Greenwood, 2001, 2002) suggest that the collaborative community can provide students an opportunity to engage in discussions

with both friends and peers where they can safely express their ideas and values to one another around civic and social issues, many of which involve the neighborhood in which the school is located. These studies all identify a potential overlap between the discourse community, described earlier, and the collaborative community. To the extent that students experience a school's environment as safe, respectful, and trusting, students are more likely to engage in discussions that require them to reveal personal beliefs and histories.

The Search Institute (2000) describes the school environment as central in the development of healthy attitudes and behaviors of students. The Institute's developmental asset framework organized 40 assets into two primary forms—external developmental assets and internal developmental assets. External assets included the categories of support, empowerment, boundaries and expectations, and constructive use of time. Among external developmental assets, a caring and encouraging school environment was listed as critical for student success. Internal developmental assets included commitment to learning, positive values, social competencies, and positive identity. The Institute argued that together, internal and external developmental assets, can serve to foster higher self-esteem, trusting and respectful relationships, and a sense of purpose and belonging among students.

The Search Institute (2003) also found an association between both external and internal developmental assets and a number of positive student outcomes, including learning. Based on a longitudinal study of 370 students between the sixth and eighth grades and the tenth and twelfth grades, access to developmental assets were associated with higher student learning, regardless of racial/ethnic or socioeconomic background. In

addition, students who experienced specific clusters of assets, such as school engagement, youth programs, and relationships with others, were three times more likely to have higher academic success than those students who did not experience those assets.

Although these studies did not directly examine the relationship of these assets with the development of civic capacities, they strongly suggest that specific aspects of school environments can promote both desirable academic outcomes and civic capacities.

Perceptions of a school as a caring community appear important for students and teachers across the K–12 educational spectrum. In their analysis of data from the National Educational Longitudinal study, Croninger and Lee (2001) found that providing support and guidance to adolescent students at risk of dropping out of school increased their tendency to graduate from school. In a smaller study of 233 students moving from the seventh to eighth grade, Ryan and Patrick (2001) found that teacher support and positive interaction was critical to student motivation and investment in school. At the elementary school level, a positive school environment fostered a range of outcomes including commitment to democratic values, positive student-teacher relationships, and cohesive and collaborative learning groups (Battistich, Solomon, & Delucchi, 1993; Solomon, Watson, Battistich, Schaps, & Delucchi, 1992).

Mutual trust appears to be a key characteristic of schools associated with a range of positive student developmental outcomes. Battistich, Solomon, Watson, and Schaps' (1997) examination of the effects of community in 24 elementary schools across six school districts in the United States found that mutual trust was positively associated with concern for others, acceptance of out groups, conflict resolution, social competence, efficacy, autonomy, and a sense of positive school community. Similarly, observational

data gathered from four elementary schools, where moderate to high percentages of students qualified for free or reduced-price lunches, revealed mutual trust as the most significant component in the creation of positive and caring learning environments (Finnan et al., 2003). Ryan and Patrick's (2001) study of middle school students found that perceptions of classroom environments promoting mutual trust were related to positive outcomes in motivation and engagement. These studies support earlier research that examined adolescent development in the middle grades, further affirming the value of creating a learning environment for adolescents based on mutual trust (Anderman & Maehr, 1994; Eccles et al., 1993; Goodenow, 1992).

In summary, social support and positive relationships among students and teachers may make a difference on a wide range of learning and behavioral outcomes including civic development. At the same time, ill-prepared or resistant teachers can create environments that are not conducive, and even detrimental, to building the mutual trust and respect necessary for increased student motivation and learning. A positive environment can be especially difficult to create in schools with high teacher turnover or in schools that serve low socioeconomic background neighborhoods.

A collaborative community of practice can help provide a strong foundation for developing the necessary civic dispositions of students and help them make positive judgments and commitment to a broader civic community. It may also be a vehicle to help teachers and other members of the school understand the importance of and increase their commitment to creating these types of collaborations across the schools. These types of collaborations can help to build a strong and positive school environment and foster both academic and civic learning outcomes.

A collaborative community can also foster belonging by helping to define, support, and enhance the full identity of its members and the group itself. As students and teachers engage in various collaborations, individual and group identity can undergo transformations that foster the development of ongoing and dynamic learning communities. Individuals learn to influence relationships and in turn are influenced by their relationships with others in these forms of community. Bonds can be formed that foster opportunities to sustain mutual agreement on common concerns.

Understanding the association between students' perceptions of trust and collaboration and their civic capacities is of central interest in this investigation of the collaborative community. As such, the study provides an opportunity to learn more about the importance of students' relationships with other school members and the ways that belonging to the collaborative community can help to facilitate a sense of membership for increased civic engagement.

#### *The Participatory Community of Practice in School*

The participatory community of practice emphasizes active involvement in experiences that provide distinct opportunities for students to engage in action and change. In this community students practice the skills and behaviors that are associated with the discourse and collaborative communities and transform them into addressing real problems in their schools and neighborhoods.

Research suggests that schools serve as important places to help cultivate student civic participation. A number of studies provide evidence of the positive association of participating in extra-curricular activities with civic outcomes such as running for office, voting, donating money to a campaign, writing letters to a newspaper, and working on

neighborhood problems (Beck & Jennings, 1982; Glanville, 1999; Hanks & Eckland, 1978; Siegel & Hoskins, 1981; Verba et al., 1995).

More recently, exploratory analyses of the IEA Civic Education data was conducted to investigate the relationship of adolescent student participation in extra-curricular activities in school and civic outcomes. Homana and Greene (2006) explored the association between measures of student government and voluntary organization participation, and expected adult political participation and trust. Involvement in student government and volunteer organizations was significantly associated with higher trust, expectations of informed voting behavior, and conventional political participation. In another analysis, Homana and Barber (2006) found that when students reported participating in more extra-curricular activities (for example, involvement in student government or working on the school newspaper) the schools scored higher on civic knowledge than those schools where students reported participating in fewer extra-curricular activities.

Schools may also facilitate opportunities for students to connect what they are learning in school to help solve neighborhood problems (Cleaver, Ireland, Kerr, & Lopes, 2004; Ireland, et al., 2006). Large scale quantitative studies and analyses (Melchior, 1999; Torney-Purta et al., 2007) found that high school and middle school students who engaged in curriculum-connected community service had increased expectations of voting; greater trust, efficacy, identity, prosocial attitudes, and tolerance; an increased belief that they can make a difference; and a greater commitment to service and civic responsibility. In their study of over 4,000 Chicago high school students, Kahne and Sporte (2008) found that participation in service-learning was a predictor of expected civic participation, such as intentions to help

solve community problems and positive attitudes of civic responsibility. In another study of more than 1,000 high school students in the United States, Billig and colleagues (2005) found that positive civic engagement across a variety of outcomes (such as valuing school, high levels of academic motivation, and high scores on civic knowledge and dispositions) was associated with service to the neighborhood. In addition, other studies on adolescents indicated a link between curriculum-connected community service and an increased sense of morality; a heightened understanding of how they can bring about social change; and greater involvement in neighborhood organizations later in life (Yates, 1999; Youniss & Yates, 1999; Youniss, McLellan, & Yates, 1997).<sup>3</sup>

In addition, service-learning has been found to encourage teachers and students to form partnerships that lead to a greater sense of school belonging (Billig & Conrad, 1997). These partnerships provided opportunities for dialogue and participatory engagement around complex cultural issues and problems among diverse groups of students (Melchior, 1999; Loesch-Griffin, Pertrides, & Pratt, 1995; Stephens, 1995).

At the same time, other research notes different findings regarding the association between service and civic engagement. In a review 37 studies on the relationship between service and civic engagement, Perry and Katula (2001) found insufficient evidence to support a connection between service participation and political learning and participation. Similarly, in their two-year evaluation of the AmeriCorp program, Simon and Wang (2002) found no change in participants' civic attitudes or social trust, that

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<sup>3</sup> Again, it is important to note that although this study examines both individual student and collective beliefs about these communities of practice, in this study, communities of practice are considered distinct from individual student learning experiences. For this investigation, the primary focus is on the collective nature of the school environment. The strength of communal nature of communities of practice for civic engagement are reflected by the pervasiveness of positive beliefs associated with these communities across the school, rather than just individual student's learning experiences.

participants did not become more confident in public institutions but rather developed a greater distrust of government and powerful officials, and that participation in service had little impact on beliefs regarding politics and society. These studies suggest that different types of service can lead to different civic outcomes. Furthermore, it seems that if curriculum-connected service is to become a viable option for civic and political participation, the programs would require design strategies that encourage youth to explore and develop these types of civic engagement skills.

Issues of power and authority in school can be detrimental to the types of positive experiences associated with the participatory community of practice intended to foster full democratic engagement (Levinson & Brantmeier, 2006). In practical terms, these issues can translate into dilemmas of how students learn to navigate and participate in an environment where teachers' or principals' authority is dominant and where apprentice-like experiences for cultivating youth voice, decision-making, and leadership are limited.

Therefore, youth voice is another important outcome related to the participatory community. Yet, youth voice and youth participation in school decision-making has been largely ignored in research. Including students as active participants so that they can express opinions that are respected and listened to, make decisions regarding school and neighborhood-related concerns, and experience the consequences of those decisions, can help develop civic leadership skills and improve schools as learning environments. Mitra (2004) suggests that active student participation in schools can lead to positive student outcomes. These opportunities can occur both within the classroom and school-wide. In her two-year qualitative study of two groups of eighth and ninth grade students participating in programs designed to develop youth voice among students in a low-



income high school, Mitra (2004) examined three youth development assets (agency, belonging, and competence). She concluded positive relationships existed between the assets and the ability to articulate opinions to others, construction of change-maker identities, improved interactions with teachers, greater attachment to school, and the ability to develop problem solving skills.

As was demonstrated for the two previous communities of practice, learning is not merely the development of competence but a reflective social practice associated with boundary crossing. And, although each community of practice can be understood as providing distinct developmental opportunities, boundary crossing fosters an interconnection among the different communities of practice. For example, in the participatory community, students work together to actively solve problems in their schools and neighborhoods. Yet, as in other the other communities of practice, the participatory community also involves member discussion and planning to solve common concerns. These social practices are critical in the negotiation of identity where students learn to interact in ways that involve revealing who they are as individuals—sharing personal experiences and ideas—that have the potential to transform the community and keep learning dynamic. As students work together to solve agreed upon problems a sense of group identity reflects the emergence of group membership and the ability of the students to coalesce around civic issues that may not have easy solutions but are important to them. These interactions can influence a group's identity, but also transform a member's individual identity. This process can lead to greater individual understanding of civic responsibility and stronger commitment to service and leadership.

This study seeks to provide insight into students' perceptions about engaging in learning opportunities that allow them to work together to examine and address real issues in their schools and their neighborhoods, and the association of these opportunities with the development of positive civic outcomes. Relevant to this investigation are findings that can help researchers, policymakers, administrators, and teachers understand the potential benefits of the participatory community, not only for active student civic involvement, but also enhancement of civic knowledge the values and norms that are the foundation of democratic life.

### *Context*

Through communities of practice learning occurs as a collective practice-oriented experience among individuals as they engage, inform, and influence each other through common activities. It is through this process that communities of practice can help develop the knowledge, skills, and dispositions embedded within the various contexts of everyday life (Rogoff, 1984; Torney-Purta, 2002). The influence of communities of practice on civic engagement occurs in both school and neighborhood contexts. For the purposes of this study, however, this influence is only considered in schools. However, even within the school, teaching and learning occurs across multiple contexts ranging from the intimacy of the classroom to broader school activities. Understanding the association between communities of practice and civic engagement will require consideration of learning and teaching within and between schools. This study will consider the influence of communities of practice on the development of students' civic capacities within and between these various contexts.

The three dimensions of community of practice in this study include a range of interwoven school processes that can influence student civic engagement. In the context of the classroom for example, teachers can create opportunities for meaningful civic learning through open and supportive student discussion on civic related issues. These group discussions allow students to listen to one another, build on others' views, and challenge their own thinking about civic issues. More broadly, school opportunities for collaboration and mutual decision-making can help to foster positive perceptions about the school as a caring and democratic learning environment. This study utilizes student survey information to understand how the discourse, collaborative, and participatory communities of practice in schools, both in Australia and the United States, influence adolescent civic development. However, it does not assume that all students experience these communities similarly, so this study also considers how both individual and collective perceptions of these communities are related to positive civic outcomes.

Understanding the socio-cultural nature of schools is closely linked with civic engagement and school context. In Australia, for example, Kennedy and Mellor (2006) identify three objectives aligned with the social and cultural context of schools—building social inclusion, cohesion and trust; developing respect for tolerance and diversity; and fostering problem solving and critical thinking skills. Recently, Dejaghere and Tudball (2007) conducted an examination of civics and citizenship education in Australia over the past fifteen years. They offer several suggestions relevant to school context.

Opportunities that challenge teachers existing perceptions about civic learning and promoting constructivist pedagogy is viewed as central. The researchers argue for professional development opportunities that expand teachers' civic knowledge and

change their attitudes about civic engagement. They also argue for civic-related curriculum that fosters respect, tolerance, cooperation, open mindedness, and civic and social responsibility among diverse groups of students. Kennedy (2008) supports Dejaghere and Tudball's (2007) notion of the broader civic engagement curriculum. He also identifies several concerns—reaching agreement on specific civic content, defining civic engagement content across school subjects while ensuring civic engagement also remains as a separate subject, and aligning what is taught with expectations of accountability and assessment—that may challenge progress towards these ends. Print (2008) also agrees for the need of a constructivist approach to civic teaching and learning in schools. In addition, he suggests consolidating the formal curriculum with informal learning (such as student volunteering and student councils) to create a comprehensive approach to civic learning and engagement.

Clearly, school context includes a shared understanding of the school's educational mission reflected by a broad range of school characteristics, educational philosophy, and policies. But other characteristics, such as the social backgrounds of school members or the size of an organization, may also influence the potential civic mission of a school. In this study, understanding the association between characteristics of schools and civic engagement is important because it can provide the information that policymakers need to make decisions that help to level the academic and civic playing fields across schools. In this study school size and average socioeconomic status (these variables are reviewed in chapter three) serve as a key school characteristic that may influence the effectiveness of communities of practice.

Research suggests that school size influences academic and civic outcomes of students. Baldi, Perie, Skidmore, Greenberg, and Hahn (2001), for example, found that students who attend schools that are particularly large or small have lower civic knowledge. Other research provides mixed results regarding the relationship between school size and service to the community. Theokas and Lerner (2006) found that schools that are both larger, and which have lower teacher-student ratios, are related to higher student service participation. Lay (2007), however, found that students who attend small schools were more likely to participate in service to the community compared to students who attended large schools. The inclusion of school size in this study serves as a control for the average perceptions of the three dimensions of communities of practice and as a possible moderator of the relationship between student socioeconomic status and student civic capacities.

Socioeconomic background influences opportunities for a range of student learning opportunities, including student civic engagement. For example, research has found that students from lower income families are less likely to debate and discuss current social problems in their classrooms, participate in service experiences, attend a school that has a student government, participate in political campaigns, and contact elected officials (Kahne & Middaugh, 2008; Condon, 2007; Verba et al., 1995). This study considers the influence of student socioeconomic background on the development of students' capacities for civic engagement. More specifically, I am interested in how communities of practice may moderate the association between socioeconomic background and the development of civic capacities.

A useful tool in determining these associations is the socioeconomic gradient. According to Willms (2006, 2003), the socioeconomic gradient represents the association between a social outcome and socioeconomic status for individuals in a specific community (in this case, schools). He describes the social outcome as any measurable trait—in this study the three civic capacities are the relevant outcomes of interest. The socioeconomic gradient is the slope that reflects the association between socioeconomic status and each measure of civic capacity. For the purposes of this study, I am interested in knowing whether the association between individual socioeconomic background and civic outcomes varies as a function of the three communities of practice, controlling for school size and school socioeconomic composition.

Consideration of context is also influenced by various assumptions and policies about the role and purpose of schools within different countries. Schools in one country, for example, may educate for civic engagement differently than another country, based on historical, political, cultural, and economic influences. Concerns about how youth are educated for civic engagement in both Australia and the United States existed at the time of the IEA Civic Education Study, and still exist today. This study examines how communities of practice influence the development of adolescent students' civic capacities, along with demographic and contextual variables, in both countries to contribute to our understanding of the role of schools in fostering civic engagement and possible goals for future research.

## CHAPTER 3

### Methodology

The purpose of this study is to investigate the relationship between dimensions of communities of practice and various modes of civic engagement. In addition, the study considers the extent to which these relationships are independent of school size and school composition, as well as whether the association between socioeconomic status and civic engagement varies as a function of the dimensions of communities of practice. To examine these associations, I use survey data collected by the International Association for the Evaluation of Educational Achievement (IEA) Civic Education Study of 1999 (Torney-Purta et al., 2001). The IEA Civic Education Study includes nationally representative samples of students and schools from twenty-eight countries. The countries display a range of similarities and differences in educational and political institutions. Australia and the United States were selected because they were two of the more comparable countries in the study. The analysis uses two-level hierarchical linear modeling (students nested within schools) to examine variation between schools in the measures of communities of practice, civic engagement (as measured by civic knowledge, norms of democracy, and expectations of informed voting), and student and school characteristics (student social economic background, school size, and school composition size) that may influence them. This dissertation focuses on seven research questions.

#### Research Questions

1. To what extent are there differences between schools in the three dimensions of communities of practice—discourse, collaborative, and participatory? To what extent are these dimensions of communities of practice stronger or more evident

in some schools than others in Australia and the United States? To what extent is the variation greater in one country than the other?

2. To what extent are the dimensions of communities of practice associated with student composition and size in schools in Australia and the United States? To what extent is the association stronger in one country than the other?
3. To what extent are there differences between schools in average student capacities for civic engagement? To what extent are there differences between schools in average civic knowledge, norms of democracy, and expectations for informed voting in Australia and the United States? To what extent is the variation greater in one country than the other?
4. To what extent are these capacities for civic engagement associated with students' individual perceptions of communities of practice and their socioeconomic background in Australia and the United States? To what extent are these associations stronger in one country than the other?
5. To what extent does the average difference between students from high and low socioeconomic backgrounds in their capacities for civic engagement vary between schools? To what extent is socioeconomic background less important in determining students' capacities for civic engagement in some schools than in other schools in Australia and the United States? To what extent is the variation greater in one country than the other?
6. Does the extent to which the three dimensions of communities of practice are



present in schools explain differences between schools in students' average capacities for civic engagement in Australia and the United States? To what extent is the association stronger in one country than the other?

7. Does the extent to which the three dimensions of communities of practice are present in schools explain differences between schools in the relationship between students of high and low socioeconomic background and their capacities for civic engagement in Australia and the United States? To what extent is the association stronger in one country than the other?

This chapter begins by identifying some of the challenges associated with conducting a secondary data analysis. I address both the limitations and possibilities of using data from the IEA Civic Education Study to answer the research questions. The chapter continues with an overview of the background of the IEA Civic Education Study, including why it was undertaken, sampling procedures, and instrument development. Next, I discuss the variables and measures used in the analysis. The chapter ends with presentation of the various statistical procedures used to answer each research question.

### Secondary Analysis of IEA Civic Education Data

Undertaking an analysis of the IEA Civic Education data requires identifying both its strengths and its limitations. This process allows the researcher to examine some of the issues, concerns, and potential pitfalls associated with the data for the intended study as well as the likely credibility of the results. This section begins by first identifying the limitations of the civic engagement and communities of practice research in general. It concludes with a discussion of the limitations and strengths of using the IEA Civic Education data to examine these phenomena.

One of the limitations of previous research on civic engagement is the fact that most research has been limited to samples that use a cross-sectional design. This type of design provides information about subjects at a single point in time as opposed to gathering information over an extended period time, such as months or even years. As a result, cross-sectional data, although efficient and useful, does not provide sufficient data to make causal statements about relationships. Another limitation of this research is that many surveys are based on samples of students from limited geographical areas. This means that the results have limited generalizability. A final limitation of the research on civic engagement and communities of practice is that the majority of these studies have been confined to samples within the United States with little consideration for international comparative analysis.

The IEA Civic Education Study also used a cross-sectional design. However, it remains the most in-depth, international examination of civic knowledge and engagement to date. It uses nationally representative samples of adolescents in twenty-eight countries to collect specific data about civic curricula, pedagogical practices, and student beliefs and experiences associated with civic outcomes. World-renowned experts across the participating countries collaborated to develop a comprehensive theoretical framework, high-quality survey instruments, and sampling design that permitted the generalization of findings within and across countries.

Although this current study is still limited by a cross-sectional design, it offers a unique approach to the data by examining how schools, specifically through the promotion of different dimensions of communities of practice, may influence the development of civic engagement among students. One of the objectives of the study is to

build on exploratory work (Homana, 2007; Homana & Barber, 2007; Torney-Purta, Homana, & Barber, 2006) to understand how communities of practice might be manifested or measured by socio-cultural characteristics of school. This approach offers an unprecedented opportunity to analyze the association between communities of practice and capacities for civic engagement, especially through an international perspective.

### IEA Civic Education Study Background

In the late 1980s and early 1990s many member countries of the IEA General Assembly experienced transformational changes in their government and societal structures. Civic culture and a sense of civic belonging, especially among youth, had notably been weakened in many emerging and established democracies. Securing and strengthening democratic processes and institutions became an interest for many IEA member countries. As a result, in 1994 the IEA General Assembly voted to conduct a two-phase international study on civic education among adolescents. The civic-building role of schools was seen as central to learning more about the civic knowledge, skills, and dispositions of adolescents. The goal of the study was “to identify and examine in a comparative framework the ways in which young people are prepared to undertake their role as citizens in democracies and societies aspiring to democracy” (Torney-Purta, Schwille, & Amadeo, 1999, p. 15).

The project designers approached the task of examining civic education using a common set of questions at two levels—the social or policy level and the individual level. In the first phase, the goal was to gather information regarding the content, processes, and circumstances of civic education. Case studies were developed by national research teams for twenty-four countries based on comprehensive reviews of existing civic education

research, educational curriculum, and findings from individual interviews and focus groups. This process allowed each country to frame and examine its own approach to understanding civic education, as well as the opportunity to learn and share the information with the other participating countries. The case studies were published in *Civic Education Across Countries: Twenty-four National Case Studies from the IEA Civic Education Project* (Torney-Purta et al., 1999). Upon review of the information in the case studies, the National Research Coordinators developed clusters of topic issues important across most of the countries. The topic issues were organized into three core international domains (each containing sub-domains) including: Domain I: Democracy – A) Democracy and its defining characteristics, B) Institutions and practices in democracy, and C) Citizenship – rights and duties; Domain II: National Identity, Regional and International Relationships – A) National identity, and B) International/regional relations; and Domain III – Social Cohesion and Diversity (this domain also included issues concerning discrimination). The National Research Coordinators used these three domains in the development of the Phase Two assessment instrument for the study. This second phase included a test of civic knowledge and skills, and a survey of student understanding of related concepts, participatory action, and attitudes, as well as demographic information. Questionnaires were also developed for both teachers (teacher questionnaire) and schools (principal questionnaire). The assessment instrument was translated into twenty-two languages and included detailed guidelines and translation notes to address country specific political and cultural contexts. To ensure quality control the instrument was piloted twice among a subset of the twenty-eight countries. In 1999, the final assessment instrument was administered to more than 90,000 fourteen year olds

in twenty-eight member countries, including Australia and the United States. A separate assessment instrument was also developed and administered to upper secondary students (ages 16-19) in sixteen of the countries. Neither Australia nor the United States participated in this part of the study.

The IEA Civic Education study was, in part, rooted within a socio-cultural theoretical framework (Lave and Wenger, 1991; Wenger, 1998). Through this framework the development of a range of adolescent civic capacities was viewed as “nested” within a specific civic socialization model (see attachment A). The model placed the student in the center of public discourse about goals and values with family, school, peers, and other formal and informal communities. Surrounding these face-to-face relationships are the broader influence of societal values and institutions such as religion, political systems, education, economics, and the media. The potential effects of social stratification by gender, ethnicity, language, and ethnic status are incorporated also into the model.

Several aspects of the approach are relevant for this current study. First, the “nested” context supports examination of the data through hierarchical linear modeling. Next, the socialization model reflects an understanding of learning as a process that develops from the periphery to the center. Third, the conceptual framework portrays civic competencies as influenced by a range of socio-cultural processes and structures that supports examining the association between communities of practice in schools and the development of adolescents’ civic capacity.

### Sampling Population

Sampling procedures for the 1999 Civic Education Study were established in 1998 in consultation with IEA sampling experts. The modal age of 14 was selected as the

target population for two reasons. First, for testing purposes, age 14 is the standard IEA population that has been used in prior research and this age was the target population of the 1971 IEA Civic Education Study (Torney, Oppenheim, & Farnen, 1975). Second, the National Research Coordinators noted that testing an older group of students would present substantial problems because of dropout rates.

A two-stage stratified cluster design for sampling was used in the IEA Civic Education study. At the first stage, schools were sampled using a probability proportional to size. At the second stage one intact classroom per school was selected from the target grade, the modal grade for 14-year-old students. In both Australia and the United States the ninth grade was the target grade. The selected classroom in all participating countries was not to be tracked by ability. In addition, where possible, the selected classroom was to have a civic education curricular emphasis. This was problematic, however, since many countries do not have specific civic-related courses but rather embed civic education into other subjects. Even in Australia and the United States, for example, students have an opportunity to learn about civic education by the ninth grade, but it is often not an independent subject. Rather, civic education, as in many countries, is embedded into social studies, geography, history, religion, commerce, government, and legal studies (Baldi et al., 2001; Hahn, 1999; Print, Kennedy, & Hughes, 1999; Schwille & Amadeo, 2002). In both Australia and the United States, a range of monitoring procedures was employed to ensure the integrity of the sampling process. In addition, a relative weighting procedure was developed according to IEA guidelines and applied to the data. This procedure addressed the disproportional selection probabilities resulting

from the two-stage stratified cluster design of the sample and ensured the representativeness of individual country and cross-country samples.

Administration of the assessment in Australia and the United States occurred at different times of the year due to seasonal variations in the start of the school year. In Australia, testing took place between September and November 1999, as it did in other southern hemisphere countries. In the United States, administration of the survey occurred in October 1999 to accommodate varying school starting dates across sampled districts in the country. In Australia, 3,331 students with an average age of 14.6 years in 142 schools participated in the survey. In the United States, 2,811 students with an average age of 14.7 years in 124 schools participated in the survey (Torney-Purta et al., 2001).

#### Instrument Development

The development of the test and survey for the 14 year-old students involved a multi-step process. The first step began with an extensive review of content guidelines, summaries of other documents from Phase One, and online conference messages on civic issues. Next, the National Research Coordinators submitted items, which corresponded with the content guidelines, to be entered into a database. This was followed by a review of the 1971 Civic Education Study instrument (Torney et al., 1975) and published research. Then, test and contents experts reviewed the items to ensure they corresponded to the content framework. Additional items were added to adequately address all the areas of interest. The process resulted in a database containing 140 items for the content knowledge and interpretative skills test. All of the items were reviewed for validity and administrative feasibility across the twenty-eight participating countries.

All items in Phase Two of the study were based on information from Phase One. These items reflected expectations on what civic knowledge and skills 14 year-old students across the countries should know, such as an understanding of basic democratic principles and the ability to distinguish between opinion statements and fact. Eighty items were distributed to the National Research Coordinators for pilot testing with convenience samples of 14-year-olds in 20 countries. The Coordinators met for a week-long meeting to discuss the items. The meeting resulted in the acceptance of 62 items, and the inclusion of six additional items, constructed to address gaps in the instrument's coverage. Between April and October 1998, a second pilot test was conducted in 25 countries. In a second meeting in November 1998, several items were determined statistically unacceptable by one fifth of the research coordinators and removed from the survey, in accordance with the IEA rules to promote fairness across the participating countries. At this meeting, the Coordinators agreed, by consensus, on 38 multiple-choice items assessing content knowledge and interpretative skills for the final test. Each of these 38 items contained one correct answer and three distracter choices. For most of these items, the discrimination indices were greater than 0.30.

In addition, item development and selection was undertaken to address several content area domains such as attitudes towards women's rights and current and expected student participation in political activities. Items used were from existing measures, some of which were used with adults but determined appropriate for adolescents. In 1998 the survey and knowledge instruments were pilot tested. The final survey included 62 attitude items, 52 concept items and 22 items related to student civic action. A Likert-type scale format was used to score the survey items. Responses for this format ranged



from 0 to 4, with 0 indicating “I don’t know.” Student demographic background and participation in organizations were also included in the final survey instrument. The complete survey instrument, including the teacher and school survey, along with various related publications and reports, are available on the IEA Civic Education Study website (<http://www.wam.umd.edu/~iea/>).

A number of scales designed to measure the underlying constructs utilized in the study were developed during the initial analyses of the IEA Civic Education Study data. Structural Equation Modeling, which included Confirmatory Factor Analyses, was conducted on data from both an international random sample of 200 students per country, and the national sub-samples. These procedures provided more reliable estimates for theoretical justification of the latent variables. In addition, item response theory (IRT) scaling methods with Rasch scores for both categorical and multiple-choice items were used in the development of the scales. These procedures ensured that the scales could be compared across the twenty-eight countries. The Rasch scores for the knowledge scale were established at a mean of 100, and a standard deviation of 20. The Rasch scores for the ten attitudinal scales from the survey were set at a mean of 10, and a standard deviation of 2.

### Variables and Measures

For this study, only a portion of the 150 survey and demographic questions included in the IEA Civic Education Study completed by the participants are analyzed. This section describes the variables and measures used in the dissertation. For a summary of the variables, including the specific items used in this study, please see Appendix B.

### *Communities of Practice*

The three dimensions of healthy and positive communities of practice for civic engagement are used as outcome variables for the first part of the analysis to examine the extent to which they vary between schools independent of school characteristics (school size and average student socioeconomic status). The second part of the analysis considers the dimensions of communities of practice as independent variables that may explain differences between schools in the average capacities for civic engagement manifested by students. Recall that the emphasis of this study is on the pervasiveness of the three dimensions of communities of practice across the school. And, although the study examines the independent influence of each dimension, it is not meant to imply that the dimensions are unrelated to each other.

*Discourse community of practice.* For this analysis the discourse community of practice is operationalized by a scale composed of six items to evaluate its association with the development of students' civic capacities. Students were asked questions regarding opportunities to engage in open and equal discourse about political and civic issues and whether their teachers supported and encouraged these types of activities. Items included in this scale include, for example, whether students "believe that they are encouraged to make up their own minds about issues" or "feel free to express opinions in class even when their opinions are different from most of the other students." For this study, the discourse community of practice measure is standardized with a mean = 0 and a standard deviation = 1. This scale (CCLIMMLE, Torney-Purta et al., 2001) is included in the original IEA Civic Education dataset. The items were scored using IRT scaling

methods. Reliabilities for the average discourse community scale are: Australia  $\alpha = 0.81$ ; United States  $\alpha = 0.82$ .

The premise underlying the role of discourse for meaningful civic learning is based on engaging students in open dialogues and discussions about civic issues that are important to them. Doing so provides students with an opportunity to enhance their knowledge and skills in civic deliberations, possibly helping students to come together as a group to understand, interact, and make sense out of what they are learning and how it applies to their lives and the world around them. In this way, students have opportunities to delve more deeply into the issues, develop the skills of negotiation, and tailor actions that help to shape both an individual's sense of self as a member of the group and the group's identity as a component of a broader civic society.

*Collaborative community of practice.* The collaborative community of practice emphasizes a safe and cooperative school environment based on trust, collaboration, and respect among its members. Underlying these demands are supportive relationships and positive perceptions of the school environment. A collaborative community can also foster belonging by helping to define, support, and enhance the full identity of its members and the group itself. As such, individual and group identity can undergo transformations that foster the development of ongoing and dynamic learning communities that may make a difference on a wide range of learning and behavioral outcomes including civic development. Items included in this scale include, for example, whether students believe that they learned to “understand people who have different ideas” or “co-operate in groups with other students.” For this study, the collaborative community of practice measure is standardized with a mean = 0 and a standard deviation

= 1. This measure was developed by first exploring different configurations using factor analysis and then averaging the mean of selected items. Reliabilities for the average collaborative community scale are: Australia  $\alpha = 0.71$ ; United States  $\alpha = 0.73$ .

A measure that captures students' perceptions of trust and collaboration and their relationship with civic capacity is of central interest in this investigation. For this study, a scale of three items operationalizes the construct of a collaborative civic community of practice. The items included in this scale reflect students' responses to questions about patterns of interactions in their classroom and schools, especially the willingness of students and teachers to work cooperatively. These beliefs and values are seen as fostering a collaborative community that can help to facilitate a sense of membership for increased civic engagement.

*Participatory community of practice.* Research suggests that schools serve as important places to help cultivate student civic participation. Active involvement in experiences where students join together can provide distinct opportunities for action and meaningful change. In the participatory community of practice students engage in decision-making, experience the consequences of those decisions, and learn how acting together can have more influence on addressing real problems than acting alone. This process of working together to solve agreed upon problems can foster positive group identity and membership, a greater attachment to school, and an increased commitment to civic responsibility.

For this analysis, the participatory community of practice is operationalized by a five item scale. These items reflect students' confidence in the value of working together to solve problems and to create meaningful change in their schools. Items included in this

scale include, for example, whether students believe that “lots of positive changes happen in this school when students work together” or “students acting together can have more influence on what happens in this school than students acting alone.” For this study, the participatory civic community of practice measure is standardized with a mean = 0 and a standard deviation = 1. This scale (CONFSMLE, Torney-Purta et al., 2001) is included in the original IEA Civic Education dataset. The items were scored using IRT scaling methods. Reliabilities for the average participatory community scale are: Australia  $\alpha = 0.76$ ; United States  $\alpha = 0.80$ .

### *Civic Capacities*

Three dimensions of civic capacity are a focus of this dissertation. The three civic capacities include civic knowledge, norms of democracy, and expectations for informed voting.

*Civic knowledge.* The measure of total civic knowledge (TOTCGMLE, Torney-Purta et al., 2001) used for this study is from the 38-item test portion of the IEA Civic Education Study instrument. The civic knowledge items were constructed using the three content domain areas established from Phase One of the study. There were two different types of items in this section of the instrument. The first type of item assessed content knowledge, determined according to the three core domains of civic education. The second type of item measured students’ skill at interpreting civic-related materials such as a political leaflet or cartoon. Items were scored using item-response theory (IRT). For this current study, the civic knowledge measure is standardized with a mean = 0 and a standard deviation = 1. The items were scored using IRT scaling methods. Reliabilities for the civic knowledge scale are: Australia  $\alpha = 0.90$ ; United States  $\alpha = 0.90$ .

*Norms of democracy.* The IEA Civic Education Study did not originally have a scale to measure normative understandings of democracy. However, eight individual items included in the IEA study have undergone confirmatory factor analysis to confirm the plausibility of creating such a scale (Hoskins, Villalba, Van Nijlen, & Barber, 2008). These items measure students' beliefs about such matters as peoples' rights to freely express opinions and elect officials, to participate in peaceful protest, and the appropriate role and ownership of newspapers in a democracy. For this study, the norms of democracy measure is standardized with a mean = 0 and a standard deviation = 1. The items were scored using IRT scaling methods. Reliabilities for the norms of democracy scale are: Australia  $\alpha = 0.71$ ; United States  $\alpha = 0.70$ .

*Expectations for informed voting.* Similar to norms of democracy, a scale measuring students' expectations to become an informed voter (Husfeldt, Barber, & Torney-Purta, 2005) was developed after the original set of scales was created by IEA. Through confirmatory factor analysis two items were determined appropriate for this scale. Students were asked when they were an adult whether they expect to "vote in a national election" and "get information about candidates before voting in an election." The items were scored using IRT scaling methods. For this study, the scale is standardized with a mean = 0 and a standard deviation = 1. Reliabilities for the civic knowledge scale are: Australia  $\alpha = 0.70$ ; United States  $\alpha = 0.79$ .

#### *Demographic and Contextual Variables*

As noted earlier, the literature has argued that the resources available through families and friends (Bourdieu, 1994; Portes and Landolt, 2000; Kahne & Middaugh, 2008), as well as the school size (Baldi et al., 2001; Lay, 2006; Theokas & Learner,

2006), present challenges for student learning opportunities. In this study, understanding the association between characteristics of schools and civic engagement is important because it can provide the information that schools and policymakers need to make decisions that help to level the academic and civic playing fields across schools. In this study school size and average socioeconomic status serve as a key school characteristic that may influence the effectiveness of communities of practice. More specifically, I am interested in how communities of practice may moderate the association between a student's socioeconomic background and the development of civic capacities controlling for school size and the average socioeconomic status of students.

*Socioeconomic background.* The IEA Civic Education Study does not include a direct measure of student socioeconomic status. However, a scale was developed to capture differences between homes in economic and education-related resources. This composite is derived from data on the average parental income and the number of books in a student's home. If a student's family consisted of only one parent, the socioeconomic status composite was based on the income for only one parent. This socioeconomic status composite is standardized with a mean = 0 and a standard deviation = 1.

*School composition.* For this study, school composition will be represented by the socioeconomic composition of the school. The socioeconomic composition of the school suggests certain advantages and disadvantages associated with available educational and community resources that affect teacher quality; norms of behaviors, attitudes, and expectations toward learning; opportunities for formal and informal teaching practices, and other conditions that may influence the development of students' academic and civic capacities.

The socioeconomic status composite described above is also aggregated to the school level based on the student sample. This variable is used for two purposes: (a) to examine whether the socioeconomic composition of schools is associated with the three communities of practice and (b) to examine whether the relationship between the three communities of practice and student civic capacities is independent of the socioeconomic composition of schools.

*School size.* One aspect of school organization that influences measures of school climate, such as the measures of communities of practice used in this study, is school size (Bryk & Driscoll, 1988; Bryk, Lee, & Holland, 1993). Research suggests smaller sized schools can strengthen interpersonal relationships; promote a greater sense of trust and school belonging; lower levels of alienation; foster more positive student self-concepts; and, depending on the size, lead to greater academic gains. At the same time, Lay (2007) found that while students in smaller-sized schools are more likely to participate in school activities, school size has little influence on the development of civic outcomes, such as knowledge and participation.

To investigate the association of school size and the development of students' civic capacities, this study utilizes a measure based on full-time student enrollment in school. Because not all schools reported full-time student enrollment, a series of other variables was used to impute values for schools with missing data (e.g., full-time enrollment in the 9<sup>th</sup> grade). Each proxy variable was correlated strongly with full-time student enrollment ( $r > .8$ ). For the few cases with missing data across all variables, the mean value for school size was used in the imputation. For the purpose of this study, the school size measure is standardized with a mean = 0 and a standard deviation = 1.



## Statistical Analyses

This research study is conducted using hierarchical linear modeling (HLM) to examine variation between schools in the three dimensions of communities of practice and their relationship to the measures of student civic engagement. The model recognizes the nested structure of the dataset (students nested within schools within countries) and the original IEA Civic Education cluster sampling design. The use of HLM permits the proper estimation of standard errors for nested data structures, the separation of variance components within and between schools, and an accurate estimation of the extent to which schools differ in the three measures of communities of practice and the three measures of civic engagement. Hierarchical linear modeling (HLM) also facilitates an examination of the possible distributive effects of the dimensions of communities of practice—that is, the extent to which the dimensions of communities of practice moderate the relationship between a student’s socioeconomic background and capacity for civic engagement. Although not modeled directly in HLM, this analysis examines similarities and differences in the results for the proposed models by comparing results for analyses conducted independently on Australian and United States samples.

A two-step process examines how three dimensions of communities of practice in schools may help to explain three dimensions of civic capacity. My initial goal is to examine the extent to which the dimensions of communities of practice vary between schools, and then to consider whether the dimensions of communities of practice are associated with other characteristics of schools—specifically, the school’s socioeconomic composition and size. In this step, the dimensions of communities of practice are considered dependent variables. In the second step, the communities of practice measures

are used as independent variables to predict students' capacities for civic engagement controlling for school composition and size. This step also considers whether students' socioeconomic background is related to the measures of civic engagement and whether the dimensions of communities of practice mediate the relationship. The following section describes the statistical models that are used to answer the research questions.

### *Statistical Models*

The HLM analysis begins with two-level fully unconditional models of each of the three civic capacities and each of the three dimensions of communities of practice. This model is the preliminary step in HLM analyses and consists of only the outcome variable with no independent variables. In each two-level model, one of the dimensions of communities of practice measures (discourse, collaborative, or participatory) and one of the civic capacity measures (civic knowledge, norms of democracy, or expectations for informed voting) serves as the outcome variable. These models provide estimates of the school mean and confidence interval for each civic capacity and each community of practice variable. The student- and school-level models that answer research questions one and three are identified below.

RQ 1: To what extent are there differences between schools in the three dimensions of communities of practice—discourse, collaborative, and participatory? To what extent are these dimensions of communities of practice stronger or more evident in some schools than others in Australia and the United States? To what extent is the variation greater in one country than the other?

RQ 3: To what extent are there differences between schools in average student capacities for civic engagement? To what extent are there differences between schools in average civic knowledge, norms of democracy, and expectations for informed voting in Australia and the United States? To what extent is the variation greater in one country than the other?

The level-1 or student-level equation models both the dimensions of communities of practice and students' civic outcomes as a function of the school mean score plus random error.

$$Y_{ij} = \beta_{0j} + r_{ij},$$

where

$Y_{ij}$  is the outcome score (i.e., either the value of the discourse community, collaborative community, or participatory community; or the value of civic knowledge, norms of democracy, or expectations for informed voting) of student  $i$  in school  $j$ ;

$\beta_{0j}$  is the mean outcome score of school  $j$ ; and

$r_{ij}$  is the random "student effect," the deviation of student  $i$ 's score from the school mean score. The student effect (or error) is assumed to be normally distributed with a mean of 0 and a variance of  $\sigma^2$ .

The level-2 or school-level equation models the school mean score on the outcome measure as a function of the grand mean plus random error:

$$\beta_{0j} = \gamma_{00} + u_{0j}$$

where

$\beta_{0j}$  is the mean outcome score of school j;

$\gamma_{00}$  is the grand mean score (i.e., either the average value of the discourse community, collaborative community, or participatory community; or either the average value of civic knowledge, norms of democracy, or expectations for informed voting); and

$u_{0j}$  is the random “school effect,” the deviation of school j’s mean score from the grand mean for all schools.

The combined model for the fully unconditional model is as follows:

$$Y_{ij} = \gamma_{00} + u_{0j} + r_{ij}$$

The two-level fully unconditional model partitions the variance in the dependent variable into a within group ( $\sigma^2$ ) and a between-group component ( $\tau_{00}^2$ ), testing whether the between group component is significantly different from zero. If the between group proportion is significantly different from zero, this indicates that a statistically significant proportion of variability in the dependent variable is a function of group membership (or, in the case of this study, a function of the school attended by students). From these components the intraclass correlation coefficient (ICC),  $\rho$ , is calculated to determine the

magnitude or proportion of variation in the outcome measures that is due to differences between schools using the following formula:

$$\rho = \tau_{00} / (\tau_{00} + \sigma^2)$$

where

$\rho$  is the intraclass correlation, or the proportion of the total variance that is between schools;

$\tau_{00}$  is the variance between schools; and

$\sigma^2$  is the variance within schools.

It is also appropriate to examine the estimate of the reliability for the unconditional models. The reliability of  $\beta_{0j}$  (e.g., the school average for civic knowledge) is based on the number of students within each school and the proportion of variance attributable to schools (i.e., the importance of school membership in determining an individual's value on the dependent variable). Higher reliability is preferred because it suggests that a larger amount of variation can be explained as a function of school characteristics given the number of students used to estimate  $\beta_{0j}$ . Lower reliability suggests that variation may be insufficient given the within school sample to be modeled as a function of school characteristics (Raudenbush and Bryk, 2002). In this study, the fully unconditional models provide information about each civic capacity and each dimension of community of practice and the extent to which they vary between schools in Australia and the United States. The models will also provide an indication of how well

the IEA Civic Education data will support the development of more complex models for each of communities of practice and civic capacity variables.

After partitioning the variance and determining if there are statistically significant differences between schools in the measures of civic capacities and dimensions of community of practice, the analysis proceeds to develop a set of more complex, conditional models. These next models examine possible individual- and school-level effects on the three dimensions of communities of practices and the three dimensions of civic engagement.

### *Conditional Models*

This study utilizes three types of conditional models: the means-as-outcomes model, the random-coefficients regression model, and the intercepts- and slopes-as-outcomes model. The means-as-outcomes model is used to answer research question two which explores whether student composition and size are associated with the dimensions of communities of practice. The second type of conditional model, the random-coefficients regression model, addresses research question four (whether the civic capacities are associated with students' individual perceptions of communities of practice and their socioeconomic background) and research question five (whether the characteristics of schools moderate the association between socioeconomic status and the civic capacities). The third type of conditional model, the intercepts- and slopes-as-outcomes model, is used to investigate research question six (whether the dimensions of communities of practice are associated with average capacities for civic engagement) and research question seven (whether the dimensions of communities of practice are associated with the average relationship between socioeconomic background and the

civic capacities). Each research question is presented below along with the respective statistical models used for the analysis.

RQ 2: To what extent are the dimensions of communities of practice associated with student composition and size of schools in Australia and the United States? To what extent is the association stronger in one country than the other?

The following is the means-as-outcomes model for research question two:

$$\beta_{0j} = \gamma_{00} + \gamma_{01} (\text{School Composition}) + \gamma_{02} (\text{School Size}) + u_{0j}$$

where

- $\beta_{0j}$  is the mean outcome score of school j;
- $\gamma_{00}$  is the grand mean score (i.e., average of each community of practice score);
- $\gamma_{01}$  is the corresponding level-2 coefficient for school composition indicating the direction and strength of association between the community of practice dimension and school composition;
- $\gamma_{02}$  is the corresponding level-2 coefficient for school size indicating the direction and strength of association between the community of practice and school size; and
- $u_{0j}$  is the random or “school effect,” the deviation of school j’s score from the grand mean for all schools.

Next, a within-school model (level-1) is constructed to examine relationships between each of the three civic capacities, individual student perceptions of the three communities of practice, and student-level socioeconomic status, with the student serving as the primary unit of analysis:

RQ 4: To what extent are these capacities for civic engagement associated with students' individual perceptions of communities of practice and their socioeconomic background in Australia and the United States? To what extent are these associations stronger in one country than the other?

The following random-coefficients regression model addresses research question four:

$$Y_{ij} = \beta_{0j} + \beta_{1j} (\text{Student Socioeconomic Status}) + \beta_{2j} (\text{Student Discourse Community}) + \beta_{3j} (\text{Student Collaborative Community}) + \beta_{4j} (\text{Student Participatory Community}) + r_{ij}$$

where

$Y_{ij}$  is the outcome measure score (i.e., civic knowledge, norms of democracy, or expectations for informed voting) of child  $i$  in school  $j$ ;

$\beta_{0j}$  is the intercept or mean outcome score for school  $j$ ;



- $\beta_{1j}$  is the corresponding Level-1 coefficient indicating the direction and strength of association between student's socioeconomic status and their civic capacity score;
- $\beta_{2j}$  is the corresponding level-1 coefficient indicating the direction and strength of association between student's individual perception of a school's discourse community and their civic capacity score;
- $\beta_{3j}$  is the corresponding level-1 coefficient indicating the direction and strength of association between student's individual perception of a school's collaborative community and their civic capacity score;
- $\beta_{4j}$  is the corresponding level-1 coefficient indicating the direction and strength of association between student's individual perception of a school's participatory community and their civic capacity score; and
- $r_{ij}$  is the random "student effect" indicating the deviation of the child's score from their predicted score, after accounting for the student-level predictors.

Next, the homogeneity of the level-1 socioeconomic status slope is tested to assess whether the effects of student's socioeconomic status on their capacities for civic engagement varies between schools and whether socioeconomic status is less important in some schools than others. If the relationship between socioeconomic status and the dimensions of civic engagement vary between schools, this variation can be modeled as a function of school characteristics, including the dimensions of communities of practice

RQ 5: To what extent does the average difference between students from high and low socioeconomic background in their capacities for civic engagement vary between schools? To what extent is socioeconomic background less important in determining students' capacities for civic engagement in some schools than in other schools in Australia and the United States? To what extent is the variation greater in one country than the other?

The same model used to answer research question four can be used to answer research question five, only the primary unit of analysis is schools. The level-2 model for the random-coefficients model specified above (excluding the fixed effects associated with student's individual perceptions of the three communities of practice,  $\gamma_{20}$ - $\gamma_{40}$ ) is:

$$Y_{ij} = \gamma_{00} + \gamma_{10} (\text{Student Socioeconomic Status}) + u_{0j} + u_{1j} (\text{Student Socioeconomic Status}) + r_{ij}$$

where

$Y_{ij}$  is the outcome measure score (i.e., civic knowledge, norms of democracy, or expectations for informed voting) of child i in school j;

$\gamma_{00}$  is the grand mean of the outcome measure;

$\gamma_{10}$  is the mean distributive effect of student socioeconomic status on student civic outcomes across schools;

$u_{0j}$  is the deviation of school j from the estimated intercept;

$u_{1j}$  is the deviation of school  $j$  from the estimated slope for student socioeconomic status; and

$r_{ij}$  is the random “student effect,” the deviation of student  $i$ ’s score from the predicted score, after accounting for student socioeconomic status and their perceptions of the three communities of practice.

If the variance of the student socioeconomic status coefficient ( $\gamma_{10}$ ) across schools is significant, it is set as a random coefficient in the specified models and its variation ( $u_{1j}$ ) is explored in relation to school-level predictor variables. However, if the variance of the  $\gamma_{10}$  coefficient is not significant, it is assumed to be a fixed effect for the final models and is not modeled in relation to school-level variables (i.e., no  $u_{1j}$  is included and no school-level predictor is included for the socioeconomic status variance component).

For the final two research questions, a fully-specified two-level model examines whether the three dimensions of communities of practice are associated with average capacities for civic engagement and the average relationship between socioeconomic background and the three civic capacities. At level-1, the random intercepts- and slopes-as-outcomes model is equivalent to the model specified for research question four (assuming a random effect for individual socioeconomic status).

RQ 6: Does the extent to which the three dimensions of communities of practice are present in schools explain differences between schools in students’ average

capacities for civic engagement in Australia and the United States? To what extent is the association stronger in one country than the other?

The following between-school equation (level-2) is used to address research question six (again, excluding the fixed effects associated with student's individual perceptions of the three communities of practice,  $\gamma_{20}$ - $\gamma_{40}$ ):

$$\beta_{0j} = \gamma_{00} + \gamma_{01} (\text{Discourse Community}) + \gamma_{02} (\text{Collaborative Community}) + \gamma_{03} (\text{Participatory Community}) + \gamma_{04} (\text{School Composition}) + \gamma_{05} (\text{School Size}) + u_{0j}$$

where

- $\beta_{0j}$  is the mean outcome score of school j;
- $\gamma_{00}$  is the grand mean score (i.e., average of each civic capacity score);
- $\gamma_{01-05}$  are the measures of the direction and strength of the associations between the school-level characteristics and the mean outcome; and
- $u_{0j}$  is the school-level random effect that indicates the deviation of the school level-1 coefficient from its predicted value based on the school-level model after accounting for the influence of the level-2 predictors.

RQ 7: Does the extent to which the three dimensions of communities of practice are present in schools explain differences between schools in the relationship between students of high and low socioeconomic status and their capacities for

civic engagement in Australia and the United States? To what extent is the association stronger in one country than the other?

The following between-school equation (level-2) addresses research question seven:

$$\beta_{1j} = \gamma_{10} + \gamma_{11} (\text{Discourse Community}) + \gamma_{12} (\text{Collaborative Community}) + \gamma_{13} (\text{Participatory Community}) + \gamma_{14} (\text{School Composition}) + \gamma_{15} (\text{School Size}) + u_{1j}$$

where

$\beta_{1j}$  is the mean effect of socioeconomic background in school  $j$ ;

$\gamma_{10}$  is the grand mean score (i.e., average of effect across schools);

$\gamma_{11-15}$  are the measures of the direction and strength of the associations between the school-level characteristics and the distributive effect of student socioeconomic background on each civic outcome across schools; and

$u_{1j}$  is the school-level random effect that indicates the deviation of the level-2 coefficient from its predicted value based on the school-level model after accounting for the influence of the level-2 predictors.

The fully conditional model for the study, therefore, is:

$$Y_{ij} = \gamma_{00} + \gamma_{01} (\text{Discourse Community}) + \gamma_{02} (\text{Collaborative Community}) + \gamma_{03} (\text{Participatory Community}) + \gamma_{04} (\text{School Composition}) + \gamma_{05} (\text{School Size}) + u_{ij}$$

$$\begin{aligned}
& \text{Size}) + \gamma_{10} (\text{Student Socioeconomic Status}) + \gamma_{11} (\text{Discourse Community}) \\
& + \gamma_{12} (\text{Collaborative Community}) + \gamma_{13} (\text{Participatory Community}) + \gamma_{14} \\
& (\text{School Composition}) + \gamma_{15} (\text{School Size}) + \gamma_{20} (\text{Discourse Community}) + \\
& \gamma_{30} (\text{Collaborative Community}) + \gamma_{40} (\text{Participatory Community}) + u_{0j} + u_{1j} \\
& (\text{Student Socioeconomic Status}) + r_{ij}
\end{aligned}$$

Table 1.1: *Summary of Procedures and Decisions for Multilevel Analysis*

Step	Procedure
1.	Create and run unconditional models for each community of practice measure to determine the proportion of variance associated with the within- and between-group components.
2.	Create and run means-as-outcomes analyses for each dimension of communities of practice at student level to determine association with student composition and school size.
3.	Create and run unconditional models for each capacity for civic engagement measure to determine the proportion of variance associated with the within- and between-group components.
4.	Create and run random coefficients models to determine the association between civic capacities and socioeconomic status and variation between schools in the association.
5.	Add all dimensions of communities of practice at level 1 and re-run random coefficients models <ol style="list-style-type: none"> <li>Analyze influence of communities of practice dimensions on civic capacity measures.</li> <li>Determine whether the socioeconomic status slope should be fixed or random.</li> </ol>
6.	Create and run fully conditional models to determine the extent to which average beliefs about the dimensions of communities of practice explain differences between schools in student's average civic capacities, and if they explain the differences between schools in the socioeconomic status slope. <ol style="list-style-type: none"> <li>Evaluate significance of variance components.</li> <li>Make final decisions about model specification.</li> </ol>
7.	Rerun fully conditional models with determination from step 6. <ol style="list-style-type: none"> <li>Evaluate for contextual effects.</li> </ol>

### *Summary*

The analysis uses two-level hierarchical linear modeling to examine variation between schools in the measures of communities of practice, civic engagement, and student and school characteristics that may influence them. The HLM two-level fully unconditional models in this dissertation serve as the initial steps of the study. Answering research questions one and three, these models provide estimates of the proportion of variance between schools in the three dimensions of communities of practice and the three civic capacities. In addition to determining whether there are statistically significant differences between schools in the measures, the fully conditional models also serve as indicators of support for further analysis using the more complex, conditional models. The next step examines the possible individual and school-level effects on the three dimensions of communities of practice and the three civic capacities. The means-as-outcomes model is used to answer whether there is an association between student composition and size and the dimensions of communities of practice (research question two). The random-coefficients regression model answers whether the civic capacities are associated with students' individual perceptions of the three communities of practice and their socioeconomic background (research question four) and whether the characteristics of schools might moderate the association between socioeconomic background and the civic capacities (research question five). The intercepts- and slopes-as-outcomes model answers whether the dimensions of communities of practice are associated with the average civic capacities (research question six) and whether the dimensions of communities of practice are associated with the average relationship between socioeconomic background and the civic capacities (research question seven). If

communities of practice are found to play a role independent of other school characteristics, the analysis provides empirical support for understanding civic outcomes as a function of school policies and practices that support the creation of specific dimensions of communities of practice in schools in Australia and the United States.



## CHAPTER 4

### Results

In this chapter I present the results of the statistical analyses undertaken to examine the relationship between student perceptions about the three dimensions of communities of practice and the measures of student civic engagement. The chapter begins with a presentation of descriptive data about the Australian and the United States samples. I also present initial bivariate analyses for major variables used in this study. Next, I provide the results from a series of hierarchical linear models (HLM) constructed to address the research questions below. The chapter concludes with an overview of the findings that are discussed more extensively in chapter 5. Recall that the measures of the dimensions of communities of practice are based on individual perceptions (student-level) and average student perceptions (school-level). To avoid redundancy, when possible, I simply refer to student-level and school-level characteristics.

1. To what extent are there differences between schools in the three dimensions of communities of practice—discourse, collaborative, and participatory? To what extent are these dimensions of communities of practice stronger or more evident in some schools than others in Australia and the United States? To what extent is the variation greater in one country than the other?
2. To what extent are the dimensions of communities of practice associated with student composition and size in schools in Australia and the United States? To what extent is the association stronger in one country than the other?
3. To what extent are there differences between schools in average student capacities

for civic engagement? To what extent are there differences between schools in average civic knowledge, norms of democracy, and expectations for informed voting in Australia and the United States? To what extent is the variation greater in one country than the other?

4. To what extent are these capacities for civic engagement associated with students' individual perceptions of communities of practice and their socioeconomic background in Australia and the United States? To what extent are these associations stronger in one country than the other?
5. To what extent does the average difference between students from high and low socioeconomic backgrounds in their capacities for civic engagement vary between schools? To what extent is socioeconomic background less important in determining students' capacities for civic engagement in some schools than in other schools in Australia and the United States? To what extent is the variation greater in one country than the other?
6. Does the extent to which the three dimensions of communities of practice are present in schools explain differences between schools in students' average capacities for civic engagement in Australia and the United States? To what extent is the association stronger in one country than the other?
7. Does the extent to which the three dimensions of communities of practice are present in schools explain differences between schools in the relationship between students of high and low socioeconomic backgrounds and their capacities for civic engagement in Australia and the United States? To what extent is the association stronger in one country than the other?

## Descriptive Analysis

As a preliminary step, I conducted univariate analyses to examine the descriptive characteristics of the items and scales. Discussion of these descriptive statistics, including a comparison of the analytic and full samples for Australia and the United States, is presented in this section. I also conducted a series of bivariate analyses of major measures to ensure that the analytical dataset used for the study would adequately address the research questions.

### *Analytic Sample*

The full Civic Education Study includes data for 3,331 students in 142 schools in Australia and 2,811 students in 124 schools in the United States. Due to missing data, my analytic samples use fewer student-level cases to explore the research questions. The lowest percent of missing data among all student-level variables was less than one percent for the total civic knowledge measure in both countries. The expectations for informed voting measure has the greatest percentage of missing data among all of the measures used in this study (12 percent in Australia, and approximately 10 percent in the United States). Eighty-three (83) percent of the cases in Australia and 85 percent of the cases in the United States have complete data for all variables.

Most of the measures used at the school level were aggregated from the student level. Specifically, these measures include the average school discourse community, school collaborative community, school participatory community, and school student socioeconomic status (SES). Depending on the purpose of the analysis, I standardized these measures using either IEA established standards for means and standard deviations

or more conventional standards for means and standard deviations expressed as z scores.<sup>4</sup> The school size variable at the school level was merged from the school dataset of the IEA Civic Education Study and estimated with a series of variables due to missing data. Two proxy variables (full-time student enrollment in the 9<sup>th</sup> grade and number of full-time teachers) were used to impute values for schools with missing data on full-time student enrollment. Each proxy variable was correlated strongly with full-time student enrollment ( $r > 0.80$ ) making these imputations reasonably reliable. For cases with missing data across all variables (approximately 18 percent for the Australian sample and 15 percent for the United States sample), the mean value for school size was used in the imputation of values for the final variable. I include a dummy-coded variable in all analyses to control for cases for which the mean was used as a substitute for missing values.

#### *Comparisons of Sample Characteristics*

I examined the consequences of restricting the analytic sample to only those cases with complete data on the variables of interest for this study. No formal statistical tests were performed, but the magnitude of mean differences provide some insights into the extent to which the analytic sample is similar to the full sample—that is, the sample before dropping cases with missing data on one or more variables. Estimates of mean differences between the full and analytic samples are presented in Tables 4.1 (for Australia) and 4.2 (for the United States). To facilitate gauging the magnitude of these differences, I present mean differences as a proportion of the international standard

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<sup>4</sup> As indicated in chapter 3, to ensure the scales could be compared across the twenty-eight countries, the IEA established civic knowledge at an international mean of 100, and a standard deviation of 20. The attitudinal scales in the survey were set at a mean of 10, and a standard deviation of 2.

deviation for student-level measures or as the pooled proportion of the standard deviation for school-level measures.

In each table, the analytic samples (the first set of three columns) include only students who had complete data for all of the student level measures. The full samples (the next set of three columns) depict the total number of student responses for each of the original measures. The descriptive statistics for each student-level and school-level variable is presented in the rows, beginning with the student-level variables. At the student level, missing responses for one or more of the variables of interest in Australia and the United States are 17 percent (574 cases) and 15 percent (415 cases), respectively.

Looking at the student-level variables within each country first, the weighted estimates for the analytic sample used in this study are similar to the weighted estimates for the full sample from the Civic Education Study. Based on the information in Tables 4.1 and 4.2, civic knowledge displays the largest difference between the analytic and full samples within each country. In Australia, the difference is 2.15 points (103.83-101.68) or approximately 0.11 standard deviations (SD) of the scale score for the full sample (2.15/20.31).<sup>5</sup> In the United States, the difference is 1.92 points (108.40-106.48) or approximately 0.09 SD. The differences in the remaining student-level variables between the analytic and full samples within each country are 0.06 SD or less.

The weighted estimates for the school-level variables display a somewhat different pattern in Tables 4.1 and 4.2, especially in the United States. Mean differences tend to be larger than the mean differences for the student-level variables (e.g., 0.10 SD and 0.28 SD for average collaborative community of practice in Australia and the United

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<sup>5</sup> Mean differences for all variables have been calculated using the means and standard deviations in the tables. I use the standard deviation for the full sample in these calculations.

Table 4.1: *Mean Differences Between the Analytic Sample and the Full Sample in Characteristics of Students and Schools in Australia*<sup>6</sup>

	Analytic sample			Full sample		
	N	Mean	SD	N	Mean	SD
<b><i>Civic capacities: student</i></b>						
Total civic knowledge	2,757	103.83	19.60	3,301	101.68	20.31
Norms of democracy	2,757	10.34	2.04	3,143	10.26	2.05
Expectations for voting	2,757	10.23	1.88	2,931	10.17	1.93
<b><i>Communities of practice: student</i></b>						
Discourse Community	2,757	10.17	2.07	3,026	10.11	2.12
Collaborative Community	2,757	10.03	1.93	3,055	9.95	2.00
Participatory Community	2,757	9.93	2.08	3,051	9.86	2.11
<b><i>Additional variable: student</i></b>						
Student SES	2,757	10.26	1.78	3,264	10.18	1.83
<b><i>Communities of practice: school</i></b>						
Average Discourse Community	142	10.14	0.80	142	10.11	0.74
Average Collaborative Community	142	10.02	0.59	142	9.96	0.58
Average Participatory Community	142	9.88	0.70	142	9.83	0.69
<b><i>Additional variables: school</i></b>						
Average Student SES	142	10.20	0.78	142	10.14	0.78
Full-time Student Enrollment	109	695.65	318.53	96	683.21	325.12
Full-time Teachers	104	50.35	23.51	103	50.54	23.49
Full-time Grade Enrollment	112	116.80	62.40	95	111.62	62.42

<sup>6</sup> *n* is unweighted; means and standard deviations are weighted. Average discourse community, average collaborative community, average participatory, and average student SES were aggregated from the student to school sample. Missing values for school size was estimated using teacher size and grade size or the mean of school size when missing these variables. Approximately 18% of cases used the mean for missing school size values.

Table 4.2: *Mean Differences Between the Analytic Sample and the Full Sample in Characteristics of Students and Schools in the United States*<sup>7</sup>

	Analytic sample			Full sample		
	N	Mean	SD	N	Mean	SD
<b><i>Civic capacities: student</i></b>						
Total Civic Knowledge	2,396	108.40	22.28	2,786	106.48	22.41
Norms of Democracy	2,396	10.39	2.07	2,737	10.33	2.06
Expectations for Voting	2,396	10.26	1.94	2,538	10.20	1.98
<b><i>Communities of practice: student</i></b>						
Discourse Community	2,396	10.57	2.22	2,553	10.51	2.24
Collaborative Community	2,396	10.11	1.95	2,625	10.06	2.00
Participatory Community	2,396	10.13	2.14	2,608	10.10	2.15
<b><i>Additional variable: student</i></b>						
Student SES	2,396	9.92	2.14	2,770	9.79	2.17
<b><i>Communities of practice: school</i></b>						
Average Discourse Community	124	10.55	0.86	124	10.79	1.17
Average Collaborative Community	124	10.04	0.87	124	10.23	0.67
Average Participatory Community	124	10.12	0.73	124	10.30	0.71
<b><i>Additional variables: school</i></b>						
Average Student SES	124	10.03	1.21	124	10.17	1.20
Full-time Student Enrollment	92	688.14	685.84	90	689.07	692.90
Full-time Teachers	92	42.29	35.61	91	44.70	35.62
Full-time Grade Enrollment	97	173.70	211.18	94	194.66	216.82

<sup>7</sup> *n* is unweighted; means and standard deviations are weighted. Average discourse community, average collaborative community, average participatory, and average student SES were aggregated from the student to school sample. Missing values for school size was estimated using teacher size and grade size or the mean of school size when missing these variables. Approximately 15 % of cases used the mean for missing school size values.

States, respectively), and in the United States the school means for the analytic sample are uniformly lower than the means for the full sample. Overall, the pattern of differences in Tables 4.1 and 4.2 indicate that the mean values for the student-level and school-level variables are generally higher for the analytic sample than for the full sample in Australia, but these differences are relatively small. In the United States, mean values for the student-level variables are higher for the analytic sample than the full sample while just the reverse is true of the school-level variables. Nonetheless, Tables 4.1 and 4.2 do not indicate major deviations from the intended national samples in either country, especially for student-level variables.<sup>8</sup>

Table 4.3 compares the analytic samples for Australia and the United States that I use in the analysis. The first set of three columns presents descriptive statistics for Australia and the second set of three columns presents descriptive statistics for the United States. The rows in the table present the descriptive statistics for each student-level and school-level variable, beginning with the student-level variables. Mean differences in estimates of student-level and school-level variables between the two countries were tested for statistical significance with *t* test procedures.

In both countries, student scores are higher on the three measures of civic capacity than student scores for the full IEA sample of twenty-eight countries (i.e., the mean values for all three measures are higher than the standardized mean values on the IEA scale scores); but of the two samples, student scores in the United States are somewhat higher than student scores in Australia. The largest difference is in the means for total

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<sup>8</sup> Cohen (1977) describes mean differences of 0.20 SD as small, and the largest mean difference displayed was 0.11 SD for the variable civic knowledge in Australia. Only the school-level variables in the United States exceed this value with the highest values being between 0.21 and 0.28 SD for the three dimensions of communities of practice.



Table 4.3: Mean Differences Between Analytic Samples in Characteristics of Students and Schools in Australia and the United States<sup>9</sup>

	Australia			United States		
	N	Mean	SD	N	Mean	SD
<b><i>Civic capacities: student</i></b>						
Total Civic Knowledge	2,757	103.83	19.60	2,396	108.40***	22.28
Norms of Democracy	2,757	10.34	2.04	2,396	10.39	2.07
Expectations for Voting	2,757	10.23	1.88	2,396	10.26	1.94
<b><i>Communities of practice: student</i></b>						
Discourse Community	2,757	10.17	2.07	2,396	10.57***	2.22
Collaborative Community	2,757	10.03	1.93	2,396	10.11	1.95
Participatory Community	2,757	9.93	2.08	2,396	10.13**	2.14
<b><i>Additional variable: student</i></b>						
Student SES	2,757	10.26***	1.78	2,396	9.92	2.14
<b><i>Communities of practice: school</i></b>						
Average Discourse Community	142	10.14	0.80	124	10.55*	0.86
Average Collaborative Community	142	10.02	0.59	124	10.04	0.87
Average Participatory Community	142	9.88	0.70	124	10.12	0.73
<b><i>Additional variables: school</i></b>						
Average Student SES	142	10.20	0.78	124	10.03	1.21
Full-time Student Enrollment	109	695.65	318.53	92	688.14	685.84
Full-time Teachers	104	50.35	23.51	92	42.29	35.61
Full-time Grade Enrollment	112	116.80	62.40	97	173.70**	211.18

† p < .10; \* p < .05; \*\* p < .01; \*\*\* p < .001

<sup>9</sup> n is unweighted; means and standard deviations are weighted. Average discourse community, average collaborative community, average participatory, and average student SES were aggregated from the student to school sample. Missing values for school size was estimated using teacher size and grade size or the mean of school size when missing these variables. Approximately 18% and 15% of cases used the mean for missing school size values in Australia and the United States, respectively.

civic knowledge—approximately 4.57 points (108.40-103.83) or 0.23 SD on the IEA standardized scale score (4.57/20).<sup>10</sup> This difference in student civic knowledge scores between the two countries is statistically significant ( $t(4827) = -7.77, p < .001$ ). The mean values for the other two measures of civic capacity are also higher in the United States, but these differences are small ranging from 0.03 SD for norms of democracy and 0.02 SD for expectations for informed voting. No statistically significant difference was found between the two countries on these two measures of civic capacity

Table 4.3 also indicates that the three communities of practice variables that are the focus of this study tend to be more evident in classrooms in the United States than Australia, at least as determined by student perceptions about teachers' pedagogical practices. Although students in both countries have mean values for discourse community that are higher than the IEA international average, the mean value for students in the United States is 0.20 SD higher than the average in Australia ( $[10.57-10.17]/2$ ), a statistically significant difference. ( $t(5151) = -6.67, p < .001$ ). Differences in the other two communities of practice variables are smaller, with students in the United States having mean values 0.10 SD higher for participatory community and 0.04 SD higher for collaborative community. Only the difference in the mean values for participatory community, however, is statistically significant ( $t(5151) = -3.42, p < .01$ ). The only student-level variable with a higher mean value in Australia ( $M = 10.26$ ) than in the United States ( $M = 9.92$ ) is the measure of SES ( $t(4687) = 6.09, p < .001$ ). The difference is equal to about 0.17 SD on the IEA scale score.

At the school level, differences are larger between the two countries for the discourse and participatory communities of practice measures. The mean values for all of

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<sup>10</sup> I use the international standard deviation for these calculations.

the dimensions of communities of practice are higher in the United States compared to Australia. The largest difference occurs in the discourse community of practice (0.50 SD), followed by the participatory community (0.34 SD) and the collaborative community (0.03 SD).<sup>11</sup> Of the three school-level variables, only the mean difference in the discourse community ( $t(264) = -2.17, p < .05$ ) is statistically significant between the two countries. Similar to the student level, average student SES is higher in Australia (10.19) than in the United States (10.03). However, average student SES in both countries is higher than the IEA international average. Students in Australia (695.65) also attend schools with higher overall student enrollments than students in the United States (688.14). However, students in the United States (173.70) attend schools with higher student grade enrollment than students in Australia (116.80). Only the difference in grade enrollment, however, is statistically significant ( $t(70) = -2.721, p < .01$ ) and equivalent to approximately 0.43 SD.<sup>12</sup>

The findings indicate, on average, students in schools in the United States have more positive perceptions of these three dimensions of communities of practice compared to students in schools in Australia. Interestingly, differences also occur between Australia and the United States on the other school variables. Australia has larger full-time student enrollment and full-time teachers indicating that on average schools are larger in Australia than they are in the United States. At the same time, the United States has larger full-time grade enrollment suggesting fewer grades in schools in the United States.

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<sup>11</sup> Because IEA did not standardize aggregate measures, I use the pooled variance across Australia and the United States to estimate the SD for the study sample. For example, the SD for average discourse community is  $[(0.80 \times 142) + (0.86 \times 124)]/266$  or 0.83. The mean difference, therefore, in the values for average discourse community in Australia and United States is equal to 0.50 SD or  $(10.55 - 10.14)/0.83$ .

<sup>12</sup> Grade enrollment is larger in the United States because, on average, the Australian schools in the sample have six grades compared to four grades for the schools in the United States sample.

In summary, students in Australia and the United States have higher levels of civic capacity than the international mean for the twenty-eight countries that participated in the survey. The measure of total civic knowledge exhibits the greatest difference among the three capacities for civic engagement between the two countries. On average, students in the United States have higher civic knowledge scores, compared to students in Australia, as well as slightly higher scores for norms of democracy and expectations for voting. Individual students in the United States also have more positive perceptions about the three dimensions of communities of practice than the international average; students in Australia have more positive perceptions about the discourse community but slightly lower perceptions about the other two communities of practice (the collaborative community and participatory community). At the school level, these differences in perceptions are much more pronounced, especially for the discourse community of practice and the participatory community of practice, with differences between schools in the United States and Australia of 0.50 SD and 0.34 SD. Students in the Australian sample come from a higher socioeconomic background while students from the United States come from a slightly lower socioeconomic background compared to the international mean. Finally, students in Australia attend schools with larger student enrollments than students in the United States.

#### *Bivariate Correlation Analyses*

Analyses of bivariate correlations for both the student-level and school-level measures were conducted for the Australian and United States analytic samples. These analyses provide an examination of the potential level of multicollinearity of the

measures used in the study and preliminary insights into the association between the measures of civic capacity and the measures of communities of practice.<sup>13</sup>

Tables 4.4 and 4.5 present the bivariate correlations for variables measured at the student level for Australia and the United States. The numbers in the columns correspond to the numbered variables in the rows. At the student level, all measures have positive and statistically significant correlations for both countries. The correlation coefficients for the three measures of civic capacity with the dimensions of communities of practice in Australia range from 0.10 for civic knowledge with the collaborative community of practice to 0.32 for expectations for informed voting with both the collaborative community and the participatory community (see Table 4.4, rows 4-6, columns 1-3). The correlation coefficients for the dimensions of communities of practice in Australia range from 0.27 for the participatory community with the discourse community to 0.50 for the participatory community with the collaborative community (rows 4-66, columns 4-5). The correlation coefficients for SES range from 0.06 with both the collaborative community and participatory community to 0.30 with civic knowledge (row 7, columns 1-6).

In the United States, the correlation for civic capacities with the dimensions of communities of practice at the student level range from 0.12 for civic knowledge with the collaborative community to 0.35 for expectations for informed voting with collaborative community (see Table 4.5, rows 4-6, columns 1-3). The correlation coefficients for the dimensions of communities of practice range from 0.32 for the relationship between the discourse community and participatory community to 0.55 for the relationship between

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<sup>13</sup> The correlation estimates for the measures in Australia and the United States displayed in Tables 4-7 are weighted.

Table 4.4: *Student-Level Correlations for Australian Sample*

	1	2	3	4	5	6	7
1. Civic knowledge	1						
2. Norms of democracy	0.51**	1					
3. Expectations for informed voting	0.35**	0.27**	1				
4. Discourse community of practice	0.16**	0.14**	0.30**	1			
5. Collaborative community of practice	0.10**	0.13**	0.32**	0.35**	1		
6. Participatory community of practice	0.13**	0.18**	0.32**	0.27**	0.50**	1	
7. Socioeconomic status (SES)	0.30**	0.18**	0.19**	0.11**	0.06**	0.06**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

NOTES: Estimates are based on a sample of 2,757 students in 142 schools.

Table 4.5: *Student-Level Correlations for United States Sample*

	1	2	3	4	5	6	7
1. Civic knowledge	1						
2. Norms of democracy	0.52**	1					
3. Expectations for informed voting	0.36**	0.30**	1				
4. Discourse community of practice	0.19**	0.20**	0.31**	1			
5. Collaborative community of practice	0.12**	0.18**	0.35**	0.38**	1		
6. Participatory community of practice	0.14**	0.22**	0.34**	0.32**	0.55**	1	
7. Socioeconomic status (SES)	0.40**	0.24**	0.28**	0.13**	0.09**	0.11**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

NOTES: Estimates are based on a sample of 2,396 students in 124 schools.

the participatory community and the collaborative community (rows 4-6, columns 4-5). The correlation coefficients for SES range from 0.09 with collaborative community to 0.40 with total civic knowledge (row 7, columns 1-6).

Tables 4.6 and 4.7 present the bivariate correlations for variables measured at the school level for Australia and the United States. Again, the numbers in the columns correspond to the numbered variables in the rows.

At the school level, most correlation coefficients are positive and statistically significant for both countries. Exceptions occur for the variables average student SES and school size. In Australia, the correlation coefficients for average school civic capacities with the average school dimensions of communities of practice range from 0.20 for norms of democracy to 0.63 for expectations for informed voting, each with collaborative community of practice in Australia (see Table 4.6, rows 4-6, columns 1-3). The correlation coefficients for average school dimensions of communities of practice range from 0.39 for the discourse community to 0.69 for the collaborative community, each with the participatory community (rows 4-6, columns 4-5). Average SES ranges from 0.15 with the participatory community to 0.58 with civic knowledge, though the coefficient for average SES and participatory community was non-significant (row 7, columns 1-6). The correlation coefficients for school size are statistically significant only for civic knowledge and norms of democracy. The correlation with average total civic knowledge is 0.17 and the correlation with norms of democracy is 0.18 (row 8, columns 1-7).

In the United States, the correlation coefficients for civic capacities with the dimensions of communities of practice at the school level range from 0.16 for norms of



Table 4.6: *School-Level Correlations for Australian Sample*

	1	2	3	4	5	6	7	8
1. Average civic knowledge	1							
2. Average norms of democracy	0.70**	1						
3. Average expectations for informed voting	0.66**	0.53**	1					
4. Average discourse community of practice	0.30**	0.25**	0.42**	1				
5. Average collaborative community of practice	0.32**	0.20**	0.63**	0.57**	1			
6. Average participatory community of practice	0.42**	0.30**	0.60**	0.39**	0.69**	1		
7. Average student socioeconomic status (SES)	0.58**	0.49**	0.49**	0.29**	0.22**	0.15	1	
8. School size	0.17*	0.18*	0.05	-0.07	-0.07	-0.05	0.05	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

NOTES: Estimates are based on a sample of 2,757 students in 142 schools.

Table 4.7: *School-Level Correlations for United States Sample*

	1	2	3	4	5	6	7	8
1. Average Civic knowledge	1							
2. Average Norms of democracy	0.75**	1						
3. Average Expectations for informed voting	0.41**	0.44**	1					
4. Average Discourse community of practice	0.39**	0.58**	0.76**	1				
5. Average collaborative community of practice	0.34**	0.55**	0.75**	0.83**	1			
6. Average participatory community of practice	0.34**	0.16**	0.57**	0.42**	0.50**	1		
7. Average student socioeconomic status (SES)	0.56**	0.57**	0.77**	0.76**	0.64*	0.35**	1	
8. School size	0.20*	0.16	-0.24**	-0.13	-0.19*	-0.22*	-0.18*	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

NOTES: Estimates are based on a sample of 2,396 students in 124 schools.

democracy with the participatory community of practice to 0.76 for expectations for voting with the discourse community (see Table 4.7, rows 4-6, columns 1-3). The correlation coefficients for the dimensions of communities of practice range from 0.42 for the participatory community with the discourse community to 0.83 for the collaborative community with the discourse community (rows 4-6, columns 4-5). Average SES ranges from 0.35 with the participatory community to 0.77 with expectations for informed voting (row 7, columns 1-6). All but two coefficients (norms of democracy and the discourse community) were statistically significant for school size. Only one coefficient was positive for school size—the association between size and average civic knowledge is 0.20. Four statistically significant coefficients were negative for school size: the association with average expectations for informed voting is -0.24; the association with the participatory community is -0.22; the association with the collaborative community is -0.19; and the association with average SES is -0.18 (row 8, columns 1-7).

Comparing the correlation coefficients across the two countries reveals several patterns. At the student level, expectations for informed voting has the strongest correlation with all three dimensions of communities of practice, and collaborative community displays the weakest correlation with civic knowledge and norms of democracy. Also at the student level, collaborative community has the strongest correlation with participatory community for both countries, though not strong enough to raise concerns about multicollinearity. In addition, although relatively modest, SES has its strongest association with civic knowledge in both countries.

Compared to the student level, the correlation coefficients at the school level are

larger in both Australia the United States. Overall, the patterns identified above for the student level measures are consistent at the school level. School size, however, has a positive correlation with all of the civic capacity variables and average SES in Australia, but a negative association with all of the communities of practice variables. In the United States, school size has a positive correlation with civic knowledge and norms of democracy, while the other variables are negative and mostly statistically significant. This difference between the two countries suggests that school size functions in different ways in Australia and the United States. Average SES also has a strong association with the measures of civic capacity and most of the measures of communities of practice, especially in the United States. Some of the correlations between the school-level measures are sufficiently high to warrant consideration of multicollinearity when interpreting results.

#### Hierarchical Linear Modeling Analysis

My analysis uses two-level hierarchical linear modeling (students nested within schools) to examine variation between schools in the measures of communities of practice and capacities of civic engagement, and student and school characteristics that may influence them. The three measures of communities of practice are entered so that their influence on civic capacities can be interpreted at both the student and school levels. All variables have been z-scored to allow for interpretation of the coefficients as effect sizes (i.e., as the proportion of a SD change in the dependent variable associated with a unit change in the independent variable).

I began my analysis by running two-level fully unconditional models for each of the three dimensions of communities of practice and each of the three measures of civic

capacities. These models are a preliminary step in HLM analyses to determine whether a statistically significant proportion of variability in the outcome measures is a function of the characteristics of the school attended by students. These models allow me to answer research questions one and three—that is, whether schools differ in terms of the communities of practice that students’ experience and students’ capacities for civic engagement.

Next, I ran a series of more complex models to examine possible student-level and school-level effects on the three dimensions of communities of practices and the three capacities of civic engagement. I first constructed three means-as-outcomes models to examine the association of each dimension of community of practice with the school’s student composition and size. These models answer research question two and permit an estimation of how much variation in the measures of communities of practice exists after controlling for average SES of students and the number of students enrolled at schools.

I also constructed three random-coefficients models to examine the association of civic capacities with students’ individual perceptions of communities of practice and students’ SES. At the student level the communities of practice measures are grand-mean centered and the measure of student SES is group-mean centered. In addition, the random effect for student SES is included to determine whether the relationship between SES and the three measures of civic capacity varies between schools. No variables are entered at the school level. These models answer research questions four and five. The models estimate the relationship between the three measures of civic capacity and the three measures of communities of practice within schools. They also determine whether students with more advantageous SES backgrounds have greater capacity for civic

engagement and whether that relationship might be attenuated (or strengthened) by unidentified school characteristics.

My fully conditional models, the final step in the analysis, were constructed to examine the extent to which average student and school dimensions of communities of practice are associated with average capacities for civic engagement. In addition, these models help to explain any variation among schools in the relationship between SES and the three measures of civic capacity. At the student level, the communities of practice variables were entered as they were in the random-coefficients models. The SES variable was entered as either group-mean centered or grand-mean centered depending on whether the random effect for SES was statistically significant. This is discussed in detail later in this section. The school-level models include the school average dimension of communities of practice, average SES, and school size as predictors.

#### *Fully Unconditional Models*

Each fully unconditional model only includes an outcome variable, either one of the dimensions of communities of practice measures (discourse, collaborative, or participatory) or one of the civic capacity measures (civic knowledge, norms of democracy, or expectations for informed voting). In a fully unconditional model, the variance in the outcome variable is partitioned into its within-school component ( $\sigma^2$ ) and its between-school components ( $\tau_{00}$ ). Using these components it is possible to calculate the intraclass correlation coefficient (ICC, or  $\rho$ ), which indicates the extent to which a student's individual value for the outcome measure depends on the school that he or she attends. I begin by presenting the results for the three dimensions of communities of

practice (research question one) and then present the results for the three dimensions of civic capacity (research question three).

*Dimensions of communities of practice*

The results of the fully unconditional models for the three dimensions of communities of practice are displayed in Table 4.8. The last two columns present the results for these models for Australia and the United States. The rows present various statistics associated with the fully unconditional model for each dimension, starting with students' perceptions of the discourse community. All measures of communities of practice were found to vary significantly between schools (see  $\tau_{00}$ , the between-school variance for each model), though in each case the proportion of variance attributable to schools is small.

*Discourse community of practice.* In Australia, the mean school average ( $\gamma_{00}$ ) of the discourse community is -0.01 SD, roughly equivalent to the student average ( $M = 0$ ). However, there is a statistically significant difference between schools in students' perceptions of the discourse community ( $\tau_{00}$ ), with the proportion of variance in students' perceptions attributable to schools equal to 0.07 (ICC). The mean school average ( $\gamma_{00}$ ) for the discourse community in the United States is the same as the mean school average for the discourse community in Australia. Although the school mean varies between schools in the United States ( $\tau_{00}$ ), the proportion of variance attributable to schools is slightly smaller than it is in Australia (ICC = 0.05). The reliability estimates for the school means ( $\lambda$ ) in each country reflects the relatively small amount of variance in the discourse community attributable to schools. Although these reliabilities are modest, they are

Table 4.8: *Fully Unconditional Model for the Dimensions of Communities of Practice*

	Australia	United States
<b>Discourse community of practice</b>		
Mean school average, $\gamma_{00}$	-0.01	-0.01
Between school variance, $\tau_{00}$	0.07***	0.05***
Within school variance, $\sigma^2$	0.93	0.95
Proportion of variance between schools (intraclass correlation coefficients or ICC)	0.07	0.05
Reliability, $\lambda$	0.59	0.51
<b>Collaborative community of practice</b>		
Mean school average, $\gamma_{00}$	-0.01	-0.00
Between school variance, $\tau_{00}$	0.05***	0.03***
Within school variance, $\sigma^2$	0.96	0.97
Proportion of variance between schools (intraclass correlation coefficients or ICC)	0.05	0.03
Reliability, $\lambda$	0.47	0.34
<b>Participatory community of practice</b>		
Mean school average, $\gamma_{00}$	-0.02	-0.01
Between school variance, $\tau_{00}$	0.06***	0.04***
Within school variance, $\sigma^2$	0.94	0.96
Proportion of variance between schools (intraclass correlation coefficients or ICC)	0.06	0.04
Reliability, $\lambda$	0.53	0.45

†  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Notes: In Australia  $n = 2,757$  students in 142 schools; the United States  $n = 2,396$  students in 124 schools. Weighted by adjusted houseweight at level-1. Each measure of communities of practice varied significantly among schools in each country.



sufficient for multilevel modeling.<sup>14</sup>

*Collaborative community of practice.* In Australia, the mean school average of the collaborative community ( $\gamma_{00}$ ) is -0.01 SD, similar to the mean school average for the discourse community. School means vary among schools in Australia ( $\tau_{00}$ ), and the proportion variance in students' perception that exists between schools is 0.05 (ICC). The mean school average ( $\gamma_{00}$ ) in the United States is essentially the same as the student average ( $M = 0$ ). The amount of variance between schools in student perceptions is statistically significant ( $\tau_{00}$ ) but small (ICC = 0.03). The reliability estimates for the school means ( $\lambda$ ) in each country are smaller than the reliability estimates for the discourse community; however, they are still sufficient for multilevel modeling.

*Participatory community of practice.* In Australia, the mean school average ( $\gamma_{00}$ ) of the participatory community is -0.02 SD. There is statistically significant variation among schools in students' perceptions of the participatory community ( $\tau_{00}$ ), with the proportion of variance attributable to schools being 0.06 (ICC). The mean school average ( $\gamma_{00}$ ) in the United States is essentially the same as the mean school average in Australia. School means vary between schools ( $\tau_{00}$ ), and a slightly smaller proportion of the variance in students' perceptions can be attributed to schools compared to the proportion in Australia (ICC = 0.04). The reliability estimates for the school means ( $\lambda$ ) in each country are higher than the estimates for collaborative community but lower than the estimates for discourse community.

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<sup>14</sup> The reliability ( $\lambda$ ) of a random parameter in multilevel models is a function of the between group variance and the within group sample size. It ranges from 0-1. Unlike Cronbach's alpha there is no set standard for what constitutes sufficient reliability. Moreover, reliability is not constant and changes with model specification (e.g., it may actually increase after specifying the level-1 model). As a result, researchers interpret the reliability of intercepts and slopes differently than reliability in classical measurement theory (see Raudenbush & Bryk, 2002),

### *Capacities of Civic Engagement*

The results of the fully unconditional models for the three dimensions of civic capacity are displayed in Table 4.9. The last two columns present the results for these models for Australia and the United States, and the rows present statistics associated with the fully unconditional model for each dimension, starting with civic knowledge. All measures of civic capacity were found to vary significantly between schools (as in Table 4.8, see  $\tau_{00}$ ). Civic knowledge varied the most between schools, followed by norms of democracy and expectations for informed voting.

*Civic knowledge.* In Australia, the mean school average ( $\gamma_{00}$ ) for civic knowledge is  $-0.06$  SD, slightly lower than the student average ( $M = 0$ ). School means vary in Australia ( $\tau_{00}$ ), with students exhibiting statistically significant higher levels of civic knowledge in some schools and lower levels of civic knowledge in others. The proportion of variance attributable to schools is  $0.20$  (ICC). In the United States, civic knowledge has a mean school average similar to that in Australia ( $\gamma_{00} = -0.05$  SD). School means vary significantly among schools ( $\tau_{00}$ ), with the proportion of variance attributable to schools being  $0.28$  (ICC). The reliability estimates for the schools means ( $\lambda$ ) in each country are noticeably higher than the estimates for the other outcomes, due largely to the larger proportion of variance that can be attributed to schools.

*Norms of democracy.* In Australia, the mean school average ( $\gamma_{00}$ ) for norms of democracy is  $-0.02$  SD. School means vary significantly ( $\tau_{00}$ ), though the proportion of variance in norms of democracy attributable to schools is smaller than the proportion of variance in civic knowledge attributable to schools (ICC =  $0.08$ ). The mean school average for norms of democracy is roughly the same in the United States as it is in

Table 4.9: *Fully Unconditional Model for Capacities of Civic Engagement*

	Australia	United States
<b>Civic knowledge</b>		
Mean school average, $\gamma_{00}$	-0.06	-0.05
Between school variance, $\tau_{00}$	0.20***	0.28***
Within school variance, $\sigma^2$	0.80	0.74
Proportion of variance between schools (intraclass correlation coefficients or ICC)	0.20	0.27
Reliability, $\lambda$	0.82	0.86
<b>Norms of democracy</b>		
Mean school average, $\gamma_{00}$	-0.02	-0.01
Between school variance, $\tau_{00}$	0.08***	0.10***
Within school variance, $\sigma^2$	0.92	0.91
Proportion of variance between schools (intraclass correlation coefficients or ICC)	0.08	0.10
Reliability, $\lambda$	0.61	0.66
<b>Expectations for informed voting</b>		
Mean school average, $\gamma_{00}$	-0.02	-0.02
Between school variance, $\tau_{00}$	0.05***	0.08***
Within school variance, $\sigma^2$	0.95	0.92
Proportion of variance between schools (intraclass correlation coefficients or ICC)	0.05	0.08
Reliability, $\lambda$	0.52	0.62

†  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Notes: In Australia  $n = 2,757$  students in 142 schools; the United States  $n = 2,396$  students in 124 schools. Weighted by adjusted houseweight at level-1. Each measure of civic capacities varied significantly among schools in each country.

Australia ( $\gamma_{00} = -0.01$  SD). School means vary significantly ( $\tau_{00}$ ), and the proportion of variance between schools is 0.10 (ICC). Estimates of reliability for the school means ( $\lambda$ ) in each country are lower than the estimates for civic knowledge but higher than the estimates for expectations for informed voting.

*Expectations for informed voting.* In Australia, the mean school average ( $\gamma_{00}$ ) for expectations for informed voting is -0.02 SD, and the school means vary significantly among schools ( $\tau_{00}$ ). The proportion of variance in expectations for informed voting that exists between schools is 0.05 (ICC). In the United States, the mean school average in expectations for informed voting is -0.02 SD. School means vary significantly between schools ( $\tau_{00}$ ), with the proportion of variance attributable to schools being 0.08 (ICC). The estimates of reliability for the school means ( $\lambda$ ) are somewhat lower than the estimates for norms of democracy but higher than most estimates for communities of practice.

In summary, the fully unconditional models indicate statistically significant variability in the school means for the dimensions of communities of practice and the dimensions of civic capacity in Australia and the United States. In Australia, approximately 7 percent (discourse community), 5 percent (collaborative community), and 6 percent (participatory community) of the variance is between schools. In the United States, the variance in these same outcomes is approximately 5 percent, 3 percent, and 4 percent, respectively. In addition, the reliability estimates for school means in Australia and the United States, though modest, are strong enough to detect school effects with multilevel models.

Looking at the dimensions of civic capacity, in Australia, approximately 20 percent (civic knowledge), 8 percent (norms of democracy), and 5 percent (expectations for informed voting) of the variance is between schools. In the United States, the variance in these same outcomes is approximately 28 percent, 10 percent, and 8 percent, respectively. In addition, the reliability estimates for school means in Australia and the United States are higher than those for communities of practice and sufficient to detect school effects with multilevel models.

#### *Means-As-Outcomes Models*

Analyses of the fully unconditional models indicate that the school average for each of the three dimensions of community of practice varies among schools. These findings support the construction of means-as-outcomes models to address research question three. In the means-as-outcomes models, I examined the association of each dimension of community of practice with student composition (average SES of students sampled within a school) and size (administrative reports of the number of students in a school). Specifically, in each model, I selected one dimension of community of practice as the dependent variable at the student level and three additional measures at the school level to model the intercept—average SES, school size, and a dummy-coded variable (what I refer to as a “school size flag”) that indicates whether the value for school size was set to the sample mean due to missing data (1 = yes). This variable, though not substantively meaningful, controls for the possibility that the effects of school size are not the same for cases with and without missing data (i.e., the cases for which the value of size was set to the sample mean). All three school-level variables are grand-mean centered in the models.

Results for the model are presented in Table 4.10. The last two columns present the results of the means-as-outcome models for Australia and the United States. The rows present the parameter estimates ( $\gamma_{qq}$ ) for each dependent variable, beginning with the discourse community of practice. Because the dependent variable is standardized ( $M = 0$ ,  $SD = 1$ ), coefficients can be interpreted as effect sizes (i.e., a proportion change in the SD of the dependent variable associated with a unit change in the independent variable). The variance components for each model are also included: the adjusted variance among schools after specifying the school-level variables ( $u_0$ ) and the variance within schools ( $r$ ).

Perceptions about the discourse community in both Australia and the United States, the collaborative community in Australia, and the participatory community in the United States are associated with the average SES of students in schools ( $\gamma_{01}$ ). Neither school size ( $\gamma_{02}$ ) nor the school size flag ( $\gamma_{03}$ ) is associated with any of the dimensions of communities of practice. The coefficients indicate that schools that serve students from more advantageous SES backgrounds have more positive perceptions about specific communities of practice, though the relationship varies somewhat between countries. In Australia, the relationship between school average SES and students' perceptions of the discourse community is 0.11 SD ( $\gamma_{01}$ ); in the United States, the relationship is 0.14 SD ( $\gamma_{01}$ ). The relationship is statistically significant in both countries. The relationship between school average SES and students' perceptions of the collaborative community is statistically significant only in Australia ( $\gamma_{01} = 0.07$  SD), whereas the relationship between school average SES and students' perceptions of the participatory community is statistically significant only in the United States ( $\gamma_{01} = 0.10$  SD).

Table 4.10: *Means-as-Outcomes Models for Communities of Practice, Average Socioeconomic Status, and School Size in Australia and the United States*

	Australia	United States
<b>Discourse community of practice</b>		
Fixed coefficients		
Intercept, $\gamma_{00}$	-0.02	-0.03
Average SES, $\gamma_{01}$	0.11***	0.14***
Average School Size, $\gamma_{02}$	-0.03	0.01
School Size Flag, $\gamma_{03}$	-0.06	0.08
Variance components		
Intercept, $u_0$	0.06***	0.04***
Level-1, $r$	0.93	0.94
<b>Collaborative community of practice</b>		
Fixed coefficients		
Intercept, $\gamma_{00}$	-0.02	-0.01
Average SES, $\gamma_{01}$	0.07*	0.04
Average School Size, $\gamma_{02}$	-0.03	-0.02
School Size Flag, $\gamma_{03}$	-0.05	0.07
Variance components		
Intercept, $u_0$	0.04***	0.03***
Level-1, $r$	0.95	0.97
<b>Participatory community of practice</b>		
Fixed coefficients		
Intercept, $\gamma_{00}$	-0.02	-0.03
Average SES, $\gamma_{01}$	0.04	0.10**
Average School Size, $\gamma_{02}$	-0.03	-0.03
School Size Flag, $\gamma_{03}$	-0.01	0.07
Variance components		
Intercept, $u_0$	0.06***	0.04***
Level-1, $r$	0.94	0.96

†  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Notes: In Australia  $n = 2,757$  students in 142 schools; the United States  $n = 2,396$  students in 124 schools. Weighted by adjusted houseweight at level-1.

The variance components for each model indicate that there are still differences among schools in students' perceptions of the communities of practice after considering average SES, school size, and the school size flag for missing data. In each model, the adjusted between-school variance, though small ( $u_0 = 0.03 - 0.06$ ), is statistically significant. These findings provide support for considering students' perceptions of communities of practice as both a characteristic of individuals and schools. If the between-school variance component was not statistically significant, it would indicate that there was no difference among schools in students' perceptions of these dimensions independent of student composition and school size.

*Random-Coefficients Models (or Within-School Models)*

The random-coefficients models address research questions four and five. These questions consider whether there is a relationship between the three dimensions of civic capacity, individual student perceptions of communities of practice, and individual student SES. Research question five also considers whether the relationship between individual student SES and civic capacity varies among schools—that is, whether it is possible that school characteristics moderate the potential disadvantages associated with coming from a low socioeconomic background.

To address these two research questions I constructed three random-coefficients models specifying each civic capacity at the student level as the dependent variable. I then included each communities of practice measure (grand-mean centered) and the student SES measure (group-mean centered) in the model at the student level. The three measures of communities of practice were specified as fixed (i.e., I did not estimate



whether their coefficients vary across schools) and the measure for student SES was specified as random. The school level was left unconditional.

Results from the random-coefficients models are presented in Table 4.11. The last two columns present the results for Australia and the United States. The rows present the parameter estimates ( $\gamma_{qq}$ ) for each dependent variable, beginning with civic knowledge. Because the dependent variable is standardized ( $M = 0$ ,  $SD = 1$ ), coefficients can be interpreted as effect sizes. The variance components for each model are also included: the adjusted variance between schools in the intercept ( $u_0$ ), the adjusted variance between schools in the SES slope ( $u_1$ ), and the adjusted variance within schools ( $\tau$ ). If the relationship between student SES and civic capacity varies between schools, the variance component for the slope ( $u_4$ ) will be statistically significant. Findings for each of the three civic capacities are discussed separately.

*Civic Knowledge.* The results of the random-coefficients models for civic knowledge for Australia and the United States are relatively similar. In both countries, individual student perceptions of the discourse community and participatory community are associated with student civic knowledge, but there is no relationship with individual student perceptions of the collaborative community. Students who have more positive perceptions of the discourse community in their schools also have higher levels of civic knowledge in Australia ( $\gamma_{10} = 0.10$  SD) and the United States ( $\gamma_{10} = 0.08$  SD). A similar positive relationship exists for students who have more positive perceptions of the participatory community in their schools. In both countries, students who have more positive perceptions of the participatory community also have higher levels of civic knowledge ( $\gamma_{30} = 0.06$  SD).

Table 4.11: *Random-Coefficients Models for the Association Between Student's Civic Capacities and Student's Individual Characteristics in Australia and the United States*

	Australia	United States
<b>Civic knowledge</b>		
Fixed coefficients		
Intercept, $\gamma_{00}$	-0.06	-0.06
Discourse community of practice, $\gamma_{10}$	0.10***	0.08***
Collaborative community of practice, $\gamma_{20}$	-0.00	0.02
Participatory community of practice, $\gamma_{30}$	0.06*	0.06*
Individual SES, $\gamma_{40}$	0.19***	0.21***
Variance components		
Intercept, $u_0$	0.18***	0.26**
SES slope, $u_4$	0.00	0.01†
Level-1, $r$	0.75	0.68
<b>Norms of democracy</b>		
Fixed coefficients		
Intercept, $\gamma_{00}$	-0.02	-0.02
Discourse community of practice, $\gamma_{10}$	0.08**	0.09***
Collaborative community of practice, $\gamma_{20}$	0.02	0.06*
Participatory community of practice, $\gamma_{30}$	0.14***	0.12***
Individual SES, $\gamma_{40}$	0.11***	0.16***
Variance components		
Intercept, $u_0$	0.07***	0.08***
SES slope, $u_4$	0.00	0.01
Level-1, $r$	0.88	0.83
<b>Expectations for informed voting</b>		
Fixed coefficients		
Intercept, $\gamma_{00}$	-0.01	-0.03
Discourse community of practice, $\gamma_{10}$	0.18***	0.17***
Collaborative community of practice, $\gamma_{20}$	0.16***	0.17***
Participatory community of practice, $\gamma_{30}$	0.17***	0.16***
Individual SES, $\gamma_{40}$	0.12***	0.18***
Variance components		
Intercept, $u_0$	0.02***	0.05***
SES slope, $u_4$	0.00	0.01*
Level-1, $r$	0.80	0.75

†  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Notes: In Australia  $n = 2,757$  students in 142 schools; the United States  $n = 2,396$  students in 124 schools. Weighted by adjusted houseweight at level-1.

The random-coefficients models also indicate that students from higher socioeconomic backgrounds have higher levels of civic knowledge compared to students from lower socioeconomic backgrounds in the same school. More specifically, for every standard deviation increase in a student's SES ( $\gamma_{40}$ ), civic knowledge increases 0.19 SD and 0.21 SD in Australia and the United States, respectively.

The adjusted school variance component ( $u_0$ ) for civic knowledge is statistically significant in both models—0.18 and 0.26 for the random-coefficient models for Australia and the United States, respectively. At the same time, the adjusted school variance component ( $u_4$ ) for the SES slope is only statistically significant in the United States (0.01 SD,  $p < 0.10$ ). In other words, while the association between student individual SES and civic knowledge is constant among schools in Australia, the association varies among schools in the United States. In some schools the relationship is stronger whereas in other schools the relationship is weaker.

*Norms of Democracy.* The results for the random-coefficient models for norms of democracy also indicate that both students' individual perceptions of communities of practice and their socioeconomic background are associated with civic capacity. In both countries, individual perceptions of the discourse community and participatory community are associated with a student's beliefs about norms of democracy; in the United States, individual perceptions of the collaborative community are also associated with these beliefs. Students who have more positive perceptions of the discourse community and the participatory community in their schools have more positive perceptions about norms of democracy in Australia ( $\gamma_{10} = 0.08$  SD;  $\gamma_{30} = 0.14$ ) and the United States ( $\gamma_{10} = 0.09$  SD;  $\gamma_{30} = 0.12$ ). Students with more positive perceptions of the

collaborative community also have more positive beliefs about norms of democracy in their schools, but only in the United States ( $\gamma_{20} = 0.06$  SD).

The findings for the random-coefficients models also provide evidence that students from higher socioeconomic backgrounds have more positive beliefs about norms of democracy compared to students from less advantaged backgrounds in the same school. More specifically, a standard deviation increase in a student's SES ( $\gamma_{40}$ ) is associated with 0.11 SD increase in norms of democracy in Australia and 0.16 SD increase in norms of democracy in the United States.

The variation between schools in average beliefs about norms of democracy is statistically significant in the models for Australia and the United States. The adjusted school variance component ( $u_0$ ) for norms of democracy is 0.07 in Australia and 0.08 in the United States. The adjusted school variance component ( $u_4$ ) for the SES slope, however, is not statistically significant for the random-coefficient models for either country. In other words, the association between student individual SES and norms of democracy is constant and does not depend on the schools that a student attends in either Australia or the United States.

*Expectations for Informed Voting.* The individual perceptions of all of the dimensions of communities of practice are associated with higher expectations for informed voting in both Australia and the United States. On average, students with more positive perceptions of the discourse community in their schools have higher expectations for informed voting in Australia ( $\gamma_{10} = 0.18$  SD) and the United States ( $\gamma_{10} = 0.17$  SD). Very similar relationships exist in both countries for individual perceptions of the collaborative community and participatory community in schools. Students with more

positive perceptions of these dimensions of communities of practice also have higher expectations for informed voting in Australia ( $\gamma_{20} = 0.16$  SD;  $\gamma_{30} = 0.17$ ) and the United States ( $\gamma_{20} = 0.17$  SD;  $\gamma_{30} = 0.16$ ).

As indicated by the random-coefficients model for expectations for informed voting, student individual SES is related to all three dimensions of communities of practice. For every standard deviation increase in a student's SES ( $\gamma_{40}$ ), expectations for informed voting increases by 0.12 SD and 0.18 SD in Australia and United States, respectively.

The adjusted school variance component for expected informed voting in Australia and the United States remains statistically significant in each random-coefficients model. The adjusted variance estimate for the school means for expectations for informed voting in Australia and the United States are 0.02 and 0.05, respectively. At the same time, the adjusted school variance component for the SES slope is only statistically significant in the United States (0.01 SD,  $p < 0.05$ ). In other words, while the relationship between individual SES and expectations for informed voting is constant among the schools in Australia, the relationship varies among schools in the United States. School characteristics, such as the school average perceptions of communities of practices, might attenuate the relationship between individual SES and voting expectations in schools in the United States.

In summary, the random-coefficients models reveal that individual student perceptions of communities of practice are positively and significantly associated with the measures of civic capacity in each country, although the associations vary somewhat for norms of democracy. In both Australia and the United States, each dimension of

communities of practice has its strongest relationship with expectations for informed voting. Also in both countries, individual student perceptions of the discourse community and participatory community are related to higher levels of civic knowledge and more positive beliefs about norms of democracy. In the United States, individual perceptions of the collaborative community of practice are also related to the values and norms underlying democratic principles.

In both countries, individual student SES is associated with all three dimensions of civic capacity at levels often equal to or greater than the three dimensions of communities of practice. This relationship is most evident in the civic knowledge model, where student SES appears to have a greater influence than any of the three dimensions of communities of practice. In addition, the random-coefficients models reveal that the relationship between student SES and civic capacities varies significantly only in the United States, and then only for individual perceptions of the discourse community and expectations for informed voting within schools.

#### *Fully Conditional Models*

The fully conditional models address research questions six and seven. These questions consider whether there is a relationship between the three dimensions of civic capacity and average student perceptions of communities of practice after controlling for average student SES and school size. They also consider whether the relationship between individual student SES and each of the civic capacities might be a function of students' average perceptions of communities of practice.

Building the models to address these questions required several steps. Initially, all models were constructed the same as the random coefficients models but with the

inclusion of all of the school level communities of practice measures (grand-mean centered) against the intercept and the two randomly varying slopes for individual SES (civic knowledge and expectations for voting in the United States).<sup>15</sup> Individual student SES was group-mean centered for those models in which the slope was specified as random and grand-mean centered in the remaining models. Next, I added the average school SES and school size measures (grand-mean centered) as controls against the intercept and the two randomly varying slopes at the school level. The results of the fully conditional models are displayed in Tables 4.12, 4.13, and 4.14.

Each table presents the results for Australia and the United States, first without controls and then with controls. The rows present the parameter estimates ( $\gamma_{qq}$ ) for each dependent variable, beginning with civic knowledge. The results for the within- or student-level model are represented on the left side of the table ( $\gamma_{00}$  through  $\gamma_{40}$ ). These results report the coefficients for the student-level variables (e.g., individual perceptions of the discourse community or individual student SES). The results for the between-school model are represented by the indented variables listed under the school intercept ( $\gamma_{00}$ ) and the SES slope intercept ( $\gamma_{40}$ ). These results report the coefficients for the school-level variables (e.g., average perceptions of the discourse community and average student SES). Because the dependent variable is standardized ( $M = 0$ ,  $SD = 1$ ), both the student-level and school-level coefficients can be interpreted as effect sizes. The variance components for each model are included at the bottom of the table: the adjusted variance between schools in the intercept ( $u_0$ ), the adjusted variance between schools in the SES slope ( $u_4$ ), and the adjusted variance within schools ( $r$ ).

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<sup>15</sup> Examination of whether individual student SES slope is moderated by the school characteristics is a central research question for this study. Including the dimensions of communities of practice, average school SES, and school size allows exploration of possible cross-level effects.

When examining the coefficients for the communities of practice variables and SES, I considered whether there were any indications of a contextual effect—that is, an independent association for one of these variables at *both* the student and school levels. Such an association would indicate that a student’s civic capacity could be the function of not only her beliefs about pedagogical practices associated with communities of practices but the beliefs of her peers as well. Because I grand-mean centered all of the student-level measures of communities of practice, the school-level counterparts for each measure provide a direct test of whether a contextual effect could exist. In the case of the two models in which individual student SES is group-mean centered (civic knowledge and expectations for voting in the United States), I used an ad hoc hypothesis test to determine if a contextual effect might exist.

Overall, the findings indicate that many of the relationships of communities of practice with the development of civic capacities are similar between Australia and the United States.<sup>16</sup> More specifically, students’ perceptions of the school context for specific dimensions of communities of practice have an influence on the development of capacities for civic engagement in both countries. The findings also indicate SES and school size may have important influence in the development of student capacities for civic engagement.

*Civic Knowledge Models.* The results of the fully conditional models for civic knowledge reveal school contextual effects for communities of practice only in Australia (see  $\gamma_{01}$  through  $\gamma_{06}$  in Table 4.12). Specifically, a one standard deviation increase in the availability of the participatory community in schools is related to almost two fifths of a

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<sup>16</sup> I tested for statistically significant differences for all measures between countries. With the exception of the SES slope for expectations for informed voting, the coefficients are essentially the same.



Table 4.12: *Fully Conditional Model for the Association Between Students' Civic Knowledge and Students' Individual and Collective Perceptions of Communities of Practice in Australia and the United States*

	Australia		United States	
	(no controls)	(with controls)	(no controls)	(with controls)
<b>Civic Knowledge</b>				
Fixed coefficients				
Intercept, $\gamma_{00}$	-0.05	-0.05†	-0.09	-0.11**
Discourse community of practice, $\gamma_{01}$	0.17	0.04	0.51**	0.19
Collaborative community of practice, $\gamma_{02}$	0.06	0.01	-0.22	-0.03
Participatory community of practice, $\gamma_{03}$	0.33*	0.38*	0.44*	0.12
Average SES, $\gamma_{04}$	-	0.38***	-	0.77***
School Size, $\gamma_{05}$	-	0.05†	-	-0.02
Missing School Size, $\gamma_{06}$	-	-0.02	-	-0.01
Discourse community of practice slope, $\gamma_{10}$	0.09***	0.09***	0.07**	0.08**
Collaborative community of practice slope, $\gamma_{20}$	-0.01	-0.01	0.02	0.02
Participatory community of practice slope, $\gamma_{30}$	0.05*	0.05*	0.05*	0.05*
Average SES slope				
Intercept, $\gamma_{40}$	0.22***	0.20***	0.21***	0.21***
Discourse community of practice slope, $\gamma_{41}$	-	-	0.00	-0.00
Collaborative community of practice slope, $\gamma_{42}$	-	-	-0.08	-0.10
Participatory community of practice slope, $\gamma_{43}$	-	-	0.05	-0.01
Average SES, $\gamma_{44}$	-	-	-	0.04
School Size, $\gamma_{45}$	-	-	-	-0.05**
Missing School Size, $\gamma_{46}$	-	-	-	0.02
Variance components				
Intercept, $u_0$	0.12***	0.09***	0.21***	0.07***
SES slope, $u_4$	-	-	0.01†	0.01
Level-1, $r$	0.75	0.75	0.68	0.68

†  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Notes: In Australia  $n = 2,757$  students in 142 schools; the United States  $n = 2,396$  students in 124 schools. Weighted by adjusted houseweight at level-1. Measures were grand-mean centered (except for SES which was group-mean centered at the student level).

standard deviation increase in civic knowledge. In the United States, school contextual effects for the discourse and participatory communities of practice are associated with the development of civic knowledge when no control measures are in the model. However, these contextual effects are explained away when control measures are included in the model. There is also a contextual effect associated with average student SES in both countries. In general, students who attend schools with more advantaged SES students have higher levels of civic knowledge. The effect in Australia is nearly two fifths of a standard deviation whereas the effect in the United States is about one half of a standard deviation.<sup>17</sup> Neither school size nor the school flag for missing data contribute appreciably to the school-level model for the school intercept.

In Australia and the United States, individual student perceptions of the discourse community and the participatory community are associated with civic knowledge both with and without control measures in the model (see  $\gamma_{10}$  through  $\gamma_{30}$  in Table 4.12). A one standard deviation increase in student beliefs about the discourse community is associated with about one tenth of a standard deviation increase in civic knowledge in Australia and the United States. Individual student perception's of the participatory community of practice in both countries is associated with about a five percent of a standard deviation increase in civic knowledge. In Australia, the contextual effect of the participatory community has a larger influence on civic knowledge than individual perceptions.

The fully conditional models for Australia and the United States also indicate that students from higher socioeconomic backgrounds have higher levels of civic knowledge compared to students from lower socioeconomic backgrounds. In Australia and the

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<sup>17</sup> Because individual SES in the model for the United States is group-mean centered, the contextual effect is equal to the difference between the student-level and school-level coefficients.

United States, the coefficients are roughly the same—one fifth of a standard deviation. Recall in the United States model, the slope for individual student SES was allowed to vary among schools. However, none of the measure of communities of practice had any association with the slope. The only statistically significant effect for the slope model was for school size. The results indicate that the effects of SES on civic knowledge are less in a smaller school ( $0.21 - 0.05 = 0.16$  SD) than a larger school ( $0.21 + 0.05 = 0.26$  SD).

By comparing the variance estimates for the fully-unconditional model to the variance estimates for the fully conditional model, it is possible to estimate a pseudo  $r^2$  for the within-school and between-school proportions of the variance. According to these results, the student model explains about six percent of the within-school variance in Australia and eight percent of the within-school variance in the United States, whereas the school model explains about 54 percent of the between-school variance in Australia and 74 percent of between-school variance in the United States. In the United States, the variance component associated with the SES slope ( $u_4 = 0.01$ ) is virtually unchanged compared to the variance component associated with the SES slope for the random-coefficients model, indicating that very little variance in the slope is explained by the fully conditional model (see Appendix C).

*Norms of Democracy Models.* No associations were found between the three dimensions of communities of practice at the school level and norms of democracy in Australia, but there were statistically significant associations for school collaborative community and participatory community with norms of democracy for schools in the United States (see  $\gamma_{01}$  through  $\gamma_{06}$  in Table 4.13). Specifically, a one standard deviation

Table 4.13: *Fully Conditional Model for the Association Between Students' Norms of Democracy and Students' Individual and Collective Perceptions of Communities of Practice in Australia and the United States*

	Australia		United States	
	(no controls)	(with controls)	(no controls)	(with controls)
<b>Norms of Democracy</b>				
Fixed coefficients				
Intercept, $\gamma_{00}$	-0.02	-0.02	-0.03	-0.04
Discourse community of practice, $\gamma_{01}$	0.14	0.06	0.25*	0.17
Collaborative community of practice, $\gamma_{02}$	-0.03	-0.05	0.24†	0.29*
Participatory community of practice, $\gamma_{03}$	0.09	0.12	-0.14	-0.21
Average SES, $\gamma_{04}$	-	0.25**	-	0.21***
School Size, $\gamma_{05}$	-	0.06*	-	-0.01
Missing School Size, $\gamma_{06}$	-	0.07	-	-0.09
Discourse community of practice slope, $\gamma_{10}$	0.07**	0.07**	0.08**	0.08**
Collaborative community of practice slope, $\gamma_{20}$	0.02	0.02	0.05†	0.05*
Participatory community of practice slope, $\gamma_{30}$	0.13***	0.13***	0.13***	0.13***
Average SES slope				
Intercept, $\gamma_{40}$	0.14***	0.11***	0.19***	0.16***
Discourse community of practice slope, $\gamma_{41}$	-	-	-	-
Collaborative community of practice slope, $\gamma_{42}$	-	-	-	-
Participatory community of practice slope, $\gamma_{43}$	-	-	-	-
Average SES, $\gamma_{44}$	-	-	-	-
School Size, $\gamma_{45}$	-	-	-	-
Missing School Size, $\gamma_{46}$	-	-	-	-
Variance components				
Intercept, $u_0$	0.05***	0.04***	0.04***	0.04***
SES slope, $u_4$	-	-	-	-
Level-1, $r$	0.88	0.88	0.84	0.84

†  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Notes: In Australia  $n = 2,757$  students in 142 schools; the United States  $n = 2,396$  students in 124 schools. Weighted by adjusted houseweight at level-1. Measures were grand-mean centered.

increase in average school collaborative community results in almost one third of a standard deviation increase in norms of democracy. Although both school discourse community and collaborative community were statistically significant before considering the effects of average student SES and school size, only school collaborative community remained statistically significant after including the controls. Similar to the results for civic knowledge, there is also a contextual effect associated with average student SES in both countries. On average, students who attend schools with more advantaged SES students have more positive beliefs about norms of democracy. The effects are roughly one fifth and one quarter of a standard deviation in Australia and the United States, respectively. School size is associated with norms of democracy in Australia but not the United States. Students who attend larger schools in Australia have more positive beliefs about norms of democracy ( $\gamma_{05} = 0.06$  SD).

Individual student perceptions of the discourse community and the participatory community are associated with beliefs about norms of democracy in Australia, whereas all three dimensions of communities of practice are associated with these same beliefs in the United States (see  $\gamma_{10}$  through  $\gamma_{30}$  in Table 4.13). A one standard deviation increase in student perceptions of the discourse community is associated with a seven percent of a standard deviation increase in norms of democracy in Australia and an eight percent of a standard deviation increase in norms of democracy in the United States. A similar increase in student perceptions of the participatory community is associated with increases in norms of democracy by 13 percent of a standard deviation in both countries. In the United States, student perceptions of collaborative community are also associated with norms of democracy. A standard deviation increase in student perceptions of

collaborative community is associated with a five percent of a standard deviation increase in norms of democracy.

The association of student SES and norms of democracy is also statistically significant in both countries. For every one standard deviation increase in individual SES, norms of democracy increases by 11 percent of a standard deviation in Australia and by 16 percent of a standard deviation in the United States. Because the relationship between student SES and norms of democracy did not vary among schools in either country, there are no school-level variables specified for the student SES slope intercept ( $\gamma_{40}$ ) in Table 4.13).

The adjusted variance estimates within- and between-schools for norms of democracy in both Australia and the United States, although smaller in the fully conditional model remain statistically significant. The student-level model explains approximately four percent of the within-school variance in Australian and seven percent of the within-school variance in the United States, whereas the school-level model explains approximately 55 percent of the between-school variance in Australian and 64 percent of the between-school variance in the United States (see Appendix C).

*Expectations for Informed Voting.* Contextual effects expectations for informed voting were found for schools in both Australia and the United States (see  $\gamma_{01}$  through  $\gamma_{06}$  in Table 4.14). In schools both in Australia and the United States, the school participatory community has a positive and statistically significant association with expectations for informed voting with and without controls. After adjusting for average student SES and school size, the coefficient is equal to one fifth of a standard deviation in both countries. None of the other dimensions of communities of practice is associated with expectations

Table 4.14: *Fully Conditional Model for the Association Between Students' Expectations for Informed Voting and Students' Individual and Collective Perceptions of Communities of Practice in Australia and the United States*

	Australia		United States	
	(no controls)	(with controls)	(no controls)	(with controls)
<b>Expectations for Informed Voting</b>				
Fixed coefficients				
Intercept, $\gamma_{00}$	-0.02	-0.02	-0.04	-0.07**
Discourse community of practice, $\gamma_{01}$	-0.07	-0.12	0.14	-0.04
Collaborative community of practice, $\gamma_{02}$	0.12	0.11	0.00	0.12
Participatory community of practice, $\gamma_{03}$	0.18†	0.20*	0.32*	0.20†
Average SES, $\gamma_{04}$	-	0.14**	-	0.36***
School Size, $\gamma_{05}$	-	0.03†	-	0.03
Missing School Size, $\gamma_{06}$	-	0.04	-	0.05
Discourse community of practice slope, $\gamma_{10}$	0.18***	0.18***	0.16***	0.16***
Collaborative community of practice slope, $\gamma_{20}$	0.15***	0.15***	0.17***	0.17***
Participatory community of practice slope, $\gamma_{30}$	0.16***	0.16***	0.14***	0.14***
Average SES slope				
Intercept, $\gamma_{40}$	0.15***	0.13***	0.19***	0.19***
Discourse community of practice slope, $\gamma_{41}$	-	-	-0.05	-0.11
Collaborative community of practice slope, $\gamma_{42}$	-	-	0.16	0.22†
Participatory community of practice slope, $\gamma_{43}$	-	-	-0.11	-0.17
Average SES, $\gamma_{44}$	-	-	-	0.14**
School Size, $\gamma_{45}$	-	-	-	0.01
Missing School Size, $\gamma_{46}$	-	-	-	-0.06
Variance components				
Intercept, $u_0$	0.01†	0.00	0.04***	0.01**
SES slope, $u_4$	-	-	0.01*	0.01†
Level-1, $r$	0.80	0.80	0.75	0.74

†  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Notes: In Australia  $n = 2,757$  students in 142 schools; the United States  $n = 2,396$  students in 124 schools. Weighted by adjusted houseweight at level-1. Measures were grand-mean centered (except for SES which was group-mean centered at the student level).

for informed voting at the school level. As with each of the prior two models, there is also a contextual effect associated with average student SES. In general, students who attend schools with more advantaged students also have higher expectations for informed voting. The effects are 13 percent of a standard deviation in Australia and 21 percent of a standard deviation in the United States (see footnote 15). School size is associated with expectations for informed voting in Australia but not in the United States. Students in Australia who attend larger schools have higher expectations for informed voting ( $\gamma_{05} = 0.05$  SD).

Individual student perceptions of all three dimensions of communities of practice are associated with expectations for voting in both countries, with and without controls (see  $\gamma_{10}$  through  $\gamma_{30}$  in Table 4.14). In Australia, a one standard deviation increase in student perceptions of the discourse community leads to an 18 percent of a standard deviation increase in expectations for voting; in the United States, a similar increase in perceptions of the discourse community leads to a 16 percent of a standard deviation increase in expectations for voting. Using the same metric, the effects for collaborative community are 15 percent of a standard deviation and 17 percent of a standard deviation in Australia and the United States, respectively; while the effects for participatory community are 16 percent of a standard deviation in Australia and 14 percent of a standard deviation in the United States.

The fully conditional models for Australia and the United States also indicate that students from higher socioeconomic backgrounds have higher expectations for informed voting compared to students from lower socioeconomic backgrounds. In Australia and the United States, the coefficient is roughly 13 percent of a standard deviation; in the



United States, the coefficient is approximately 19 percent of a standard deviation. In the United States model, the slope for individual student SES varied among schools—that is, the average effect of student SES is larger in some schools and smaller in others.

According to the results in Table 4.14, in the United States, the effects of student SES are higher in schools with higher average perceptions of the school’s collaborative community and higher in schools that enroll more advantaged students. In these schools, the coefficients for student SES are approximately four fifths of a standard deviation ( $0.19 + 0.22 = 0.41$  SD) and one third of a standard deviation ( $0.19 + 0.14 = 0.33$  SD), respectively.

The adjusted variance estimate between schools for expected informed voting is statistically significant only for the United States, suggesting that the intercept model explains most of the variance between schools in expectations for informed voting. The student-level model explains approximately 15 percent of the within-school variance in Australian and 19 percent of the within-school variance in the United States, whereas the school-level model explains approximately 96 percent of the between-school variance in Australian and 84 percent of the between-school variance in the United States. The estimate for the variance in the student SES slope is slightly smaller in the fully conditional model compared to the random-coefficients model—a reduction of approximately one quarter of the variance in the slope.

#### Summary of Findings from the HLM Analysis

The results of the analyses suggest that important, yet subtle, distinctions exist between the association of the various dimensions of communities of practice and civic knowledge, norms of democracy, and expectations for informed voting in Australia and

the United States. The results from the fully unconditional models indicated statistically significant variations between schools in both countries for each measure of civic capacity and each dimension of communities of practice. Moreover, even after controlling for differences between schools and average student SES, there is still variation between schools in students' perceptions of the three communities of practice. These findings provide sufficient justification to explore both student-level and school-level effects for the discourse community, collaborative community, and participatory community.

The results from the random-coefficients models indicate that student SES is associated with each of the measures of civic capacity, but the association only varies across schools in the United States—and, only for civic knowledge and expectations for informed voting. The results from the fully conditional models indicate that both student level and school level perceptions of the communities of practice may help to shape adolescent civic capacities, though the patterns of relationships vary by dimension of communities of practice and measure of civic engagement. The implications of the effect of these differences on the role of communities of practice in the development of adolescent civic capacities will be discussed in chapter 5.

## CHAPTER 5

### Discussion, Implications, and Conclusions

The goal of this study was to investigate whether three dimensions of communities of practice could provide insights into how to strengthen civic engagement among adolescent students in Australia and the United States. An important focus of the study was to examine if each dimension—measured at the student and school levels—was associated with three measures of civic capacity. More specifically, I examined the extent to which students’ perceptions of the discourse community, collaborative community, and participatory community predict students’ civic knowledge, beliefs about norms of democracy, and expectations for future voting.

As noted in Chapter 1, in this study, communities of practice are considered distinct from individual student learning experiences. Therefore, the primary focus of this investigation is on the collective nature of characteristics of the dimensions of communities of practice across the school environment, rather than individual student’s experiences in and beliefs about them.

The chapter begins by presenting the limitations of the research. The limitations are placed upfront because I believe that it is important to consider them within the context of the broader discussion of the study’s findings and implications. In the next sections, I discuss the findings along with possible explanations for the relationship between each dimension of community of practice and civic capacities. These sections also consider the role of socioeconomic status. For the purposes of this discussion, I focus on the results for research questions six and seven. These research questions represent the most comprehensive statistical models associated with the interests of this study.

Next, I provide a discussion of communities of practice as part of educational policy for civic engagement in schools. A discussion of the normative and cultural aspects of schools provides an opportunity to explore implications for fostering the democratic values that underlie the conceptualization of communities of practice used in this study. Also included is a section in which I discuss the feasibility of promoting communities of practice as a way of creating a school environment that both enhances students' capacities for civic engagement and the development of other academic areas. The chapter concludes with an agenda for future research.

#### Limitations of the Research

Although research on the socio-cultural perspective has examined how learning is embedded within social experiences and interactions with other people and the environment, little research has explored its role in the preparation of students for civic engagement. In this study, I have investigated the influence of multiple dimensions of communities of practice to understand how students in Australia and the United States are educated for civic engagement. The findings support the potential utility of dimensions of communities of practice in the development of civic capacities in schools. At the same time, before the implications can be considered, it is necessary to identify issues that may affect interpretation of the work.

First, the findings of this study are limited because the IEA Civic Education Study used student perceptions of behavior, not actual observations within the school context. Therefore students' reports may not accurately reflect the extent to which students actually discuss issues, collaborate on matters, or participate in civic-related experiences. In addition, the behavioral measure for expected informed voting used for this study

measures future adolescent civic engagement, not current behavior. Students in the study likely have some sense of the types of civic engagement activities that are expected of them as members of a democratic society. As such, students may respond with socially expected norms for civic behavior, even though these characteristics may not be part of their school experience.

In addition, student survey responses do not account for future experiences that may affect civic engagement. Students live in environments where their civic and political actions are influenced by family, peers, and social events beyond school. As students transition into young adults, possibly transitioning from novice to competent citizens, their actions and attitudes toward civic engagement can change, suggesting that the current measures may not as accurately predict future beliefs or behaviors. In addition, the information provided by the IEA Civic Education Study do offer an opportunity to explore how the social context in schools influences the development of student capacities for civic engagement, and there is no reason to believe that these foundations for future behaviors are unimportant or inconsequential.

The variables used in this study to tap the three dimensions of communities of practice also suffer from additional forms of measurement error (beyond being perceptions of behaviors). First, this study examined the independent influence of each dimension on civic capacities, though conceptually and empirically these dimensions are certainly related to each other, as they characterize a school's environment. As I noted in chapter four, these dimensions tended to be correlated with each other, especially at the school level (e.g.,  $r = 0.83$  for the discourse community and collaborative community in the United States). Because the IEA Civic Education Study was not designed specifically

to examine the dimensions of communities of practice conceptualized in this study, the variables that I used may not capture the unique attributes of each dimension. At the same time, the IEA Civic Education Study did draw on Lave and Wenger's general conceptualization of communities of practice in designing the student survey, so there is reason to believe that the variables used in this study have some face validity. In addition, the collection of the data from nationally representative samples provides a compensating strength. To more fully understand the independent effects of each dimension of communities of practice on civic outcomes, future research would benefit from more precise measures of each dimension.

Another limitation of the study is the aggregation of data from the student level to the school level. Although this statistical technique provides an accurate measure of the collective perceptions of surveyed students, the data may not fully capture variations in student perceptions within schools (e.g., between classes within schools or across grades). More accurate measures of communities of practice require additional information, including information from teachers and administrators, or information aggregated across students in different classrooms. In addition, the construction of alternative measures that more fully capture a sense of the pervasiveness of discourse, collaboration and participation across the school community would benefit our understanding of the influence of communities of practice on the development of civic capacities. Such a broader perspective on student, teacher, and administrator experiences could provide a more nuanced depiction of the socio-cultural environment in which the development of civic engagement takes place.

As indicated earlier, this study utilized cross-sectional and correlational data to measure civic engagement among adolescents. There is no measure of students' prior capacity for civic engagement or prior experiences in schools. Although this type of study design is typical of most large-scale, nationally representative studies on civic engagement, it only provides information about subjects at a single point in time as opposed to information over an extended period time, such as months or even years. The non-experimental nature of the IEA Civic Education Study does not provide sufficient data to make strong causal claims about relationships, so this limitation should be kept in mind when considering the implications of the study.

#### Relationship of the Discourse Community of Practice and Civic Capacities

The discourse community of practice involves students in meaningful civic learning marked by an open exchange of dialogues and discussions with one another and their teachers, initially in the classroom but also extending to other school activities (Torney-Purta et al., 2006). In the discourse community students interact in positive ways to develop and sustain mutual agreement on common civic concerns.

#### *Student Characteristics*

Overall, students in Australia and the United States who report that they participate in the discourse community are more likely to believe that they will become informed voters. In addition, students in both countries who believe that they have opportunities to engage in the discourse community not only express the values and norms associated with democratic principles, but they also demonstrate higher civic knowledge, compared to students who have less positive perceptions of the discourse community. These findings support one of the assumptions of this study that participation

in the discourse community serves as a bridge for the development of students' capacities of civic engagement.

The discourse community is a consistent predictor of students' civic capacities. Analyses of the association between the discourse community and civic engagement, however, do differ depending on the specific type of civic capacity considered. In both Australia and the United States, the discourse community has its strongest association with students' expectations for informed voting (0.18 SD and 0.16 SD, respectively). At the same time, the discourse community also significantly influences the development of civic knowledge (0.09 SD and 0.08 SD, respectively) and norms of democracy in both countries (0.07 SD and 0.08 SD, respectively), although the strength of these relationships is not as strong as the relationship with expectations for informed voting. These findings of the influence of the discourse community on the development of civic capacities suggest the importance of interactive discourse in fostering student's civic engagement. However, it is also necessary to explore possible reasons for these associations.

One explanation for the association between the discourse community and expectations for informed voting may be the type of issues discussed by students. The specific content of the issues discussed among the students in the IEA Civic Education Study is unknown. In fact, the emphasis of the school curriculum is typically on government institutions and processes, such as political parties and how a bill becomes law, with less attention focused on a broad range of social and political issues. Therefore, even when students indicate that they are encouraged to discuss issues openly develop an opinion about issues, the range of topics discussed may be limited.



Nonetheless, voting, the most common form of political participation, could be the predominant topic discussed among students, especially in Australia where voting is compulsory (recall that the mean for the scale for expectations for voting was approximately one quarter of a SD higher in the analytic sample for Australia and the United States than the average across the twenty-eight countries that participated in the IEA Civic Education Study). In addition, teachers focus on topics with which they are comfortable (Hess, 2005; Torney-Purta et al., 2001). Even if students are not provided sufficient opportunities to discuss a range of complex political and social issues (Hess & Avery, 2008; Kahne et al., 2000), they may be given sufficient opportunities to discuss locally important and controversial issues that reinforce the importance of informed voting, such as problems in the neighborhood that should be brought to the attention of elected officials.

The discourse community was also a predictor of the development of civic knowledge and norms of democracy in both countries. According to Lave and Wenger (1991), social groups are central to understanding, interacting, and making sense of learning opportunities. From this perspective, discussions between individuals about civic issues can facilitate an understanding of abstract concepts and ideas, such as those purportedly tapped by the IEA Civic Education civic knowledge and norms of democracy scales. At the same time, the complexity and depth of the issues discussed, as indicated earlier, are unknown. It is quite possible that the association between the discourse community and the measures of civic capacity would be even stronger if we knew more about the actual pedagogical practices of students' teachers.

The statistically significant associations found between the discourse community and all three capacities for civic engagement provides support for the utility of a socio-cultural approach. The findings indicate that the discourse community in school plays an important role in the development of expectations for informed voting, norms of democracy, and civic knowledge, and they support Torney-Purta and colleagues (2006) extended notion of Lave and Wenger's concept of communities of practice as a learning process through which individuals identify, share, and develop a context for civic learning. The findings also support Torney-Purta and Richardson's (2003) assertion that open discussion and dialogue among students on political and social issues contributes to the development of meaningful civic knowledge. At the same time, participation in the discourse community facilitates students' expectations about future political involvement and the development of democratic values and norms, suggesting that innovative teaching strategies that emphasize student discourse can facilitate the development of adolescent capacities for civic engagement (Carnegie Corporation of New York & Center for Information and Research on Civic Learning, 2003).

The stronger relationship in both Australia and the United States between the discourse community and expectations for informed voting, compared to its association with either civic knowledge or norms of democracy, may indicate that engaging in open discussion may not always result in more challenging and thoughtful exploration of issues. If this is the case, it is crucial that teachers provide student opportunities to move from what may be superficial discussion to in-depth discussion about complex issues. This same observation may be true for collaborative community and the participatory

community, an observation that I will discuss in more detail in subsequent sections of this chapter.

### *School Characteristics*

The absence of contextual effects in both Australia and the United States indicates that the discourse community has no identifiable effect on the development of students' civic capacities at the school level. This means that although individual student's beliefs about their opportunities to participate in the discourse community are associated with individual student's capacities for civic engagement, the beliefs of peers have no significant influence. One possible explanation for this finding is multicollinearity between the school-level measures of communities of practice (as mentioned earlier). A second possibility is that students' opportunities to participate in the discourse community are limited to specific types of teachers or specific types of schools. For example, the relatively low ICCs for all three measures of communities of practice (0.03 to 0.07), though statistically significant, indicate that there is substantial variability within schools in how students experience each dimension. Moreover, it is also important to note that the school discourse community in the United States has a statistically significant relationship with both civic knowledge and norms of democracy before socioeconomic status and school size were considered. The results suggest that schools that enroll students from more economically advantaged households are more likely to provide students with opportunities to participate in positive forms of discourse communities (a finding consistent with the means-as-outcome model for discourse community reported in chapter four). I will discuss the possible confounding effects of socioeconomic status later in this chapter.

## Relationship of the Collaborative Community of Practice and Civic Capacities

The collaborative community is associated with developing the positive bonds necessary for students to enhance their relationships with others in school. This community of practice helps create a safe and cooperative environment based on trust and respect among its members. Underlying these demands, as it is conceptualized in this study, are supportive relationships and positive perceptions of the school environment.

### *Student Characteristics*

Similar to the discourse community, students in Australia and the United States who report that they have opportunities for participation in collaborative communities are more likely to believe that they will become informed voters. In addition, students in the United States who have more positive perceptions of the collaborative community in their school express more positive beliefs about the norms of democracy compared to students who have less positive perceptions of the collaborative community in their school. This association is not evident in Australia. Individual student perceptions of the collaborative community in school, however, are not associated with civic knowledge in either country.

In Australia and the United States, the collaborative community has its strongest association with expectations for informed voting (0.15 SD and 0.17 SD, respectively). The strength of the association between the collaborative community of practice and civic capacities may be influenced by the nature of the relationships between the students who work together in this community. In theory, students who participate in the collaborative community learn to understand people with different ideas and work together with other students in a group to solve school and neighborhood problems. Although we do not know about the specific activities or the make up of students that collaborate in groups,

these activities may foster a stronger sense of collective responsibility and a desire to participate more fully in civic life through activities such as voting. Regardless, individual beliefs about opportunities to collaborate are associated with expectations for informed voting and worthy of additional study.

The strength of the relationship between the collaborative community and norms of democracy in the United States is also statistically significant, though noticeably smaller (0.05 SD). A positive collaborative community fosters a safe environment where students are able to trust one another and try out new ideas and opinions. This type of environment may be especially relevant regarding more abstract, and perhaps more controversial issues, related to political and social issues such as human rights, protesting, freedom of speech, and belonging to diverse associations; successful collaboration may help to foster respect for differences and provide a foundation for a more robust understanding of the values and norms of democracy. Nonetheless, this same relationship was not found for students in Australian schools. This may be because collaboration takes different forms in schools in Australia and the United States.

It is worth highlighting that individual perceptions of the collaborative community were not found to be related to civic knowledge in either Australia or the United States. Because the civic knowledge scale focused on two types of knowledge, content knowledge (e.g., properties of democratic government) and skills in interpretation (e.g., interpreting political cartoons or leaflets) this finding may not be surprising. Participation in collaborative activities is unlikely to influence the development of civic knowledge and skills unless teachers target these outcomes as part of students' collaboration with other students.

### *School Characteristics*

Unlike the discourse community, one contextual effect was found in the association of the collaborative community of practice and capacities for civic engagement, but only in the United States. In these schools both a student's individual perceptions of the collaborative community and their peers' perceptions of the collaborative community matter. Where more students report opportunities to participate in collaborative communities in their schools students also report a more robust understanding of the values and norms associated with democratic principles, compared to schools where these opportunities are not widely available. This contextual relationship between the collaborative community of practice and norms of democracy for schools in the United States is stronger than the student relationship of these measures, indicating that the school environment may play a critical role in developing this form of civic capacity (0.29 SD v. 0.05 SD). There is no corresponding contextual effect, however, in Australia, a finding consistent with the results at the student level.

It seems likely that schools in the United States that promote trust and belonging also enhance students' understanding of the underlying principles of democracy. One explanation for this contextual finding involves the collective commitment that school members may have to fostering a learning environment consistent with democratic practices. This study assumes that the collaborative community of practice reflects opportunities for democratic practice, such as group decisionmaking, understanding and respecting others ideas, and working to solve school and neighborhood problems. When these practices are modeled school-wide they could foster a deeper commitment to and understanding among students of democratic values.

The social organization of groups is a central tenet of communities of practice (Lave and Wenger, 1991; Wenger, 1998). The findings of this study support the more general socio-cultural argument that specific aspects of communities can help to foster positive developmental outcomes, such as expectations for informed voting and a positive understanding of norms of democracy. In the case of norms of democracy, the strength of a collaborative community to promote this outcome depends in part on how widely opportunities for positive forms of collaboration exist. This finding is consistent with previous research on the potentially positive role of school relationships and the importance of creating the conditions for a sense of belonging in school (Croninger & Lee, 2001; Batistich, et al., 1997; Wentzel, 1997). Most importantly, the study extends the current research by supporting the more specific proposition that opportunities to participate in collaborative communities in schools strengthens expectations for voting and beliefs in the norms of democracy (Homana & Barber, 2006; Torney-Purta et al., 2006).

#### Relationship of the Participatory Community of Practice and Civic Capacities

The participatory community of practice emphasizes active involvement in experiences that provide distinct opportunities for students to engage in action and change. In this community of practice students practice the skills and behaviors that are associated with the discourse and collaborative communities and transform them into addressing real problems in their schools, and, potentially, later in their neighborhoods.

#### *Student Characteristics*

Consistent with the finding concerning the discourse and collaborative communities, students in Australia and the United States who describe more positively

the participatory community of practice in their schools have higher expectations to become informed voters. And, students in both countries who have opportunities to engage in the participatory community not only express the values and norms associated with democratic principles, but they also demonstrate higher civic knowledge.

In both Australia and the United States, the participatory community has its strongest association with students' expectations for informed voting (0.16 SD and 0.14 SD, respectively), followed closely by norms of democracy (0.13 SD in both countries), and then civic knowledge (0.05 SD in both countries). In other words, the participatory community has a relationship, similar to the discourse community, with each of the three capacities for civic engagement. These findings support the value of the participatory community in schools as a mechanism to develop students' civic capacities.

The associations between the participatory community and expectations for informed voting and norms of democracy within each country suggest that involving students in structured experiences to solve school problems or accomplish tasks supports the development of not only anticipated civic involvement, but also conceptual notions of the values and norms that are the foundation of democratic life. Although the IEA Civic Education Study does not provide details about the forms of participation in which students were engaged, it is possible that these forms of civic capacity can be fostered through a range of group activities, such as researching and discussing civic problems, participating in school governance, or developing and implementing action plans. When students are engaged in these types of learning opportunities they have multiple and varied ways to understand and practice how their own experiences and views of life can influence not only others in the group, but also how they can influence social and



political problems. In addition, students may develop a clearer sense of civic identity and develop a stronger commitment to being an active participant in a democratic society.

The association between the participatory community and civic knowledge provides further evidence of the connection between civic-learning and civic practice, albeit the connection is weaker. Although the strength of the association with civic knowledge is the lowest in each country, this weaker association might be expected if the forms of participation that students experience are not directly related to civic knowledge and skills tapped by the assessment. Prior research on the influence of experiences such as extra-curricular activities and service-learning and civic knowledge report mixed (Perry and Katuba, 2001) which may reflect that the instructional purposes for these forms of participation vary substantially across activities. This study supports the belief that the participatory community of practice plays a critical role in the development of civic capacities in schools. Based on these findings, this study provides support for communities of practice and the utility of the socio-cultural approach as a way to understand the schools' role in educating for civic engagement.

#### *School Characteristics*

Contextual dimensions of the participatory community are associated with two capacities for civic engagement—expectations for informed voting in Australia and the United States (0.20 SD in both countries), and civic knowledge in Australia (0.38 SD). Although there was a statistically significant contextual effect for civic knowledge in the United States, the effect was reduced dramatically and became non-significant after controlling for differences between schools in the socioeconomic background of students. The implication is that these forms of participatory community are more likely to be

found in schools that enroll students from more economically advantageous backgrounds, particularly in the United States.

The models in this analyses suggest that the participatory community may be most beneficial for students when it occurs in a school setting (in the case of civic knowledge, the contextual effect is seven times the effect for individual perceptions of the participatory community). When schools provide students opportunities to work together to address real school problems or work collectively on activities, they appear to increase the likelihood that students will become active and civically engaged members of society. In both countries, a widely recognized participatory community of practice is associated with higher expectations for voting, whereas in Australia, the prevalence of the participatory community of practice is also associated with higher levels of civic knowledge. This latter finding might reflect differences between the United States and Australia in the instructional purpose of participation, particularly when participation is fostered broadly in a school.

Considering the evidence, this study supports the argument of Torney-Purta and colleagues (2006) that through multiple social practices students learn to interact and develop civic identity. Although the study does not provide evidence that students working together forge a common group identity that then influences the direction and outcomes of civic learning, it does provide some evidence that collective beliefs about the participatory community in schools can be an important predictor of civic outcomes. What is clear, especially given the contextual effects for expectations for voting and civic knowledge, is that when schools embrace the notion of the participatory community of practice, there is a more powerful relations with civic outcomes. As such, the collective support for the participatory

community in school would appear to cultivate a broader and more systematic conception of educating for civic engagement.

### Socioeconomic Status and School Size

The primary intention of this study was to explore the notion of communities of practice in schools and the presumed potential of these communities to contribute to positive civic outcomes. To explore the possibilities of communities of practice as a way to obtain more equitable civic outcomes among students in schools, I also incorporated measures for student and school socioeconomic status and school size in my study.

The study acknowledges the view that schools can be a mechanism for the reproduction of social class and other types of privilege (Bourdieu, 1997; Portes, 1998; Portes & Landolt, 2000). Where students from higher socioeconomic backgrounds (or higher social class) have more, and even higher quality opportunities to develop the capacities for civic engagement, schools are likely to reproduce existing class structures. To address this possibility, the study includes controls for the family background of individual students (student level) and the average family background of students enrolled in schools (school level), as well as school size. The study also sought to determine whether the relationship between individual socioeconomic status and school size and civic outcomes might be moderated by the school-level dimensions of communities of practice.

Overall, the study found a consistent association between individual socioeconomic background and all three measures of civic capacity, ranging from 0.11 SD for norms of democracy in Australia to 0.21 SD for civic knowledge in the United States. Specifically, the study indicates that students from more economically advantaged

backgrounds consistently have higher levels of civic knowledge, the types of values and norms associated with democratic principles, and greater expectations for informed voting. These associations were among the highest for the student-level variables. At the same time, the participatory community of practice had associations roughly equal to or greater than the associations with students' socioeconomic status for norms of democracy and expectations for voting. For all three measures of civic capacities, however, perceptions of specific dimensions of communities of practice had statistically significant relationships even after controlling for family background.

The study also found consistent contextual effects associated with the average family background of students enrolled in schools. Students in schools that enrolled more economically advantaged students also had higher levels of all three measures of civic capacity, beyond what might be expected given their individual family backgrounds. These contextual effects ranged from 0.21 SD for norms of democracy in the United States to 0.56 SD for civic knowledge in the United States. These results, when combined with the results at the student level, provide strong evidence that students from economically advantaged backgrounds develop a stronger foundation for civic capacity in schools. This developmental advantage is the result of advantages associated with both their access to personal resources and school resources.

The study also supports the notion that the relationship between socioeconomic status and civic capacities differs systematically between schools, but only civic knowledge and expectations for informed voting in the United States. In general, students from higher socioeconomic status backgrounds have higher levels of civic knowledge. However, the study also indicates that the effect of socioeconomic status on civic

knowledge is weaker for students in a large school compared to students in a small school. It may be that students with greater resources from home can leverage these resources better in smaller schools, at least with regards to developing each of the forms of civic capacity examined in this study. More importantly, though, for the purposes of this study, there is no indication that school-level perceptions of any of the dimensions of communities of practice moderate the association between socioeconomic status and civic knowledge. This study provides no evidence for the equalizing effects of communities of practice, at least not in terms of the acquisition of civic knowledge.

The association of socioeconomic status and voting is moderated by average socioeconomic status and student participation in the collaborative community of practice. In schools that serve more economically advantaged students, an individual's socioeconomic background is more strongly related to their expectations for informed voting. The same is true in schools where students have more positive beliefs about the school's collaborative community, a relationship that is the opposite of what was proposed in the study. Although it is difficult to explain these relationships, it should be noted that both schools might be thought of as *less* equitable if we assume that a weaker relationship between socioeconomic status and civic outcomes is desirable (Willms, 2003). Given the conceptual framework adopted by this study, these moderating effects are worthy of further investigation.

The measures of socioeconomic status and school size were included to determine whether school effects associated with the communities of practice are independent of school size and the neighborhoods served by the schools. Although these measures were

not the central focus of the study, they do have implications for future work and research in communities of practice.

School size has a minimal influence on the development of adolescent civic capacities in Australia and the United States. More specifically, students in large schools in Australia have greater civic capacities compared to students in smaller schools, although these differences are quite small. In the United States, there is a context control effect for school size suggesting that individual SES has a smaller effect in a large school compared to a small school on the development of students' civic knowledge. One possible explanation could be that large schools are more economically diverse than small schools and this range of diversity may make a student's socioeconomic background less important in shaping his or her civic capacities. Although the contextual effect is small, examining more closely the influence of school size is still worth further investigation.

Socioeconomic status has a clear influence on civic outcomes. In both Australia and the United States, students who come from high socioeconomic backgrounds, or attend high socioeconomic status schools, have advantages in their acquisition of all the civic capacities examined in this study, compared to students from less privileged socioeconomic backgrounds or schools. In addition, the cross-level interaction with informed voting in the United States suggests that a student's individual socioeconomic background plays a stronger role in the development of student civic capacities in high socioeconomic status schools than low socioeconomic status schools.

These results may seem disheartening, suggesting that establishing the types of discourse, collaboration, and participation consistent with communities of practice may

be especially difficult in schools that serve low socioeconomic students. However, the study does provide evidence of the benefits associated with communities of practice, especially with the participatory community in both countries and the collaborative community in the United States. These findings suggest that there is value in the characteristics embedded within communities of practice that may promote greater civic engagement in low socioeconomic status schools. In this sense, communities of practice may provide important support for more meaningful learning, positive development of identity, a sense of safety and belonging, and more positive forms of school and community participation in low socioeconomic schools. Future research should examine more closely how these characteristics of community manifest themselves and shape the development of civic capacities in schools that serve students from both advantaged and disadvantaged neighborhoods.

#### Communities of Practice and Educational Policy for Civic Engagement

The central focus of this study is to understand whether and how communities of practice make a difference in the development of students' civic capacities. Based on the cumulative findings of this study, there is evidence that both student and school characteristics for the three dimensions of communities of practice influence multiple civic capacities. Although the design of this study does not permit strong claims for causality, it does provide some support for examining communities of practice as a potential policy lever for the development of civic capacities in Australian and United States schools.

In both Australia and the United States, student perceptions of the discourse and participatory communities of practice play meaningful roles in the positive development

of civic capacities. The influence of these two communities of practice is greatest with expectations for informed voting, but the significance of their association with all three civic capacities demonstrate that individual student participation in these forms of communities could make a difference. In addition, student perceptions of a school's collaborative community, although less influential, appears to make potentially important contributions for informed voting in both countries and the norms of democracy in the United States. Arguably, student participation in these forms of communities of practice depends on the extent to which these opportunities are available and students are actively encouraged to participate in them. In some schools, students will become involved in communities of practice regardless of the availability. In other schools students may require more incentive to participate. In many cases, participation in communities of practice is likely to depend upon individual teachers and the extent to which teachers create the type of learning environment associated with the dimensions of communities of practice.

Compared to the student level, communities of practice at the school level present a different pattern of influence on the development of civic capacities. The participatory community of practice has an influence on expectations for informed voting across schools within both countries, as well as on civic knowledge in Australian schools. The collaborative community, on the other hand, has an association with norms of democracy but is limited to schools in the United States. There were no school contextual effects associated with the discourse community. However, the absence of additional contextual effects may have been due to multicollinearity between student perceptions aggregated to the school level and the relatively small proportions of variance between schools captured



by the measures of civic capacity. Although there are fewer statistically significant associations for school contextual variables compared to individual student perceptions of communities of practice, the influence of the collective beliefs with civic capacities appears stronger than the influence of individual beliefs. This is evidenced by the association between the participatory community and civic knowledge in Australia and the collaborative community and norms of democracy in the United States. In these examples, all of the students within a school benefit from the collective influence of communities of practice, regardless of their individual perceptions and characteristics. These contextual effects suggest that broadly experienced dimensions of communities of practice may play a powerful role in educating adolescents for civic engagement.

Participation in the types of experiences represented by the dimensions of communities of practice provide opportunities for students to come together to openly discuss civic issues in a safe environment, to understand and work with people who have different ideas about these civic issues, and organize to solve school and neighborhood problems that are relevant and important to them. In other words, communities of practice help to foster the types of knowledge, skills, and attitudes associated with functioning as a contributing member of society. Unfortunately, those students who have the fewest opportunities to participate in communities of practice are also likely to have the lowest levels of civic capacity, at least as measured by more than factual knowledge about government structures and national history. From the perspective of this study, these students will be ill-prepared to understand and address a broad range of political and social problems that they may confront as future citizens.

If the results of this study prove persuasive, administrators and teachers have a critical role to play in ensuring that students are provided the opportunities to participate in communities of practice. In both Australia and the United States, for example, there is a positive effect on civic knowledge when students report opportunities to engage in open discourse and dialogue. Yet, it is critical that these opportunities to participate in the discourse community are more than simply discussing issues openly and or being able to express opinions that are different from the opinions of another student. Teaching that facilitates more focused discussion on controversial issues can help students grapple with the social, political, and cultural forces that underlie these issues so that they are better prepared to understand and address these types of problems in society (Hess & Avery, 2008). In addition, there is support for multiple strategies including debates, dialogues, and discussion on a range of political and social issues to help foster deep inquiry, higher-order thinking, and rigorous questioning (Carnegie Corporation of New York & Center for Information and Research on Civic Learning, 2003). If discourse communities of practice are to promote positive outcomes for youth, administrators and teachers will need to build on these and other works, such as the work of Hess (2008), Westheimer and Kahne (2003), and Torney-Purta and colleagues (2006), each of which suggests that schools utilize new approaches to help students develop their abilities of critical analysis in order to promote action for responsive civic engagement.

The study also indicates the value of engaging in the participatory community of practice. Looking at both countries, students with more positive perceptions of the participatory communities in their schools have higher levels of civic knowledge and express the values associated with norms of democracy. Given that a component of the

civic knowledge test assessed students' skills in interpreting political information and understanding concepts of democracy (Torney-Purta et al., 2001), the findings for Australia in particular support previous research about the inextricable connection between active participation in real-world political and social issues and increased civic capacity in these areas (Billig et al, 2005; Kahne & Sporte, 2008; Melchior, 1999; Torney-Purta et al., 2007). Similar results might be realized in the United States by administrators and teachers who embed meaningful civic instruction in the participatory opportunities provided students. There is also an association between student engagement in the participatory community and expected informed voting both in Australia (where voting is mandatory) and in the United States (where it is not). The presence of contextual effects in both countries suggest that participation in activities such as student government or working together to solve school problems increases student expectations to participate in elections.

There is also evidence that supports administrators and teachers efforts to cultivate opportunities for students to participate in the collaborative communities of practice. Students who learned explicitly to cooperate with others and understand diverse ideas have more positive civic capacities, particularly for expectations for voting in both countries and norms of democracy in the United States. These results suggest that administrators and teachers in both countries may want to consider ways in which to reinforce these experiences for students. A consideration for schools is the extent to which creating widespread opportunities for collaboration may enhance disparities in the development of civic capacities for students from economically advantaged and

disadvantaged family backgrounds. The causes for such disparities may be especially pronounced for students' expectations for informed voting.

It is prudent that schools find ways to promote the creation of communities of practice for civic engagement. I would argue that achieving the greatest impact on the development of students' civic capacities requires a three-pronged approach. First, it is incumbent upon teachers, administrators, and policymakers to not only create the type of school environment that is conducive for communities of practice, but it is also necessary that they find ways to encourage students to participate in these learning opportunities. In this sense, it is important for schools to create an environment that promotes broad and effective participation in the dimensions of communities of practice throughout the school. Second, the value of the combined effects of participation in all communities of practice suggests that schools seriously consider providing a comprehensive range of communities of practice that involve discussion, collaboration, and real-world participation. Given current educational aims, which focus almost exclusively on a narrow range of academic outcomes, this will require refocusing the mission of the school through a set of innovative and agreed upon policies that promote conscious commitment to communities of practice. These policies could focus, for example, on evaluation and possible revision of mission statements; the focus of curriculum and instruction; frequency and quality of professional development; and inclusion of all school members, including students, in the decisionmaking processes. Third, and equally important, is support among members of the school community, parents, students, and educators alike, for securing action around the potential positive values and norms

associated with communities of practice to promote the development of positive civic capacities.

### Normative Implications

This study was guided by an understanding of communities of practice associated with positive normative structures and cultures that shape civic learning in schools. A goal of the study was to begin to identify the potential role of school norms, such as respect, cultural awareness, and acceptance for all members of the school as a model for positive civic engagement. These norms of civic engagement are intended to serve as the foundation for not only the dimensions of communities of practice, but also as values for all aspects of learning and social interaction in the school.

Drawing on the work of Abowitz and Harnish (2006), the norms associated with this study of communities of practice support a positive perspective of schools and society. This perspective is primarily reflected by a liberal notion of democracy where the conception of individual and group rights promotes respect and consideration of the rights of others, with explicit recognition and value to civic pluralism. Based on civic liberalism, the norms advocated for communities of practice allow disagreement on important societal issues. As such, there is acceptance of disagreement around value hierarchies, or how people express their views around societal values equated with issues such as equality and social justice, that foster the potential of communities of practice for civic engagement. In other words, norms that support the democratic process in schools provide the foundation for students to participate in in-depth discussion around controversial issues, work together with diverse members in groups, and solve relevant school and neighborhood problems.

The results of the study provide some support for fostering these democratic norms through the creation of the three dimensions of communities of practice in schools. In the case of the discourse community, the values associated with the normative structures involve addressing conflict around communication with other students. In the case of the collaborative community, the values promoted are mutual trust and respect among students. In the case of the participatory community, these values are put into action as students support governance structures and work together to address school issues. For this learning environment to be successful, it is dependent upon all members of the school community, particularly administrators and teachers, to support communities of practice based on these types of shared norms. In this way, learning among students becomes intertwined with their positive social and cultural interactions, benefiting not only the development of capacities for civic engagement but potentially a range of other cognitive and social outcomes.

#### Moving Forward: Education Policy, Practice, and Communities of Practice

The central question in terms of policy is the feasibility of creating a school environment that embraces communities of practice for the development of civic capacities in the current educational climate in Australia and the United States. From a normative perspective it is also important to consider the balance of values associated with the current academic requirements and values associated with positive civic capacities. In other words, how can schools enhance democratic values and at the same time support both the development of civic engagement and other academic areas?

This study suggests that communities of practice can provide opportunities for embedded learning consistent with its central characteristics—acquisition of socially

constructed meaningful learning, development of individual and group identity, and transition from peripheral to central forms of participation. As an exploratory study, this investigation helps to illuminate how these central characteristics may help to enhance students' civic capacities. Through discourse, for example, civic knowledge becomes transformed—the student becomes capable to move from simple acquisition and reproduction of civic facts to addressing relevant civic problems or predicaments. This active learning process is facilitated by perceptions in the school about the possibilities for open dialogue and discussion related to complex societal issues. In this way, knowledge becomes more meaningful and student and the group identities become intertwined with the civic role and purpose of the community. Healthy disagreement on issues that may otherwise be seen as obstructive in some learning environments are accepted as the school community redefines itself for the betterment of the student, school, and society.

This study also supports the contention of the role of communities of practice in transitioning students from novice to competent citizen. While novice members of a discourse community participate through repetition of isolated facts or simple answers, competent members are capable of thoughtful decisionmaking concerning the context or situation of a social or political problem. Competent citizens also have knowledge that is readily available as blocks of information or conceptual frames that can be retrieved and used to more effectively analyze problems. Communities of practice support students' transition from novice to full citizen by scaffolding or building on current civic knowledge to help students become competent citizens. Although the transition process often involves confrontation of past ideas and experiences, this process helps to ensure

that learning remains dynamic and meaningful. As such, schools can play an active role in revitalizing the civic purpose of education.

Three key policy goals can help to support the use communities of practice for the development of civic capacities in teaching practice. First, consideration of policies that develop and sustain a school environment where teachers and administrators come together on a regular basis to reflect and share their work for the integration of communities of practice for civic engagement into schools would be helpful. An initial step might be providing professional development opportunities where teachers and administrators firmly grasp the “big ideas” associated with Lave and Wenger’s conceptual approach to communities of practice and work together to develop more refined understandings that I have put forward about the discourse, collaborative, and participatory communities. By working together around these concepts, teachers and administrators can understand, practice, and commit to what it means to participate in a community of practice. This work also involves understanding of, agreeing upon, and promoting the values, norms, and processes that are associated communities of practice for safe, democratic, and inclusive school environments.

Second, integrating developmentally responsive communities of practice into curriculum and instruction requires that teachers work across disciplines. Integration of communities of practice for civic engagement into pedagogy could involve the creation of teams of teachers at every grade level who, through common planning time, understand and implement how communities of practice can be used as part of their joint work. This work provides a conceptual or organizing framework for all school members to look at instruction within classrooms and across the school. Administrators and



teachers could play a lead role in promoting the education of youth for civic engagement. If teachers are provided opportunities to work together collaboratively on the purpose and design of communities of practice, they may be able to create a sustainable school environment that supports these ends.

Third, we should expect teachers to be learners and leaders. School and district policies should support efforts associated with the use of communities of practice for the social and cultural transformation of schools. Providing teachers with ongoing and quality professional development around issues central to communities of practice could sustain and reinvigorate the possibilities for creating communities of practice in schools.

Professional development occurs on multiple levels. One aspect of professional development has already been discussed, teachers meeting for planning in study groups. For this type of team work to succeed, teachers require reliable times during the school day to come together as a group to discuss communities of practice, as well as related school goals. Team teaching and block scheduling can help in this process. Other professional opportunities to support the development of communities of practice in schools include cross-school sharing among teachers and administrators and summer institutes. Regardless of the format, moving forward requires an acceptance of the importance of the school environment for learning, and then a collective effort to create environments supportive of the development of civic capacities and academic outcomes.

#### Agenda for Future Research

As in most research, these findings provide opportunities to reflect and refine an agenda for future research. Based on this current study, the proposed future agenda focuses on several options for research that could advance an understanding of

communities of practice and civic engagement both nationally and internationally.

Central to all of these research options is the ultimate goal to transform the educational mission of schools to support not only civic-learning and engagement, but teaching and learning in all subject areas.

This study uses an internationally representative dataset to examine the potential influences of communities of practice on adolescent students' capacities for civic engagement. The advantages of the IEA Civic Education Study provide greater opportunities to detect significant associations and comparisons across countries to learn about the similarities and differences of educating for civic engagement at a cross-national level. At the same time however, small-scale research can build on the findings of this study. Within schools and classrooms there are complex social and cultural interactions that research can explore to help refine our understanding of communities of practice. Future studies can consider observations, focus groups, and interviews with students, teachers and administrators regarding instructional practice, curriculum integration, and teacher and student interactions to assess the potential for communities of practice in schools to promote multiple forms of learning.

At the same time, research that explores the broader normative and cultural structures in schools is crucial. Learning is inextricably linked to values regarding behavior, expectations, attitudes, and actions across various contexts of the school environment, as well as the social processes by which students learn to be part of the school. Research that investigates the normative structure in schools that educate for civic engagement can provide a base of knowledge for healthy and positive communities of practice. In this way, future research can serve to examine the collective ethos of a school

that bonds people together in their work. In this capacity, investigation of the normative and cultural aspects of schools, either through survey designs or interpretive studies, can provide a way to understand the development of communities of practice and how these qualities of schools influence the development of civic engagement.

The scales used in this study support the development of a refined notion of Lave and Wenger's concept of communities of practice as related to the development of civic capacities. Future research should consider more refined measures of the three dimensions of communities of practice used in this study. The scales used assume clear distinctions among the three dimensions of communities of practice but the multicollinearity of items identified in the study is a concern. The scale for the collaborative community of practice, for example, contains items that may not only measure perceptions of collaboration, but also solving problems in the school and community, a possible measure of the participatory community. In future studies, more distinct measures for evaluating all of the dimensions of communities of practice should be developed that take into account the specific nature of these domains of community.

Future studies of communities of practice would also benefit from a number of methodological improvements. This study provides an alternative approach to examining civic development. At the same time, it only begins to capture the full capacity of communities of practice and the underlying normative and cultural structures that support it. Future researchers should refine the conceptualization of the three dimensions of communities of practice especially in terms of the quality and extent to which these communities of practice exist in schools. These conceptualizations would likely grow out of research which helps to measure these attributes. Explicit distinctions between the

quality of discussion, the quality of collaboration, and the quality of participation would be helpful in identifying specific traits that enhance positive outcomes for students.

As noted earlier, the construction of alternative measures that more fully capture a sense of school community would benefit our understanding of the influence of communities of practice on the development of civic capacities. Communities of practice reflect more than simply setting aside a certain amount of time during the school day to discuss civic issues or activities included in a single lesson plan. Rather, it is necessary to construct more elaborate measures that produce a more testable set of questions to determine whether 1) students have experiences that you would expect to lead to more positive civic outcomes and 2) to what degree their collective perceptions concerning ongoing day-to-day interactions actually reflect both an increased sense of positive school community and whether this increased school community results in greater student civic engagement. Future research would benefit from alternative measures of communities of practice that captured the school as a collective, possibly through the use of mixed-methods designs and longitudinal studies, to better understand the pervasiveness of communities of practice in schools and how these aspects of the learning environment are developed and sustained over time.

Another alternative focus of research on communities of practice is the role of technology. Investigations into whether communities of practice can exist and flourish across the internet through technological interfaces provide a new avenue for research. Technology can promote collective action for democratic reforms. Research questions could address issues pertaining to duration and capacity building of community of practice, as well as issues of sustainability when technology is the major platform. Other

research questions could address issues related to the depth of discussion or whether the interface among individuals results in direct civic or political action. This new research could help us understand the role that technology can play in forming relationships and the ways that people come together around issues of civic importance to them.

Research on communities of practice and civic engagement is also encouraged on the role of socioeconomic status and school size. This study only used these measures as controls. The findings, however, suggest that more in-depth analyses of socioeconomic status especially is worthy of exploration within the context of communities of practice. For example, what are the specific ways in which communities of practice manifest themselves in low and high socioeconomic status schools? What are the similarities and differences associated with the effects of student family background in these schools? Similar research would benefit our understanding of communities of practice in small and large schools. Research could also examine communities of practice across schools in other policy-relevant contexts, including urban, suburban and rural areas.

Finally, this research focused on two established democracies. Broadening the agenda to include research on communities of practice in established and emerging democracies would benefit our understanding of educating for civic engagement at a cross-national level. The cultural and normative structures; the political and civic understandings and participation of students; and the various socio-cultural interactions in schools in emerging democracies would likely provide uniquely different perspectives regarding educating for civic engagement through communities of practice. When conducting this type of cross-national research consideration of cultural differences and differences in the definition of central concepts is both crucial and instructive.

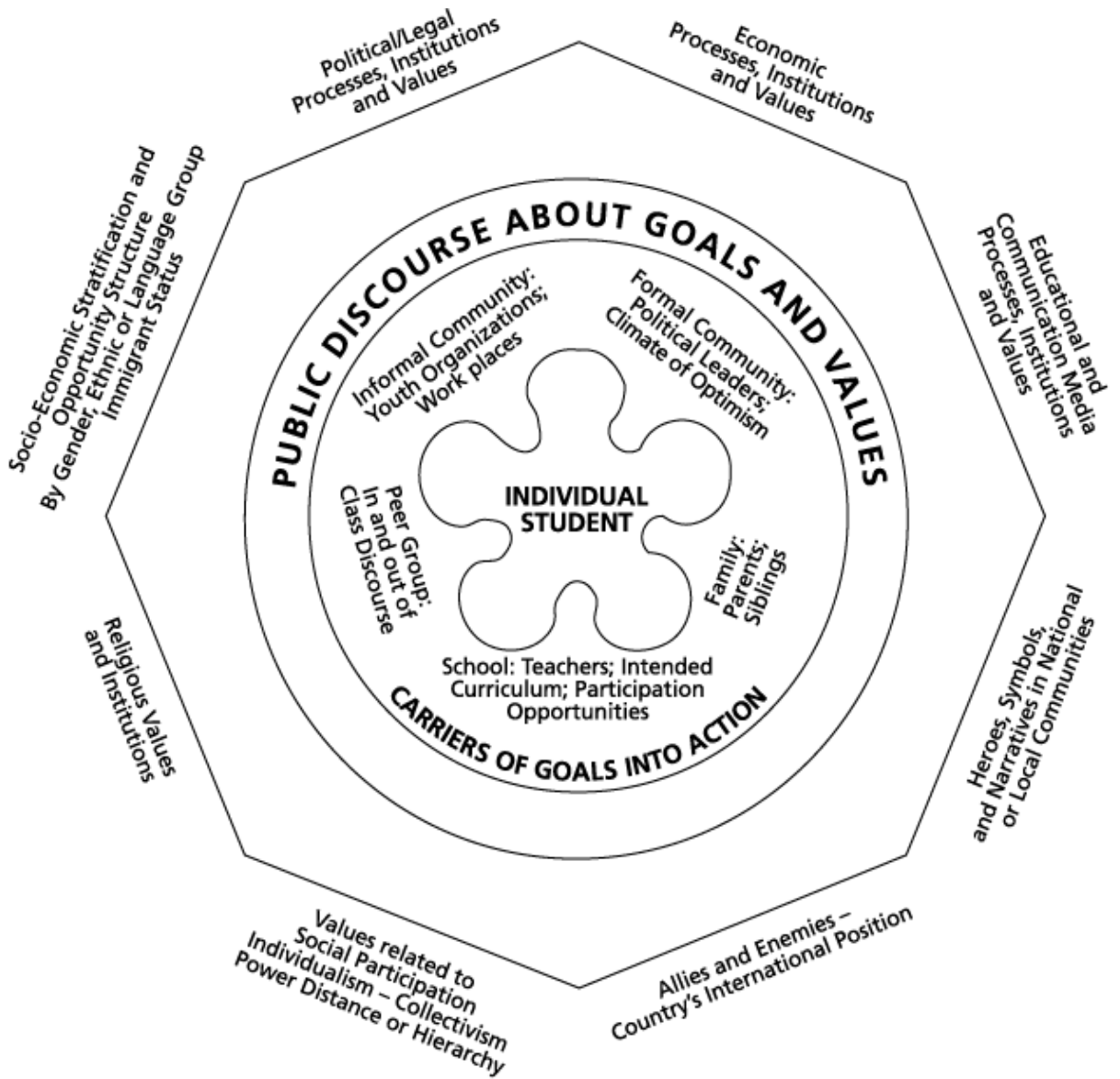
## Conclusion

There are many advantages to developing policies to improve schools through the promotion of communities of practice. However, why is it so difficult to find support for the creation of communities of practice in schools? There are many reasons, ranging from the current educational priorities, to multiple demands placed on educators, to school organizational issues involving control of the school agenda, to simple complacency and resistance to change. However, the ultimate goal of education is to ensure that students are provided multiple, quality, and ongoing opportunities to learn and to achieve what will be required of them to be successful adults, including competencies in civic capacity. This study provides evidence that student participation in the three distinct dimensions of communities of practice influences the development of positive student civic outcomes.

The results of this study offer support for the creation of policies that lead to the development of communities of practice for civic engagement and research projects that further investigate the role of these environments for learning. Through these opportunities a vital segment of the current youth generation could be encouraged to become future civically engaged thinkers and leaders. If educators, policymakers, researchers, and the public want to take much more seriously the responsibility of educating for civic engagement in schools, it is important that they consider supporting policy and research that examines adolescent development through a socio-cultural perspective: one that embodies positive democratic norms and cultural values; embraces the importance of enhancing academic outcomes; and helps students develop from novice to fully engaged citizens capable of addressing the various needs and challenges of the 21<sup>st</sup> century.

APPENDIX A

Model for IEA Civic Education Study



## APPENDIX B

### Summary of Variables Used in the Study

#### **School Level Variables**

*Average discourse community of practice in school.* This IRT scale (CLIM, see Torney-Purta et al, 2001) was derived from six items and aggregated to the school level:

1. Students feel free to disagree openly with their teachers about political and social issues during class;
2. Students are encouraged to make up their own minds about issues;
3. Teachers respect our opinions and encourage us to express them during class;
4. Students feel free to express opinions in class even when their opinions are different from most of the other students
5. Teachers encourage us to discuss political or social issues about which people have different opinions; and
6. Teachers present several sides of an issue when explaining it in class.

Responses to the statements included: 1 = strongly agree, 2 = disagree, 3 = agree, and 4 = strongly agree. For this study, the IRT scale was standardized within each country to mean = 0 and a standard deviation = 1. Missing data was addressed through listwise procedure. Australia  $\alpha = 0.81$ ; United States  $\alpha = 0.82$ .

*Average collaborative community of practice in school.* This scale was derived from an original set of six items and aggregated to the school level. I conducted a principal components analysis and determined that the following three items were most consistent for use as the collaborative community of practice measure:

1. In school I have learned to understand people who have different ideas;
2. In school I have learned to co-operate [work together] in groups with other students; and
3. In school I have learned to contribute to solve problems in the community [society].

Responses to the statements included: 1 = strongly agree, 2 = disagree, 3 = agree, and 4 = strongly agree. The scale was standardized within each country to mean = 0 and a standard deviation = 1. Missing data was addressed through listwise procedure. Australia  $\alpha = 0.71$ ; United States  $\alpha = 0.73$ .

*Average participatory community of practice in school.* This IRT scale (CONF, see Torney-Purta et al, 2001) was derived from four items and aggregated to the school level:

1. Electing student representatives to suggest changes in how the school is run makes schools better;
2. Lots of positive changes happen in this school when students work together;



3. Organizing groups of students to state their opinions could help solve problems in this school; and
4. Students acting together can have more influence on what happens in this school than students acting alone.

Responses to the statements included: 1 = strongly agree, 2 = disagree, 3 = agree, and 4 = strongly agree. For this study, the IRT scale was standardized within each country to mean = 0 and a standard deviation = 1. Missing data was addressed through listwise procedure. Australia  $\alpha = 0.76$ ; United States  $\alpha = 0.80$ .

*Average school size.* This scale was primarily derived from full-time student enrollment in the school survey of the IEA Civic Education Study. Two proxy variables were used to impute values for schools with missing data on full-time student enrollment for this school size measure (full-time student enrollment in the 9<sup>th</sup> grade, and full-time teachers). Each proxy variable was correlated strongly with full-time student enrollment ( $r > .8$ ) making these imputations highly reliable. For the few cases with missing data across all variables, the mean value for school size was used in the imputation. This scale was standardized within each country to a mean = 0 and a standard deviation = 1.

*Average school socioeconomic status.* This scale was derived by aggregating the student level socioeconomic status variable below for use at the school level. It was standardized within each country to a mean = 0 and a standard deviation = 1.

### **Student Level Variables**

*Civic knowledge.* This IRT score was derived from the 38-item test of knowledge and interpretative skills (see Torney-Purta et al., 2001). For this study, the IRT scale was standardized within each country to mean = 0 and a standard deviation = 1. Missing data was addressed through listwise procedure. Australia  $\alpha = 0.90$ ; United States  $\alpha = 0.90$ .

*Norms of democracy.* This IRT score was derived from seven items:

1. When everyone has the right to express their opinions freely;
2. When newspapers are free of all government [state, political] control; when one company owns all the newspapers (reverse coded);
3. When people demand their political and social rights;
4. When people who are critical of the government are forbidden from speaking at public meetings (reverse coded);
5. When citizens have the right to elect political leaders freely;
6. When many different organizations [associations] are available [exist] for people who wish to belong to them;
7. When people peacefully protest against a law they believe to be unjust.

(see Hoskins, Villalba, Van Nijlen, & Barber, 2008).

Possible responses to the statements included: 1 = very bad for democracy, 2 = somewhat bad for democracy, 3 = somewhat good for democracy, 4, very good for democracy. I

will certainly do this. This IRT scale was standardized within each country to mean = 0 and a standard deviation = 1. Missing data was addressed through listwise procedure. Australia  $\alpha = 0.71$ ; United States  $\alpha = 0.70$ .

*Expectations for informed voting.* This IRT score was derived from two items:

1. Vote in national elections;
2. Get information about candidates before voting in an election.

(see Husfeldt, Barber, & Torney-Purta, 2005).

Possible responses to the statements included: 1 = I will certainly not do this, 2 = I will probably not do this, 3) I will probably do this, and 4) I will certainly do this. This IRT scale was standardized within each country to mean = 0 and a standard deviation = 1. Missing data was addressed through listwise procedure. Australia  $\alpha = 0.70$ ; United States  $\alpha = 0.79$ .

*Discourse community of practice in school.* This IRT scale (CLIM, see Torney-Purta et al, 2001) was derived from six items:

1. Students feel free to disagree openly with their teachers about political and social issues during class;
2. Students are encouraged to make up their own minds about issues;
3. Teachers respect our opinions and encourage us to express them during class;
4. Students feel free to express opinions in class even when their opinions are different from most of the other students
5. Teachers encourage us to discuss political or social issues about which people have different opinions; and
6. Teachers present several sides of an issue when explaining it in class.

Responses to the statements included: 1 = strongly agree, 2 = disagree, 3 = agree, and 4 = strongly agree. For this study, the IRT scale was standardized within each country to mean = 0 and a standard deviation = 1. Missing data was addressed through listwise procedure. Australia  $\alpha = 0.81$ ; United States  $\alpha = 0.82$ .

*Collaborative community of practice in school.* This scale was derived from an original set of six items. I conducted a principal components analysis and determined that the following three items were most consistent for use as the collaborative community of practice measure:

1. In school I have learned to understand people who have different ideas;
2. In school I have learned to co-operate [work together] in groups with other students; and
3. In school I have learned to contribute to solve problems in the community [society].

Responses to the statements included: 1 = strongly agree, 2 = disagree, 3 = agree, and 4 = strongly agree. The scale was standardized within each country to mean = 0 and a standard deviation = 1. Missing data was addressed through listwise procedure. Australia  $\alpha = 0.71$ ; United States  $\alpha = 0.73$ .

*Participatory community of practice in school.* This IRT scale (CONF, see Torney-Purta et al, 2001) was derived from four items:

1. Electing student representatives to suggest changes in how the school is run makes schools better;
2. Lots of positive changes happen in this school when students work together;
3. Organizing groups of students to state their opinions could help solve problems in this school; and
4. Students acting together can have more influence on what happens in this school than students acting alone.

Responses to the statements included: 1 = strongly agree, 2 = disagree, 3 = agree, and 4 = strongly agree. For this study, the IRT scale was standardized within each country to mean = 0 and a standard deviation = 1. Missing data was addressed through listwise procedure. Australia  $\alpha = 0.76$ ; United States  $\alpha = 0.80$ .

*Student socioeconomic status.* This composite scale was derived from 2 items:

1. Average parental education; and
2. The number of books in a student's home. Composite scale will be standardized within each country to mean = 0 and a standard deviation = 1.

Missing data was addressed by imputation of the mean value. This scale was standardized within each country to mean = 0 and a standard deviation = 1.

APPENDIX C

*Variance Change in Civic Capacities Explained by Fully-Conditional Model*

	<b>Australia</b>				<b>United States</b>			
	FUM	Level 1	FCM	Explained	FUM	Level 1	FCM	Explained
<b>Civic Knowledge</b>								
Intercept, $u_0$	0.20	-	0.09	0.54	0.28	-	0.07	0.74
SES slope, $u_4$	-	-	-	-	-	0.01	0.01	0.03
Level-1, r	0.80	-	0.75	0.06	0.74	-	0.68	0.08
<b>Concepts of Democracy</b>								
Intercept, $u_0$	0.08	-	0.04	0.55	0.10	-	0.04	0.64
SES slope, $u_4$	-	-	-	-	-	-	-	-
Level-1, r	0.92	-	0.88	0.04	0.91	-	0.84	0.07
<b>Expectations for Informed Voting</b>								
Intercept, $u_0$	0.05	-	0.00*	0.96	0.08	-	0.01	0.84
SES slope, $u_4$	-	-	-	-	-	0.01	0.01	0.27
Level-1, r	0.95	-	0.80	0.15	0.92	-	0.74	0.19

Variance change for civic knowledge and expectations for informed voting reflects slope significance in only the United States.

\*. Coefficient equals 0.00196

## References

- Abowitz, K. K., & Harnish, J. (2006). Contemporary discourse of citizenship. *Review of Educational Research*, 76(4), 653-690.
- Anderman, E. M., & Maehr, M. L. (1994). Motivation and schooling in the middle grades. *Review of Educational Research*, 64(2), 287-309.
- Australian Bureau of Statistics (2004). *Measures of Australia's Progress, 2004* (ABS Publication No.1370.0). Canberra, Australia: Australian Bureau of Statistics.
- Retrieved from  
<http://www.abs.gov.au/AUSSTATS/abs@nsf/Previousproducts/A5F91A7BB33A9903CA256E7D00002653?opendocument>.
- Baldi, S., Perie, M., Skidmore, D., Greenberg, E., & Hahn, C. (Eds.). (2001). *What democracy means to ninth graders: U.S. results from the international IEA Civic Education Study*. Washington, D.C.: U.S. National Center for Educational Statistics.
- Battistich, V., Solomon, D., & Delucchi, K. (1993). Interaction processes and student outcomes in cooperative learning groups. *The Elementary School Journal*, 94(1), 19-32.
- Battistich, V., Solomon, D., Watson, M., & Schaps, E. (1997). Caring school communities. *Educational Psychologist*, 32(3), 137-151.
- Beck, P. A., & Jennings, M. K., (1982). Pathways to participation. *The American Political Science Review*, 76, 94-108.
- Beetham, D. (1994). *Defining and measuring democracy*. London, England: Sage Publications.

- Billig, S., & Conrad, J. (1997). *An evaluation of the New Hampshire service-learning and educational reform project*. Denver, CO: RMC Research.
- Billig, S., Root, S., & Jesse, D. (2005). *The impact of participation in service-learning on high school students' civic engagement* (Working Paper No. 33). College Park, MD: University of Maryland, Center for Information and Research on Civic Learning and Engagement.
- Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste*. Cambridge, MA: Harvard University Press.
- Bryk, A. S., & Driscoll, M. E. (1988). *The high school as community: Contextual influences and consequences for students and teachers*. Madison, WI: National Center on Effective Secondary Schools, University of Wisconsin.
- Bryk, A. S., Lee, V. E., & Holland, P. B. (1993). *Catholic schools and the common good*. Cambridge, MA: Harvard University Press.
- Buckley, M. A., Storino, M., & Sebastiani, A. M. (2003, August). *The impact of school climate: Variation by ethnicity and gender*. Paper presented at the Annual Conference of the American Psychological Association, Toronto, Ontario.
- Calderwood, P. E. (2000). *Learning community: Finding common ground in difference*. New York, NY: Teachers College Press.
- Callan, E. (1994). *Creating citizens: Political education and liberal democracy*. Oxford, England: Oxford University Press.
- Campbell, D. (2006). Sticking together: Classroom diversity and civic education. *American Politics Research*, 20(10), 1-22.

- Carnegie Corporation of New York & Center for Information and Research on Civic Learning and Education. (2003). *The civic mission of schools*. New York, NY: Carnegie Corporation of New York.
- Center for Information and Research on Civic Learning and Engagement (2008). *Youth turnout rate rises by at least 53%*. Medford, MA: Center for Information and Research on Civic Learning and Engagement, Tufts University.
- Chudowsky, N., & Chudowsky, V. (2005). *From the capital to the classroom: Year 3 of the No Child Left Behind Act*. Washington, DC: Center for Education Policy.
- Civics Expert Group (1994). *Whereas the people... civics and citizenship education*. Canberra, Australia: Australian Government Publication Service.
- Cleaver, E., Ireland, E., Kerr, D., & Lopes, J. (2004). *Citizenship longitudinal study: Second cross-sectional survey 2004: Listening to young people in England*. Berkshire, England: National Foundation for Educational Research.
- Cohen, J. (1977). *Statistical power analysis and the behavioral sciences* (2<sup>nd</sup> ed.). New York, NY: Academic Press.
- Condon, M. (2007, August). *Practice makes participants: Developmental roots of political engagement*. Paper presented at the Annual Meeting of the American Political Science Association, Chicago, Illinois.
- Conover, P. J., Searing, D. D., & Crewe, I. M. (2002). The deliberative potential of political discussion. *British Journal of Political Science*, 32, 21-62.
- Constitutional Rights Foundation (2000). *Fostering civic responsibility*. Los Angeles, CA: Constitutional Rights Foundation. Retrieved: [http://www.crf-usa.org/service-learning-network/8\\_1-fostering-civic-responsibility.html](http://www.crf-usa.org/service-learning-network/8_1-fostering-civic-responsibility.html).

- Croninger, R. G., & Lee, V. E. (2001). Social capital and dropping out of high school: Benefits to at-risk students of teachers' support and guidance. *Teachers College Record*, 103(4), 548-581.
- Dalton, R. J. (1999). Political support in advance industrialized democracies. In P. Norris (Ed.), *Critical citizens: Global support for democratic governance* (pp. 55-77). Oxford, England: Oxford University Press.
- Davis, S. Darling-Hammond, L., LaPointe, M., & Meyerson, D. (2005). *School leadership study: Developing successful principals*. Stanford, CA: Stanford Educational Leadership Institute.
- Deal, T. E. & Peterson, K. D. (1999). *Shaping school culture*. San Francisco: Jossey-Bass.
- Dejaeghere, J. G. (2002). *Citizenship and citizenship education in Australia: New meanings in an era of globalization* (Doctoral dissertation, University of Minnesota). Available from ProQuest Dissertations & Theses database. (Publication No. ATT 3047622)
- Dejaeghere J. G., & Tudball, L. (2007). Looking back, looking forward: Critical citizenship as a way ahead for civics and citizenship education in Australia. In Torney-Purta, J. (Ed.), *Citizenship teaching and learning: Special issue: Reflections on the IEA Civic Education Study (1995-2005)*, (pp. 40-57). Canterbury, England: citizEd.
- Delli Carpini, M., & Keeter, S. (1996). *What Americans know about politics and why it matters*. New Haven, CT: Yale University Press.
- Department of Education, Employment and Workplace Relations. (2008). *School education summary*. Canberra, Australia: Department of Education, Employment



- and Workplace Relations. Retrieved from  
[http://www.dest.gov.au/sectors/school\\_education](http://www.dest.gov.au/sectors/school_education).
- Department of Foreign Affairs and Trade. (2008). *About Australia*. Canberra, Australia:  
Department of Foreign Affairs and Trade. Retrieved from  
<http://www.dfat.gov.au/geo/australia>.
- Dewey, J. (1916) *Democracy and Education. An introduction to the philosophy of education*. New York, NY: Free Press.
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147-160.
- Drew, S., & Magnusson, P. (2004). Will youth rock the vote this year? *Business Week* 3870 (70). Retrieved from <http://web.lexis-nexis.com/universe.com>.
- Eccles, J. S., Wigfield, A., Midgley, C., Reuman, D., MacIver, D., & Feldlaufer, H. (1993). Negative effects of traditional middle schools on students' motivation. *The Elementary School Journal*. 93(5), 553-574.
- Enslin, P. (2000). Education and democratic citizenship: In defence of cosmopolitanism. In M. Leicester, C. Modgil, & S. Modgil. (Eds.), *Politics, education and citizenship* (pp. 149-150). New York, NY: Falmer Press.
- Finnan, C., Schnepel, K., & Anderson, L. (2003). Powerful learning environments: The critical link between school and classroom cultures. *Journal of Education for Students Placed At Risk*, 8(4), 391-418.
- Flanagan, C. A., Syvertson, A. K., & Stout, M. D. (2006). *Civic measurement models: Tapping adolescents' civic engagement* (Working Paper No. 55). College Park:

- MD: The Center for Information and Research on Civic Learning and Engagement, University of Maryland.
- Galston, W. A. (2001). Political knowledge, political engagement, and civic education. *Annual Reviews of Political Science*, 4, 217-234.
- Gifford, C., Watt, P., Clark, W., & Koster, S. (2005) Negotiating participation and power in a school setting: The implementation of active citizenship within the undergraduate sociology curriculum. *Learning and Teaching in the Social Sciences*, 2(3), 175-190.
- Glanville, J. (1999). Political socialization or selection? Adolescent extracurricular participation and political activity in early adulthood. *Social Science Quarterly*, 80(2), 270-290.
- Goodenow, C. (1992). *School motivation, engagement and sense of belonging among urban adolescent students*. Retrieved from ERIC database. (ED349364)
- Griffith, J. (2000). School climate as group evaluation and group consensus: Student and parent perceptions of the elementary school environment. *The Elementary School Journal*. 101(1), 35-61.
- Gutman, A. (1999). *Democratic Education*. Princeton, NJ: Princeton University Press.
- Hahn, C. L. (1998). *Becoming political: Comparative perspectives on citizenship education*. Albany, NY: State University of New York Press.
- Hahn, C. L. (1999a). Challenges to civic education in the United States. In J. Torney-Purta, J. Schwille, & J. Amadeo (Eds.), *Civic education across countries: Twenty-four national case studies from the IEA Civic Education Project* (pp.583-607). Amsterdam: IEA.

- Hahn, C. L. (1999b). Citizenship education: An empirical study of policy, practices and outcomes. *Oxford Review of Education*, 25(1-2), 231-250.
- Hahn, C. L. (2005). U.S. Students' becoming citizens: Insights from the IEA Civic Education Study. In S. Wilde (Ed.), *Political and citizenship education* (pp.13-27). Oxford, England: Symposium Books.
- Hanks, M. (1981). Youth, voluntary associations and political socialization. *Social Forces*, 60(1), 211-223.
- Hanks, M., & Eckland, B. E. (1978). Adult voluntary associations and adolescent socialization. *The Sociological Quarterly* 19, 481-490.
- Haste, H., & Hogan, A. (2006). Beyond conventional civic participation, beyond the moral-political divide: young people and contemporary debates about citizenship. *Journal of Moral Education*, 35(4), 473-493.
- Hess, D. (2004). Discussion in social studies: Is it worth the trouble? *Social Education*, 68(2), 151-155.
- Hess, D. (2005). How do teachers' political views influence teaching about controversial issues? *Social Education*, 69(1), 47-48.
- Held, D. (2006). *Models of democracy* (3<sup>rd</sup> edition). Palo Alto, CA: Stanford University Press.
- Hess, D. (2008). Democratic education to reduce the divide. *Social Education*, 72(7), 373-376.
- Hess, D., & Avery, P. G. (2008). Discussion of controversial issues as a form and goal of democratic education. In J. Arthur, I. Davies, & C. Hahn (Eds.), *The SAGE*

*Handbook of Education for Citizenship and Democracy* (pp. 506-518). London, England: Sage Publications.

Hess D., & Posselt, J. (2002). How high school students experience and learn from the discussion of controversial public issues. *Journal of Curriculum and Supervision*, 17(4), 283-314.

Homana, G. (2007, June). *Service-Learning and School Climate: Implications for Citizenship Outcomes Across Racial Groups in the United States*. Paper presented at Seminar for Emerging Scholars in K–12 Service-Learning Research, College Park, Maryland.

Homana, G., & Barber, C. (2006). School climate for citizenship education: A comparative study of England and the United States. *The Second IEA International Research Conference: Proceedings of the IRC-2006, Volume 2: CivEd, PIRLS, and SITES* (pp. 115-130). Amsterdam: IEA.

Homana, G., & Greene, J. (2006). A comparative study of Australia and the United States: Student government and voluntary organizations. *Proceedings of the IEA International Research Conference-2006, Vol. 2. CivEd, Pirls, and SITES* (pp. 145-155). Amsterdam: IEA.

Homana, G., Barber, C., & Torney-Purta, J. (2005). *School citizenship education climate assessment*. Denver, CO: National Center for Learning and Citizenship, Education Commission of the States.

Hoskins, B., Villalba, E., Van Nijlen, D., & Barber, C. (2008). Measuring civic competencies in Europe: A composite indicator based on IEA Civic Education

- Study 1999 for 14-year-olds in school. *JRC Scientific and Technical Reports*.  
Luxembourg: Office for Official Publications of European Communities.
- Hoy, W. K., & Feldman, J. A. (1999). Organizational health profiles for high schools. In H.J. Freiberg (Ed.), *School climate: Measuring, improving and sustaining healthy learning environments* (pp. 84-102). London, England: Falmer Press.
- Husfeldt, V., Barber, C., & Torney-Purta, J. (2005). Students' social attitudes and expected political participation: New scales in the enhanced database of the IEA Civic Education Study. College Park, MD: CEDARS.
- Husfeldt, V., & Nikolova, R. (2003). Students' concepts of democracy. *European Educational Research Journal*, 2(2), 396-409.
- Ireland, E., Kerr, D., Lopes, J., Nelson, J., & Cleaver, E. (2006) *Active citizenship and young people: Opportunities, experiences and challenges in and beyond school. Citizenship education longitudinal study: Fourth annual report*. Berkshire, England: National Foundation for Educational Research.
- Kahne, J., & Middaugh, E. (2008). *Democracy for some: The civic opportunity gap in high school* (Working Paper No. 59). College Park, MD: The Center for Information and Research on Civic Learning and Engagement.
- Kahne, J., & Sporte, S. (2008). Developing Citizens: The Impact of Civic Learning Opportunities on Students' Commitment to Civic Participation. *American Educational Research Journal*, 45(3), 738-766.
- Kahne, J., Rodriguez, M., Smith, B., & Thiede, K. (2000). Developing citizens for democracy? Assessing opportunities to learn in Chicago's social studies classrooms. *Theory and Research in Social Education*, 28(3), 311-338.

- Kennedy, K. J. (2008). More civics, less democracy: Competing discourses for civics and citizenship education in Australia. In D. Grossman, W.O. Lee, & K.J. Kennedy (Eds.), *Citizenship curriculum in Asia and the Pacific* (pp. 181-195). Hong Kong, China: Center Education Research Center.
- Kennedy, K. J., & Mellor, S. (2006). Australian students' civic attitudes as indicators of support for social capital: Learning outcomes for the future. *Educational Psychology, 26*(2), 251-271.
- Kerr, D., Ireland, E., Lopes, J., Craig, R., & Cleaver, E. (2004). *Citizenship education longitudinal study: Second annual report: First longitudinal study*. Berkshire, England: National Foundation for Educational Research.
- Ketter, S., Zukin, C., Andolina, M., & Jenkins, K. (2002). *The civic and political health of the nation*. College Park: MD: The Center for Information and Research on Civic Learning and Engagement, University of Maryland.
- Klingemann, H. D. (1999). Mapping political support in the 1990's: A global analysis. In P. Norris (Ed.), *Critical citizens: global support for democratic governance* (pp. 31-56). Oxford, England: Oxford University Press.
- Krampen, G. (2000). Transition of adolescent political action orientations to voting behavior in early adulthood in view of a social-cognitive action theory model of personality. *Political Psychology, 21*(2), 277-297.
- Laosa, L. (1989). *Psychological stress, coping, and the development of the Hispanic immigrant child*. Princeton, NJ: Educational Testing Service.
- Lave, J., & Wenger, E. (1991). *Situated Learning. Legitimate peripheral participation*, Cambridge, England: University of Cambridge Press.

- Lay, J. C. (2007). Smaller isn't always better: School size and school participation among young people. *Social Science Quarterly*, 88(3), 790-815.
- Levine, P. (2007). *The future of democracy: Developing the next generation of American citizens*. Medford, MA: Tufts University Press.
- Levinson, B. A. U., & Brantmeier, E. J. (2006). Secondary schools and communities of practice for democratic civic education: Challenges of authority and authenticity. *Theory and Research in Social Education*, 34(3), 324-346.
- Liou, L. M. (2003, April). *The effect of "We the people...project citizen" on the civic skills and dispositions of Taiwanese adolescent students*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, Illinois.
- Loesch-Griffin, D., Petrides, L. A., & Pratt, C. (1995). *A comprehensive study of project YES—rethinking classrooms and community: Service-learning as educational reform*. San Francisco, CA: East Bay Conservation Corps.
- Lopez, M., & Levine, P., (2006). *The 2006 civic and political health of the nation*. College Park: MD: The Center for Information and Research on Civic Learning and Engagement, University of Maryland. Retrieved <http://www.civicyouth.org>.
- Malen, B., & Knapp, M. (1997). Rethinking the multiple perspectives approach to education policy analysis: Implications for policy-practice connections. *Journal of Education Policy*, 12(5), 419-445.
- March, J. G., & Olsen, J. P. (1989). *Rediscovering institutions: The organizational basis of politics*. New York, NY: The Free Press.

- Marzano, R. J., Waters, T., & McNulty, B. A. (2005). *School leadership that works: From research to results*. Alexandria, VA: Association for Supervision and Curriculum Development.
- McAllister, I. (1998). Civic education and political knowledge in Australia. *Australian Journal of Political Science*, 33(1), 7-23.
- McLaughlin, M. W., & Talbert, J. E. (2001). *Professional communities and the work of high school teaching*. Chicago, IL: University of Chicago Press.
- McMurrer, J. (2006). *Choices, changes, and challenges: Curriculum and instruction in the No Child Left Behind era*. Washington, DC: Center for Education Policy.
- Melchior, A. (1999). *Summary report: national evaluation of Learn and Serve America*. Waltham, MA: Center for Human Resources, Brandeis University.
- Mellor, S., Ainley J., Fraillon, J., & Wernert, N. (2006). *National assessment program: civics and citizenship years 6 and 10 report 2004*. Carlton South, Australia: Ministerial Council on Education, Employment, Training and Youth Affairs.
- Mellor, S., Kennedy, K., & Greenwood, L. (2002). *Citizenship and democracy – Australian student's knowledge and beliefs*. Melbourne, Australia: Australian Council for Educational Research.
- Mellor, S., Kennedy, K., & Greenwood, L. (2001). *Citizenship and democracy: Students' knowledge and beliefs – Australian fourteen year olds and the IEA civic education study*. Canberra, Australia: Department and Education, Training and Youth Affairs.
- Menezes, I., & Campos, B. (1997). The process of value-meaning construction: A cross section study. *European Journal of Psychology*, 27, 55-73.



- Meyer, J., & Rowan, B. (1977). Institutional organizations: Formal structures as myth and ceremony. *American Journal of Sociology*, 83, 340-363.
- Mitra, D. (2004). The significance of students: Can increasing “student voice” in schools lead to gains in youth development? *Teachers College Record*, 106(4), 651-688.
- Moos, R. H. (1979). *Evaluating educational environments: Procedures, measures, findings, and policy implications*. San Francisco, CA: Jossey-Bass.
- National Aboriginal & Torres Strait Islander Website. (2008). *Teaching and learning of indigenous learners*. Canberra, Australia: Department of Education, Employment and Workplace Relations. Retrieved from <http://www.natsiew.edu.au/resourceseducation.aspx?xcid=127>.
- National Center for Learning and Citizenship. (2008). *State policies: Citizenship education*. Denver, CO: Education Commission of the States. Retrieved from <http://mb2.ecs.org/reports/Report.aspx?id=114>.
- National Council for the Social Studies. (2008). *Expectation of excellence: Curriculum standards for social studies: Draft revision*. Silver Spring, MD: National Council for the Social Studies.
- Niemi, R. G., & Junn, J. (1998). *Civic education: What makes students learn*. New Haven, CT: Yale University Press.
- Nystrand, M., Gamoran, A., & Caronaro, W. (1998). *Toward ecology of learning: The case of classroom discourse and its effects on writing in high school English and social studies*. Albany, NY: Center on English Learning and Achievement.
- Office of the Prime Minister. (2008, January 30). *First steps towards a national curriculum* [Media release]. Retrieved from <http://www.pm.gov.au/node/5971>.

- Parliament of Australia. (2008). *Parliament an overview*. Canberra, Australia: Parliamentary Education Office. Retrieved from <http://www.aph.gov.au/PARL.HTM>.
- Perry, J., & Katula, M. C. (2001). Does service affect citizenship? *Administration and Society*, 33, 30-333.
- Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology*, 24, 1-24.
- Portes, A., & Landolt, P. (2000) Social capital: Promises and pitfalls of its role in development. *Journal of Latin American Studies*, 32, 529-547.
- Print, M. (2008). Education for democratic citizenship in Australia. In J. Arthur, I. Davies, & C. Hahn (Eds.), *The SAGE Handbook of Education for Citizenship and Democracy* (pp. 95-108). London, England: Sage Publications.
- Print, M., Kennedy, K., & Hughes, J. (1999). Reconstructing civic and citizenship education in Australia. In J. Torney-Purta, J. Schwille, & J. Amadeo (Eds.), *Civic education across countries: Twenty-four national case studies from the IEA Civic Education Project* (pp. 37-59). Amsterdam: IEA.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods, second edition*. Thousand Oaks, CA: Sage Publications.
- Rentner, D.S. (2007). *From the capital to the classroom: Year 4 of the No Child Left Behind Act*. Washington, DC: Center for Education Policy.
- Retallick, J., Cocklin, B., & Coombe, K. (1999). *Learning communities in education*. London, England: Routledge.
- Richardson, W.K. (2003). *Connecting political discussion to civic engagement: The*

- role of civic knowledge, efficacy, and context for adolescents* (Doctoral Dissertation, University of Maryland). Retrieved from <http://www.lib.umd.edu/drum/>.
- Richardson, W. K., & Torney-Purta, J. (2008). Connections between concepts of democracy, citizenship engagement and schooling for 14-year-olds across six countries. In B. C. Rubin & J. M. Giarelli (Eds.), *Civic education for diverse citizens in global times* (pp. 79-104). New York, NY: Taylor & Francis.
- Rogoff, B. (1984). Introduction: Thinking and learning in social context. In B. Rogoff, & J. Lave (Eds.), *Everyday cognition: Its development in social context* (pp. 1-8). Cambridge, MA: Harvard University Press.
- Ryan, A. M., & Patrick, H. (2001). The classroom social environment and changes in adolescents' motivation and engagement during middles school. *American Educational Research Journal*. 38(2), 437-460.
- Schwille, J., & Amadeo, J. (2002). The paradoxical situation of civic education in school: Ubiquitous and yet elusive. In G. Steiner-Khamsi, J. Torney-Purta, & J. Schwille (Eds.), *New paradigms and recurring paradoxes in education for citizenship* (pp. 105-136 ). Oxford: Elsevier Press.
- Search Institute, The. (2003). Boosting student achievement: New research on the power of developmental assets. Retrieved from <http://www.search-institute.org/research/Insights/IE-10-03-Achievement.pdf>.
- Search Institute, The. (2000). 40 developmental assets. Retrieved from <http://www.search-institute.org/assets/forty.html>.

- Sigel, R. S., & Hoskin, M. B. (1981). *The political involvement of adolescents*. New Brunswick, NJ: Rutgers University Press.
- Simon, C. A., & Wang, C. (2002). The impact of AmeriCorps service on volunteer participants: Results from a two-year study in four western states. *Administration and Society*, 34(5), 522-540.
- Smith, E. S. (1999). The effects of investments in the social capital of youth on political and civic behavior in young adulthood: A longitudinal analysis. *Political Psychology*, 20(3), 553-580.
- Solomon, D., Watson, M., Battistich, V., Schaps, E., & Delucchi, K. (1992). Creating a caring community: Educational practices that promote children's prosocial development. In F. K. Oser, A. Dick & J. L. Patry (Eds.), *Effective and responsible teaching: the new synthesis* (pp. 383-396). San Francisco, CA: Jossey-Bass.
- Spillane, J. P., & Diamond, J. B. (2007). *Distributive leadership in practice*. New York: Teachers College.
- Spillane, J. P., Halverson, R., & Diamond, J. B. (2001). Investigating school leadership practice: A distributive approach. *Educational Researcher*, 30(3), 23-28.
- Stephens, L. (1995). *The complete guide to learning through community service, grades K-9*. Boston, MA: Allyn and Bacon.
- Theokas, C., & Lerner, R. M. (2006). Observed ecological assets in families, schools, and neighborhoods: Conceptualization, measurement, and relations with positive and negative developmental outcomes. *Applied Developmental Science*, 10(2), 61-74.

- Torney, J. V., Oppenheim, A. N., & Farnen, R. F. (1975). *Civic education in ten countries: An empirical study*. New York, NY: John Wiley and Sons.
- Torney-Purta, J. (1990). From attitudes and knowledge to schemata: Expanding the outcomes of political socialization research. In O. Ichilov (Ed.), *Political socialization, citizenship education, and democracy*. (pp. 98-115). New York, NY: Teachers College Press.
- Torney-Purta, J. (1992). Cognitive representations of the political system in adolescents: The continuum from pre-novice to expert. In H. Haste & J. Torney-Purta (Eds.), *The development of political understanding: A new perspective* (pp. 11-25). San Francisco, CA: Jossey-Bass.
- Torney-Purta, J. (1995). Psychological theory as a basis for political socialization research. *Perspectives on Political Science*, 24(1), 23-33.
- Torney-Purta, J. (2002). The school's role in developing civic engagement: A study of adolescents in twenty-eight countries. *Applied Developmental Science*, 6(4), 203-212.
- Torney-Purta, J., Amadeo, J., & Richardson, W. K. (2007). Civic service among youth in Chile, Denmark, England, and the United States. In A. M. McBride & M. Sherraden (Eds.), *Civic service worldwide: Impacts and inquiry* (pp. 95 -132). New York, NY: M. E. Sharpe.
- Torney-Purta, J, Barber, C., & Wilkenfeld, B. (2007). Latino adolescents' civic development in the United States: Research results for the IEA civic education study. *Journal of Youth and Adolescence*, 36(2), 111-125.

- Torney-Purta, J., Homana, G., & Barber, C. (2006, April). *Young people's social and political attitudes and communities of practice in four countries*. Paper presented at symposium conducted at the American Educational Research Association conference, San Francisco, California.
- Torney-Purta, J., Lehmann, R., Oswald, H., & Schulz, W. (2001). *Citizenship and education in twenty-eight countries*. Amsterdam: International Association for the Evaluation of Education Achievement.
- Torney-Purta, J., & Richardson, W. (2003). Teaching for the meaningful practice of democratic citizenship: Learning from the IEA Civic Education Study in 28 countries. In J. Patrick, G.E. Hamot, and R.S. Leming (Eds.), *Principles and practices of democracy in the education of social studies teachers: Volume 2* (pp. 25-44). Retrieved from ERIC database. (378824)
- Torney-Purta, J., Richardson, W., & Barber, C. H. (2004). *Trust in government related institutions and civic engagement among adolescents: Analysis of five countries from the IEA civic education study* (Working Paper No. 17). College Park, MD: The Center for Information and Research on Civic Learning and Engagement.
- Torney-Purta, J., Schwille, J., & Amadeo, J. (1999). *Civic education across countries: Twenty-four national case studies from the IEA Civic Education Project*. Amsterdam: IEA.
- Torney-Purta, J., & Vermeer, S. (2004). *Developing citizenship competencies from kindergarten through grade 12: A background paper for policymakers and educators*. Denver, CO: National Center for Learning and Citizenship, Education Commission of the States.

- Valentino, N., & Sears, D.O. 1998. Event-Driven Political Socialization and the Preadult Socialization of Partisanship. *Political Behavior* 20 (1): 127-154.
- Valli, L., Croninger, R., Chambliss, M., Graeber, A., & Buese, D. (2008). *Test driven: High-stakes accountability in elementary schools*. New York, NY: Teachers College Press.
- Verba, S., Schlozman, K. L., & Brady, H. E., (1995). *Voice and Equality*. London, England: Harvard University Press.
- Vosniadou, S. (2001) *How children learn*. (Educational Practices Series, No. 7). Geneva, Switzerland: IBE/UNESCO.
- Vygotsky, L. (1986). *Thought and language*. Boston: MIT Press.
- Walsh, C. E. (1987). Schooling and the civic exclusion of Latinos: Toward a discourse of dissonance. *Journal of Education*, 169, 115-131.
- Weick, K.E. (1979). *The social psychology of organizing*. (2<sup>nd</sup> ed.). New York, NY: McGraw-Hill.
- Wenger, E. (1998). *Communities of practice: Learning and meaning in school*. New York, NY: Cambridge University Press.
- Wentzel, K. (1994). Relations of social goal pursuit to social acceptance, classroom behavior, and perceived social support. *Journal of Educational Psychology*, 86(2), 173-182.
- Wentzel, K. (1997). Student motivation in middle school: The role of perceived pedagogical caring. *Journal of Educational Psychology*, 89(3), 411-419.
- Wentzel, K. R. (1998). Social relationships and motivation in middle school: The role of parents, teachers, and peers. *Journal of Educational Psychology*, 90(2), 202-209.

- Wentzel, K. R., Barry, C. M., & Caldwell, K. A. (2004). Friendships in middle school: Influences on motivation and school adjustment. *Journal of Educational Psychology, 96*(2), 195-203.
- Westheimer, J., & Kahne, J. (2003). Teaching democracy: What schools need to do. *Phi Delta Kappan, 85*(1), 34-66.
- Westheimer, J., & Kahne, J. (2004). What kind of citizen: The politics of educating for democracy. *American Educational Research Journal, 41*(2), 237-269.
- Willms, J. D. (2003). *Ten hypotheses about socioeconomic gradients and community differences in children's developmental outcomes*. Ottawa, Ontario: Applied Research Branch of Human Resources Development Canada.
- Willms, J. D. (2006). Variation in socioeconomic gradients among Cantons in French- and Italian-speaking Switzerland: Findings from the OECD PISA. *Educational Research and Evaluation, 12*(2), 129-154.
- Yates, M. (1999). Community service and political-moral discussion among adolescents: A study of mandatory school-based programs in the United States. In J. Youniss & M. Yates (Eds.), *Roots of civic identity: International perspectives on community service and activism in youth* (pp. 16-31). Cambridge, England: Cambridge University Press.
- Yates, M., & Youniss, J. (1998). Community service and political identity development in adolescence. *Journal of Social Issues, 54*(3), 495-512.
- Youniss, J., McLellan, J. A., & Yates, M. (1997). What we know about engendering civic identity. *The American Behavioral Scientist, 40*(5), 620-631.