COLLEGE, CAREER & CIVIC LIFE

C3 FRAMEWORK

FOR SOCIAL STUDIES STATE STANDARDS

Guidance for Enhancing the Rigor of K-12 Civics, Economics, Geography, and History

The College, Career, and Civic Life (C3) Framework for Social Studies State Standards: Guidance for Enhancing the Rigor of K-12 Civics, Economics, Geography, and History is the product of a collaboration among the following fifteen professional organizations committed to the advancement of social studies education:

American Bar Association

American Historical Association

Association of American Geographers

Campaign for the Civic Mission of Schools

Center for Civic Education

Constitutional Rights Foundation Chicago

Constitutional Rights Foundation USA

Council for Economic Education

National Council for Geographic Education

National Council for History Education

National Council for the Social Studies

National Geographic Society

National History Day

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World History Association

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Appendix **E**

Scholarly Rationale for the C3 Framework

IN THE C3 FRAMEWORK, the call for students to become more prepared for the challenges of college and career (Bellanca and Brandt, 2010; Di Giacomo, Linn, Monthey, Pack, and Wyatt, 2013; Partnership for 21st Century Schools, 2011)[1] is united with a third element: preparation for civic life. Advocates of citizenship education cross the political spectrum, but they are bound by a common belief that our democratic republic will not sustain unless students are aware of their changing cultural and physical environments; know the past; read, write, and think deeply; and act in ways that promote the common good. There will always be differing perspectives on these objectives. The goal of knowledgeable, thinking, and active citizens, however, is universal.

The need for strong preparation in social studies is as apparent today as it has been in the past. In their *Framework for 21st Century Learning* (2011), the Partnership for 21st Century Skills identified government and civics, economics, geography, and history among the nine core subjects. Moreover, civic literacy, global awareness, and financial, economic, business, and entrepreneurial literacy are identified among the 21st century interdisciplinary themes. Finally, several of the key life and career skills listed fall firmly if not exclusively in the social studies: students must be able to work independently, be self-directed learners, interact effectively with others, and work effectively in diverse teams. The push for college and career readiness, so evident in the Common Core State Standards, is important, but as the Framework for 21st Century Learning makes clear, equally important is the need to help students ready themselves for their roles as citizens.

The rationale for social studies as one of the core school subjects is compelling. Unfortunately, that rationale has not always translated into the kinds of coherent and ambitious teaching and learning that enable students to achieve the promise of calls like the *Framework for 21st Century Learning.*

The C3 Framework and its Inquiry Arc mark a significant departure from past attempts to develop a robust social studies program. Some of the most compelling reasons for this departure are the remarkably flat scores on the National Assessment of Educational Progress (NAEP) in Civics/Government, Economics, Geography, and U.S. History (search "The Nation's Report Card" by these subjects to study the results). As the gold standard of national assessment, the NAEP results have

[1] The references in this Appendix are to works cited in the References section that follows.

been telling us for close to 20 years that our efforts to improve learning in key social studies subjects have not resulted in increased student achievement. Far too many 12th graders leave school with below-basic understandings.

A second reason why the C3 Framework represents a profound change is rooted in the research on teaching and learning in social studies that has drawn a remarkably consistent picture of what typically happens in schools. Too many social studies teachers—driven by content coverage demands, growing accountability requirements, and an all-too-crowded school day—spend much of their time talking at students (e.g., Brophy and Alleman, 2008; Cuban, 1991). Instead of building understandings in a robust learning environment, students too often spend their time simply trying to keep track of all the ideas flowing at them from their teachers and their textbooks.

This research, like the findings from the NAEP assessments, paints a remarkably consistent portrait of the consequences of such efforts: students learn too little. They develop precious few deep understandings of what they are called upon to learn in social studies.

We also know from other research that what students do retain from their studies is often wildly distorted and riddled with all manner of naïve conceptions about the past and the way the sociocultural world works (e.g., Frisch, 1989; Wineburg, Mosberg, Porat, and Duncan, 2007). They are also alienated by the social studies experience they receive in school, which is particularly the case among students of color (e.g., Epstein, 2009). Students are asked to be good consumers of other people's knowledge and ideas, but they rarely get a chance to build their own deeper understandings, to learn to give up their naïve ideas, and to construct more powerful forms of knowledge. The outcome shows us that little change in learning can be wrested from doing more of the same.

A growing body of research on how students learn school subjects such as social studies repeatedly teaches us that students need opportunities to ask questions, pursue answers to those questions under the tutelage of expert teachers who can show them how to discipline their thinking processes, and take part in opportunities to communicate and act on their understandings (Torney-Purta, Hahn, and Amadeo, 2001). Much of this work is cited in this Appendix, as it forms the basis for the scholarly rationale for the C3 Framework.

The C3 Framework signals a significant departure from past practices because it seeks to take advantage of this research and address the messages sent by NAEP tests. The Framework's four Dimensions build directly from the findings laid out in research on how students learn; they seek to redress the limits on learning repeatedly noted by NAEP tests. In what follows, we identify how this research supports and underpins the fundamental shift in direction and practice the C3 Framework embodies. If we are serious about wanting students who are civic-minded and adequately prepared for both college and careers, we can no longer ignore the prospect of making good on this new direction.

The Importance of Questions

Children and adolescents are naturally curious, and they are especially curious about the complex and multifaceted world they inhabit. Whether they articulate them to adults or not, they harbor an almost bottomless well of questions about how to understand that world. Sometimes children's and adolescents' silence around the questions in their heads leads adults to assume that they are empty vessels waiting passively for adults to fill them with their knowledge. This assumption could not be more mistaken.

Children's and adolescents' curiosity is deeply rooted in an unceasing desire to make sense of what goes on around them—through their language development; in their social interactions with parents, siblings, friends, and community members; and through what they see on television, in the movie theater, on YouTube, or on the Internet. Perhaps little signals the intensity of this socio-cultural curiosity so much as the wild popularity of social networking sites such as Facebook.

So what should a sound social studies education entail? The C3 Framework provides a plan that is deeply rooted in recent research on thinking, learning, and understanding.

For the reasons outlined above, a social studies education must begin with the kinds of compelling questions

and investigations described in Dimension 1. Young students will need help in framing useful questions and planning their inquiries, but even the youngest children want to make sense of the social and cultural environments around them (Brophy and Alleman, 2008). For example, students want to know what to make of the geographical spaces they inhabit whether their local community lies on the banks of a large river, on the high plain where the wind blows constantly, or in the shadows of snow-covered mountains. They are curious about the "olden days" Grandma always talks about. They wonder how money works as a means of purchasing things at stores. And they are fascinated by questions of who gets to make rules and whether those rules are fair. As they develop, and with the guidance of adults and peers, these questions give way to more sophisticated variants (Hess, 2008; Rogoff, 1994).

For too many years, however, a social studies education has meant a didactic, unidirectional process. Teachers have tried to instill ideas directly from adults' social worlds into children's minds on the assumption that, if there was enough telling, imploring, and demanding done, children would acquire those discipline-related ideas (Brophy and Alleman, 2008; Cuban, 1991). Researchers who have studied how children learn repeatedly confirm that young people learn by framing their own questions, with or without adult help (Bruner, 1960, 1996; Piaget, 1929/2007; Vosniadou, 2008; Vygotsky, 1986). Young people also construct their own problem-solving strategies, again with or without adult assistance. Those questions and problem-solving strategies, and the conclusions that young people reach, can remain naïve, ill-structured, undisciplined, and misleading without intervention by adults (Barton, 2008; Brophy and Alleman, 2006; Hahn and Alviar-Martin, 2008; Hicks, van Hover, Doolittle, and VanFossen, 2012; Miller and VanFossen, 2008; Segall and Helfenbein, 2008; VanSledright and Limon, 2006).

Challenging those nascent and often ill-formed questions, strategies, and conclusions can be very difficult, particularly if teachers are unaware of them. Young children, for example, often persist in the idea that banks exist only to give people money (Berti, 1995). It is not an unreasonable conclusion: they watch as parents get money from a bank's ATM simply by inserting a plastic card and punching a key or two. This process of "banks giving people money on command" answers the child's crucial economic question—where does money come from? Similarly, some young people insist on believing that developments in the past add together in such a way as to indicate a steady, if overgeneralized, march forward; this is reflected in the notion that things always and only get better (Barton, 1996; Brophy and VanSledright, 1997). This perspective helps children tell a story about why Grandpa is always talking about how lucky kids are today, or why Mom tells them about the childhood diseases she endured that they will not.

Children and adolescents are not empty vessels into which we pour our adult ideas and knowledge. Decades of research on how young people learn have repeatedly reinforced the view of students as active sense makers, who rely heavily on language to mediate their worlds and who are deeply enmeshed in investigating their social worlds in search of better ways to navigate it (Brophy, 1990; Bruner, 1996; Cole, 1995; Piaget, 1929/2007; Vygotsky, 1986).

Questions as Problem-Solving Spaces

The C3 Framework begins at the intersection of student and discipline-based questions, those that concern the socio-cultural worlds that human beings have long desired to understand (Dimension 1). Many of those questions are discipline-specific, but others transcend individual disciplinary categories and are multidimensional in nature. For example, consider the question, how bad was the economic recession that began in 2007?

At first glance, this question seems to fall squarely within the discipline of economics. It demarcates a clear economic problem space—the period of recent economic struggle that saw incomes freeze or decline, unemployment increase, and capital markets contract. At the same time, it implies a set of supporting questions around spatial proportion: was the impact of this recession felt equally across the country? Or were certain geographic regions less severely affected and, if so, which ones and why? It also suggests additional questions involving history, politics and government. To ask how bad this recession is, we need to have some sort of historical reference point, such as the Great Depression, from which to gauge its impact. And we need to know

what role government and political decision making played in its inception, duration, and resolution.

A compelling question, then, demands that students think and reason economically, geographically, historically, and politically (Dimension 2) in order to fully address the issue. Along with the behavioral and social sciences, these disciplinary lenses help students think broadly; separately, these lenses enable students to set up and pursue their investigations in different ways.

Investigative Practices and Problem-Solving Strategies

To ask questions implies the desire to answer them. Learning to investigate questions through the thinking and problem-solving strategies offered by the disciplines results in deeper understandings of the socio-cultural phenomena being investigated (Brophy, 1990; Donovan and Bransford, 2005). Doing so requires practicing those strategies until students become skilled and achieve automaticity.[2] Researchers have found that learning new ways of thinking can be slow because students often are reluctant to give up intuitive but naïve ideas that seem to work for them (e.g., Brophy, 1990; Piaget, 1929/2007). Persistence and repeated opportunities for students to practice different ways of thinking become the pedagogical order of the day.

So, what does thinking in the different disciplines look like? What do the experts do and how do school-aged students learn to accomplish it by comparison? What sorts of changes in thinking practices do learners need to undertake in order to become more knowledgeable about and proficient at understanding the world? What follows is a brief review of the last five decades of research on these questions.

[2] Automaticity is a term that means exercising a complex, problem-solving, cognitive operation without needing to devote conscious energy to thinking through its specific requirements and processes. An example from history might involve being able to read, analyze, and synthesize a cluster of difficult and conflicting accounts on the way to arriving at a defensible, evidence-based interpretation/understanding, all without much apparent effort. Automaticity in some disciplinary operations can take years to build. It is sometimes characterized as a hallmark of cognitive, problem-solving expertise. It is certainly a symbol of competence and proficiency.

Economic Thinking

Economic investigators are interested in the comparison of marginal costs and marginal benefits to allocate resources in a manner that maximizes well-being. Although not all economic investigators share the same assumptions about how markets and economies work, they typically believe that economic actors—individuals and/or organizations such as corporations—are rational beings or entities focused on satisfying their own self-interests. Because economic investigators are interested in marketplace activity, patterns become deeply important. Therefore, the language of numbers plays a decisive role in the ways in which they conduct their investigations.

To understand the depth of the recent recession, for example, economic investigators gather data about unemployment patterns; corporate assets, liabilities, and the changing patterns between them; government monetary and fiscal policy roles; and the like. Investigators use the patterns they glean from such data to assess the depths of up-and-down turns in the economy, to evaluate current states, to predict likely directions, and to offer recommendations. The ways that economic investigators employ economic models and gather data that offer evidence in support of those models provide justification for their explanations and claims of understanding (Miller and VanFossen, 1994).

Such practices, if engaged in well, require a form of economic literacy that depends on understanding and employing key concepts such as supply and demand, market liquidity, business cycles, labor practices, consumption, trade policies, and economic efficiencies (Dahl, 1998; Greenspan, 2005; Morton, 2005; Saunders and Gilliard, 1995; Council for Economic Education, 2010). That literacy also entails the application of theories that describe the interconnections among concepts and how they play out within economic structures. These theories or models of economic activity (and they can vary based on assumptions) allow investigators to attempt predictive solutions for economic problems (Miller and VanFossen, 1994).

Children, however, draw from simple everyday experiences to shape their views of how economies work, and those everyday ideas, while seeming to make intuitive sense, are decidedly naive (Berti, 1995; Berti and Bombi,

1988; Laney, 2001). Children frequently harbor a variety of ill-structured and incomplete economic ideas, such as the difference between buying and renting (Brophy and Alleman, 2006), the size of a price tag determining how much a good costs, and that pieces of property are owned by the people who live around them (Laney and Schug, 1998).

These sorts of ideas held by children (and even some adolescents) significantly limit their capability to think economically and solve economic problems (Miller and VanFossen, 2008). As Alice Rivlin (1999) once observed, "without a basic understanding of how the economy works, what the…terms and concepts are, the average citizen is likely to be left out of any conversation…about what is happening in the economy and what to do about it."

If students are to address a compelling question such as measuring the impact of the recent recession, they need opportunities to engage in investigations of such economic questions (Dimension 1), use economic reasoning and problem-solving strategies (Dimension 2), gather data that address those questions (Dimension 3), and do all of this collaboratively inside and outside the classroom context (Dimension 4). By engaging in this process, students can become more economically literate—able to use key economic concepts and data-gathering and analytic tools to solve problems. Doing so requires the educational assistance of knowledgeable social studies teachers, who know how to construct and conduct such investigations, and within them, shape naïve ideas into more sophisticated ones.

Geographic Thinking

Geographic inquiry focuses attention on place and space and seeks to understand why humans deal with them in ways that they do and with what consequences. Whereas to economists the recent recession is about causes, effects, and solutions to slowing economic activity, to geographic investigators it is about understanding and representing the spatial expressions of the events. Maps and other graphics showing changes in spatial patterns of human and physical environments provide a geographic language that aids in analyzing and understanding issues while stimulating new questions to investigate.

To investigate the causes and consequences of economic and political events, geographers ask questions about the changing landscape of human activity—who was affected, where, and how? For example, did the recent global recession cause observable population shifts, changes in landscape uses, or spatial re-patterning of human activity across the United States and other countries? To answer such questions requires problem-solving strategies that entail spatial thinking, data gathering, and spatial analysis using geospatial data, maps, and other graphics.

Research on geographic thinking suggests that children learn how to navigate spatial relationships early on. Even very young children develop mental maps of environments they experience and can manage to work with simple directional maps (Bednarz, Acheson, and Bednarz, 2010; Blades and Spencer, 1987) and they become somewhat adept at using map symbol systems (Boardman, 1989). However, children may persist in some naive understandings they initially develop such as consistently misreading adult mapmakers' representations of city populations by the use of different sizes of map dots.

Other map symbols are also misunderstood without opportunities to investigate how they can be used to convey spatial ideas (Bednarz et al., 2010; Hickey and Bein, 1996; Liben and Downs, 1989). These misunderstandings may arise repeatedly because the everyday understandings children develop early on make good intuitive sense to them. Geographic investigations that involve more advanced forms of spatial reasoning help learners reconstruct their misleading understandings (Gregg, 1997). Simply telling children to change their intuitive, but counter-productive spatial ideas does little good. They need opportunities in the presence of knowledgeable others to engage in spatial-reasoning investigations (e.g., drawing and describing their own mental maps and making map representations based on data collected or personal field observations) in which they confront cognitive impasses created by their naive everyday ideas. This kind of activity gives them a chance to restructure what they believe and know in more productive ways.

Changes in geospatial technologies have extended and amplified the reach and importance of the applications

of geographic knowledge, skills and perspectives. Learning to employ technologies such as GIS and Google Earth during their inquiries can serve ably in providing students with opportunities to restructure their knowledge, gain new skills, and change their perspectives. Students may engage in this process individually or collectively and collaboratively with the assistance and guidance of the more knowledgeable teacher.

Geographic thinking entails representing complex ideas about place. In many respects, places are created through human activity as people adapt to and modify the spaces they occupy. Ways of representing such activities are nearly always laden with the personal and cultural perspectives of the representers (Harley, 1994; Segall and Helfenbein, 2008). Without considerable prompting, students typically do not think much about who created the maps (i.e., cartographers), preferring instead to imagine that maps come ready-made and are thus always accurate. Yet, the sorts of political and socio-cultural distortions that may creep into such representations and into geographic narratives are crucial for students to understand if they are to achieve the type of geographic literacy and capable thinking required of citizens in democracies (Bednarz et al., 2010). How we come to understand and represent our global and interconnected world has important consequences for our lives (Segall and Helfenbein, 2008).

If investigating and understanding how people make economic choices, and with what consequences, helps us better make sense of who we are and why we do what we do, then investigating how we come to know and represent the world through geographic reasoning and tools helps us understand even more fully who we are and how we adapt to and modify a changing world. If taught in the research-based way the C3 Framework suggests, economic and geographic understandings will become less parochial and provincial as learners develop into more sophisticated and incisive thinkers.

For a comprehensive review of geography education research studies that examine how geographic knowledge, skills, and practices develop across diverse individuals, in a variety of settings, and over time, see Bednarz, Heffron, and Huynh (2013).

Historical Thinking

In effect, posing historical questions involves asking what the past means, what people in the past were thinking and talking about, and how that thinking and language caused them to behave in the ways they did (Collingwood, 1946/1993). Expert historical investigators rely on residue from the past—both original accounts and testimonials and synthetic sources constructed by previous investigators—to address those questions. These sources demand extensive reading, defined very broadly to include texts, cartoons, paintings, maps, charts, photographs, and the like.

In order to address their questions and develop deeper understandings of how people acted in the past, historians read in particular ways (Lee, 2005; Wineburg, 2001). This way of reading is a type of thinking that involves strategies and skills, ones that lead to historical understanding. If we wish our students to ask more profound questions of the past as well as construct deeper understandings of it, we need to teach them to think and reason in the ways demonstrated by those with greater expertise (VanSledright, 2011).

Historical questions, then, demand that students search out relevant accounts; identify what types of accounts they are; attribute them to authors; assess the authors' perspectives, language, motives, and agendas; and judge the reliability of those texts for addressing the questions posed (VanSledright and Afflerbach, 2005; Wineburg, 2001). They also do whatever they can to read these authors slowly, closely, and within the historical context of the period in which they lived (Reisman, 2012; Wineburg, 2001). Students then convert those accounts into forms of evidence for making claims about what occurred and why (Lee, 2005; Lee and Shemilt, 2003). These claims are justified through a process of evidence corroboration in which the way the evidence preponderates or comes together supports certain claims over others. Collectively, the evidence-justified claims serve as a form of historical understanding.

In history, there is often a dispute over what the past means. Investigators wrestle over what counts as justified understandings because evidence can sometimes be applied to make multiple and different claims. It will come as no surprise, then, that students investigating the recent recession may arrive at varied conclusions.

For better or worse, historical reading and thinking, and the specific strategies they require, seldom provide a single, definitive answer to the questions posed. Children and adolescents can come to make sense of this problem, since most of them have undergone experiences in which differing perspectives (e.g., she said/he said during a playground spat) prevented closure on a given issue.

Young people, the research studies suggest, do not necessarily come to these forms of historical reading and thinking on their own (Donovan and Bransford, 2005; Levstik and Barton, 1997; VanSledright and Brophy, 1992; Wineburg, 2001). Their naïve, everyday ideas formed through lived experience tend to interfere with richer understandings (Lee, 2005).

For example, children learn early on about the difference between telling the truth and telling a lie, since uttering the latter is often met with punishment. They quickly develop the idea that people can engage in only these two dichotomous possibilities, and they bring this social understanding to the social studies classroom.

When reading accounts about events during the American Revolution—for example, one by a British soldier and a contradictory one by a colonial minuteman concerning who was at fault during a bloody skirmish, children (and even some adolescents) insist that one or the other must be lying. In a complex world, this dichotomous thinking can arrest understanding because it becomes difficult to determine which is which without corroborating evidence. Moreover, the notion of differing (and often conflicting) perspectives offers a more useful idea in that it helps explain why historical actors may have interpreted what appears to be the same situation in vastly different ways (Lee, 2005; VanSledright, 2011; Wineburg, 2001). Helping students achieve such understandings can take a number of different forms. Classroom discussions of emerging understandings based on analyses of sources and the evidence they produce can be crucial (Hess, 2009). Writing is also critical: recent studies have demonstrated that students who write about their historical understandings and are coached on how to gradually build sound evidence-based arguments, demonstrate a deeper grasp of how to address the questions posed (Monte-Sano, 2008; Monte-Sano, 2011).

This is but one additional example that explains why the C3 Framework stresses the Inquiry Arc of developing questions; applying disciplinary concepts; gathering sources and using evidence; and working collaboratively to develop conclusions and take action. Learning to think historically (or economically, or geographically, or politically) helps children and adolescents let go of some of their less-productive ideas and develop richer ones that aid in their understandings of the social and cultural world (Donovan and Bransford, 2005).

Civic-Minded Thinking

If economic investigators primarily explore questions about how resources move to produce goods and services and how, in turn, those products flow to consumers, investigators who study politics and government primarily examine questions about how power flows. They are interested in understanding the political and civic actions of individuals and organizations and how they influence one another (Budano, 2012). Returning to the question about the recent recession, civic-minded investigators would trace how people's political behavior (e.g., voting practices, campaign donations) shapes the policies of elected officials in government and/or the converse. Those investigations would produce data that could be used to identify the role different policies (e.g., federal and local taxation, fiscal and monetary, discretionary and entitlement spending), or the lack thereof, play in creating a growth-recession cycle.

Analyzing how bad the recession was might be gauged by investigators of the civil polity through surveys of people's attitudes toward governmental organizations during this recession compared to other recessions, and how citizens deliberated about it and responded in the voting booth. These investigators might also survey the movement and efficacy of repair policies (e.g., stimulus packages, bail outs) through governmental organizations. Policy developments, their sources, and consequences as exercises in power shape the vocabulary of politics and government investigators. Their efforts are animated by asking questions about how power flows through cultures, resulting in policies and laws that regulate how citizens interact to solve dilemmas and conflicts between and among different interests. These investigators borrow a number of concepts and models from economists and historians. Because their questions focus on different kinds of problems (e.g., the

nature of civic behavior, or the effects of government policies), they use the concepts and models differently in order to address those problems.

Young social studies students typically have rather limited understandings of the internal workings of politics and civic behavior, both among individuals and within and across governmental bodies. They learn about voting as a decision-making strategy and can engage in simple forms of it, but they can have quite naïve understandings about it and they often overgeneralize the circumstances in which it can be applied (e.g., that all decisions should be subjected to a vote). Students of all ages are very curious about how decisions get made, and show interest in participating.

Early on, children rely heavily on their families for ideas about civic participation and how it works (Hess and Torney, 1967/2009). In order to learn how to participate effectively within deliberative and policymaking contexts, students need considerable guidance and continual practice in order to modify their naïve political and civic ideas. Students who are encouraged to ask questions, debate alternative actions, and gather evidence about the likely consequences of choosing one direction over others are typically less cynical than peers who do not have those experiences (Haas, 2004; Torney-Purta, Hahn, and Amadeo, 2001). Opportunities to engage in service-learning experiences also help prepare students for their adult responsibilities in participatory democratic cultures (Hahn and Alviar-Martin, 2008; Hess and Torney, 1967/2009; Kahne and Sporte, 2008; Metz and Youniss, 2005; Parker, 2008).

Evidence as Understanding

If one goal of education is to improve students' decision-making judgment and to prepare them for college, careers, and civic life, there is no substitute for deep knowledge and understanding of the socio-cultural world offered through the four forms of disciplinary thinking described above. Along with the behavioral and social sciences, each offers powerful strategies and tools for exploring and answering compelling and supporting questions. In their different ways, they provide time-honored means of turning source data into evidence for the conclusions one reaches (Dimension 3).

One of the central principles in the C3 Framework rests on the concept of evidence. Anyone can ask a question about the social world and come to some answer or another, no matter how wildly speculative or opinionated. Human minds have great capacity for imagination. A wildly speculative answer or an imaginative conjecture, however, is not the same thing as understanding. Understanding is achieved by the careful investigation of questions, data collection, reading, analysis, and synthesis; in effect, data are transformed into evidence-based claims that separate opinions and conjecture from justifiable understandings.

In a digital world filled with fact and speculation, that difference is a crucial contribution social studies teachers who follow the C3 Framework can offer to their students. This claim is no more evident than in the research done on teaching and learning in history education (see reviews by Barton, 2008; Grant, 2006; Lee, 2005; VanSledright and Limon, 2006; Voss, 1998; Wineburg, 2001).

In our rapidly-changing world where ideas, information, and opinions are but mouse-clicks away, students more than ever need to learn how to keep learning in order to cultivate sound understandings (Lee, 2010). As a result, they need a deep well of powerful and disciplined strategies for answering their questions and for gathering data that can be evaluated and transformed into evidence for justifiable decisions.

The days are long past when it was sufficient to compel students to memorize other people's ideas and to hope that they would act on what they had memorized. If 20 years of National Assessment of Educational Progress report cards on youth civic, economic, geographical, and historical understanding mean anything, they repeatedly tell us that the success of that telling-and-compelling effort no longer works in the 21st century, if it ever did (Smith and Niemi, 2001).

Working Collaboratively to Show Understanding

The research on how people learn makes clear how important collaborations are to deeper understanding (Brown and Campione, 2002; Brown, Collins, and Duguid, 1998; Palinscar, 1998). Businesses in Silicon Valley, for example, picked up on this idea long ago:

collaborative developmental teams designed the means of bringing the Internet to people in ways reminiscent of early 20th century efforts toward mass electrification. Researchers have long stressed the insights John Dewey (1902) offered about how important our shared language and vocabularies are to thinking and problem solving (Bruner, 1960; Rogoff, 1994 Vygotsky, 1986). In short, much of our best thinking occurs when we build and express ideas in collaborative settings (Dimension 4).

Teachers work to bridge student experience-based questions with disciplinary ones. Collaborative inquiries designed to address those questions are then launched in classrooms. Teachers act as guides, facilitators, and disciplinary ambassadors. Students are, however, engaged in the actual investigative work (for detailed examples of how this can play out in history classrooms, see Bain [2000] at the secondary level and VanSledright [2002] at the elementary level). Working together, students learn how to think more clearly and powerfully by employing disciplinary knowledge and methods. In doing so, they transform data they gather into evidence for the conclusions—explanations and arguments—they reach.

These explanations and arguments need to be communicated, for it is in this communication practice that teachers obtain evidence of growth in students' understandings (or the lack thereof). The process can take many collaborative forms. Students can read, analyze, and discuss data sources and accounts together; design websites or wikis; create digital documentary presentations; discuss and debate claims orally in the classroom; and engage in writing collective essays (Hess, 2002; Klingner, Vaughn, and Schumm, 1998; Soller, 2001; Monte-Sano, 2008; Swan and Hofer, 2008; Swan and Hofer, 2013). It is here, in particular, that the C3 Framework dovetails closely with the types of communication practices expected of students within the Common Core State Standards for English Language Arts and Literacy in History/Social Studies.

The aforementioned research speaks compellingly: While it is important for students to demonstrate their individual progress, they make more rapid progress in building their social studies understandings when working together.

Furthermore, collaborative opportunities to inquire into and then communicate understandings support students' informed civic engagement, a principal goal of a rich social studies education. Researchers have found that (a) investigating how governments operate, (b) engaging in opportunities to discuss and debate current social problems and issues, (c) being involved in service-learning and related activities, (d) participating in high-impact decision-making, and (e) participating in simulations of politically related activities all increase the likelihood of students attaining higher levels of political understanding, commitment, and action (Hess, 2002; Torney-Purta, 2005). As the Inquiry Arc of the C3 Framework culminates in Dimension 4, so too does the preparation for student success in college, career, and civic life.

Progressions in Socio-Cultural Understanding

The C3 Framework is organized by grade bands because researchers have long demonstrated that disciplinary ideas and understandings show progression in their development (Piaget, 1929/2007; Vygotsky, 1986). Some of the early work suggested that progression tended to form in lock step. That is, children and adolescents needed to attain a certain cluster of understandings before they could move to the next stage. This set of claims has given way to the idea that progression can be bumpy and uneven, and that children and adolescents may move back and forth across developmental levels. Therefore, students need repeated opportunities to work in investigative contexts with disciplinary concepts, strategies, and ideas (Lee and Ashby, 2000; Ashby, Lee, and Shemilt, 2005; VanSledright, 2002).

Students' capability to ask rich questions within disciplinary-based inquiries grows rather slowly. They need considerable guidance from more knowledgeable adults and peers in asking the meaty questions that prompt the development of deeper socio-cultural understandings useful to adults in democracies. This is not to say that the questions students ask are irrelevant. Rather, teachers will find the task of assisting their students in constructing questions and developing inquiries more challenging than, say, teaching students to consider an author's perspectives when reading a history text (Reisman, 2012).

Student progress can also be uneven in using evidence to draw conclusions (VanSledright, 2002; Wineburg, 2001). Researchers find that even some college students think that unsupported opinions are sufficient to claim understanding, and they can struggle to distinguish them from evidence-backed arguments (Maggioni, 2010; Maggioni, VanSledright, and Reddy, 2009; Seixas, 1993). Helping students make better distinctions and build criteria for judging the difference takes time and demands multiple opportunities to practice.

What then can social studies teachers reasonably expect as students progress through the social studies program? As the foregoing implies, researchers suggest that they will see relatively slow growth in children's and adolescents' disciplinary thinking and understanding. This finding makes sense. Because children's early learning experiences so often result in tightly-held intuitive, but often naïve understandings, children find those understandings difficult to give up and/or reconstruct.

It is just this kind of research finding that undergirds the importance of helping students develop questions and inquiries into the world. Merely telling students how the economy works or what the past means requires that they accept the teacher's word on faith. Researchers make it clear that this approach is insufficient. Students need repeated opportunities to practice asking questions, investigating phenomena, and gathering the necessary evidence if they are to progress in building explanations and arguments that illustrate their knowledge and understandings.

Furthermore, it is important to understand that students are quite capable of thinking in the ways that the Inquiry Arc indicates. The research base here is pointed: students are more than able to think deeply and richly about the world around them. They simply grow at different rates and need many and varied opportunities to engage with ideas (Donovan and Bransford, 2005). It is important to hold high, but reachable expectations for student learning progressions. Grade banding plus repetition is a way to suggest how the repeated opportunity to practice evolves across broad grade clusters.

Understanding as Civic Engagement

The C3 Framework and the embedded Inquiry Arc are underpinned by decades of research on how children and adolescents learn about and operate in the world. They begin with those young people's questions, intersect them with the social studies disciplines, and broach investigations into the world that are designed to address those questions. This approach is not willy-nilly. The research base demonstrates that the contributions disciplinary thinking can make to deepen young people's understandings of the world are indeed profound.

These disciplined ways of thinking are also ways of learning. As such, they are crucial in preparing young people for lives as engaged and active citizens. Now more than ever, students need the intellectual power to recognize societal problems; ask good questions and develop robust investigations into them; consider possible solutions and consequences; separate evidence-based claims from parochial opinions; and communicate and act upon what they learn. And most importantly, they must possess the capability and commitment to repeat that process as long as is necessary. Young people need strong tools for, and methods of, clear and disciplined thinking in order to traverse successfully the worlds of college, career, and civic life. The research that underpins the C3 Framework offers much to move our children precisely in that direction.