

MEASURING CIVIC KNOWLEDGE:
USING THE DELPHI METHOD TO CONSTRUCT A CIVIC KNOWLEDGE INVENTORY
FOR ELEMENTARY TEACHERS

by

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B.S., Northern Michigan University, 1980
M.S., Wichita State University, 1985

AN ABSTRACT OF A DISSERTATION

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Department of Curriculum and Instruction
College of Education

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Abstract

A foundational mission of our public schools is dedicated to preserving a democratic republic dependent on a literate and actively engaged citizenry. Civic literacy is essential to supporting the rights and responsibilities of all citizens in a democratic society. Civic knowledge is the foundation of our citizens' civic literacy. National Standards for Civics and Government (Center for Civic Education, 1994) promote civic literacy for all students including elementary children. Therefore, understanding important civic concepts is essential knowledge for elementary educators. Civic knowledge has not been required or monitored in teacher preparation or licensure. At the time of this study, there were no comprehensive measures of elementary teachers' civic knowledge.

The purpose of this study was to investigate a project funded by the Center for Civic Education that developed a Civic Knowledge Inventory (CKI) for elementary teachers using a Delphi technique. Specifically, this study analyzed the use of a Delphi process to identify major civic constructs elementary teachers should know and to create a valid and reliable measure of elementary teachers' knowledge of these selected civic constructs. The Delphi technique engaged eight anonymous civic scholars to work together via the Internet. Through rounds of input and feedback they identified important civic knowledge that elementary teachers should know and created a multiple-choice measurement tool aligned to these constructs.

In final analysis, the Delphi panelists collectively created a map of civic concepts that included: Constitutionalism, Representative Democracy, Citizenship, Human Rights, Civic Society, Market Economy and Examples of Non-Democracy as essential constructs accompanied by an outline of related sub-concepts and elements. This outline was then used to design, improve, and ultimately select the best test items for each construct. An item analysis was

completed on data produced by 89 volunteer pre-service elementary teachers to identify high performing items to be included in the CKI. Therefore, the CKI could be used to examine the extent to which teacher preparation programs adequately prepare elementary teachers to be civic educators and thus guide teacher preparation as well as related professional development initiatives.

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Dedication

This research is dedicated to the future teachers of our country as they face the many challenges of the 21st century while developing engaged and informed citizens. It is my hope that this work helps teacher preparation institutions to both effectively and efficiently prepare elementary teachers to be effective civic educators. Building civic knowledge and skills is the first step in providing teachers with competence, confidence and passion to promote civic literacy for our youngest citizens.

In addition, I would like to dedicate the completion of this personal milestone to my mother Donna Artman, and special family, friends and colleagues. This team believed in me enough to push me through my many moments of doubt while completing a project of this magnitude. This project was definitely a group effort with their unending support.

CHAPTER 1: Introduction to the Study

A government without popular information or the means of acquiring it is but a prologue to farce or tragedy or perhaps both. Knowledge will forever govern ignorance, and people who mean to be their own governors must arm themselves with the power knowledge gives.
James Madison (1788)

The Need for Effective Civic Education

Sentiments underlining the civic virtue of citizens as essential for a government to function properly are common in the writings of our nations' founders. Without an educated and participatory citizenry, it is doubtful that a democratic government can effectively protect citizens' natural and fundamental rights:

Although it has been argued that the establishment of the proper institutions is sufficient to maintain a free society, Thomas Jefferson, James Madison, John Adams, and others recognized that even the most well-designed institutions are not sufficient. Ultimately, a free society must rely on the knowledge, skills, and virtue of its citizens and those they elect to public office. Civic education, therefore, is essential to the preservation and improvement of American constitutional democracy. (The Center for Civic Education, 1994, p. 1)

According to the Center for Information and Research on Civic Learning and Engagement (CIRCLE, 2002), participants of an informed and active citizenry would exemplify common characteristics. CIRCLE defines responsible citizens as:

- are informed and thoughtful; have a grasp and an appreciation of history and the fundamental processes of American democracy; have an understanding and awareness of public and community issues; and have the ability to obtain information, think critically, and enter into dialogue among others with different perspectives;
- participate in their communities through membership in or contributions to organizations working to address an array of cultural, social, political, and religious interests and beliefs;

- act politically by having the skills, knowledge, and commitment needed to accomplish public purposes, such as group problem solving, public speaking, petitioning and protesting, and voting; and,
- have moral and civic virtues such as concern for the rights and welfare of others, social responsibility, tolerance. (CIRCLE, 2002, p.4)

CIRCLE is just one undertaking dedicated to civic education. Civitas

International (CCE, 1991) is another collaborative effort of civic experts that provides guidelines for civic curriculum and assessment to countries around the world. This international framework emphasizes the “organic” nature of civics in a democracy and describes the role each citizen must play to keep the system healthy for the future:

Many citizens lack an adequate understanding of fundamental constitutional features. But, principles that are repeated simply as catechism rather than grounded in experience and understanding, rest upon weak foundations. The citizen needs a deeper understanding of the American political system than is currently commonplace, both as a framework for judgment and as common ground for public discussion. Events often vindicate the common sense and basic good judgment of the American electorate; but common sense is more reliable when rooted in clear understanding of basic principles.

However, it is a dangerous illusion to suppose that American democracy is a self-perpetuating mechanism. Beneath the discernible operation of constitutional machinery, the American system is not mechanical, but organic. It is like a plant whose visible portion remains healthy only as long as its hidden, but vital roots are watered and nourished. It does not “go of itself” but requires careful attention and assiduous cultivation (Civitas, 1991, Executive Summary, p.2).

Therefore, the future health of our democracy depends on an effective civic education for all citizens. If civic education is essential to the well being of American constitutional democracy, then it must be taught, but by whom? The National Assessment of Educational Progress (NAEP) acknowledges the many sources of civic education, including the family unit, religious institutions, media, business and professional organizations, labor unions, and

community organizations. Though the aforementioned sources of civic education are important, missing from family and community-based civic education processes is the opportunity for systematic assessment of civic literacy for adults. To that end, educators often overlook the critical role K-12 education also plays in teaching civics. “The schools have a special and historic responsibility for the development of citizenship. Recent data from National Assessment of Educational Progress (NAEP) samples student civic knowledge at targeted grade levels over the past decade. If the society and its schools fail in their civic mission, then the constitutional democracy will be at risk” (NAEP, Civics Framework, 2006, p. ix). An assessment of teacher civic knowledge is one way to better know the relative health of teachers as leaders of our democracy.

Assessment of civics exists at selected grades in our k-12 system (NAEP, 2010); however, additional measures would inform initiative to improve civics education. The National Standards for Civics and Government (National Civic Standards, 1994), National Council of the Social Studies national Social Studies Standards (NCSS, 1994), and National Assessment of Educational Progress Civic Framework (NAEP Civics Framework, 2010) have created standards and benchmarks at the national level to measure and monitor specific civic knowledge and skills of the children in our public schools. Results of the most recent NAEP test for civics show that many students lack even a basic understanding of core civic concepts. As mentioned, NAEP administers civic tests every four years to sample student performance in grades 4, 8, and 12. Results of a national test of eighth graders demonstrated concerns with the mediocre level of student performance in civic education (NAEP, 2010). Only 4th grade students showed improvement from the 1996 NAEP results. Three out of four elementary students were at the basic level as measured by the NAEP 2006 test (NAEP, Civics Assessment, 2006). The 2006

NAEP summaries demonstrate little overall change in civic education performances (NAEP, 2006 Executive Summary). We must have information on what students know and are able to do regarding civics and government.

Citizenship—commitment to and participation in a community’s civic life—is the engine of constitutional democracy and free society. Knowledge of the rights, responsibilities and privileges of citizenship fuel that engine. Without the participation of informed, effective and responsible citizens, a democratic republic cannot and does not function, nor can it make progress toward its ideals. It is important, therefore, that Americans understand the civic values on which the nation was founded and by which it has since been guided. It is also important to assess young people’s knowledge of civics and their understanding of principles by which the nation does and must govern itself. Any increase in citizens’ civic knowledge, skills, and participation strengthens our republic and any reduction in their knowledge, skills, and participation weakens it. (NAEP, Civics Framework, 2006, p. 1)

The assumption that civic education is central to American education, then, is a starting point of the present study. Because elementary schools provide the necessary foundation for civic education at the secondary level, educators leading curriculum and instruction in elementary schools should be prepared to be the initial guardians of the civic mission of our schools.

Civics Connections to the Social Studies

Typically, educators do not teach civics as its own subject or discipline in elementary schools. Rather, they teach these concepts under the broader umbrella of Social Studies, standards for which include goals and benchmarks for geography, history, economics, and civics/government. In 1994, the Board of Directors of the National Council for the Social Studies (NCSS, National Social Studies Standards, 1994), the primary membership organization for social studies educators, adopted the following definition of social studies:

Social studies are the integrated study of the social sciences and humanities to promote civic competence. Within the school program, social studies provides coordinated, systematic study drawing upon such disciplines as anthropology, archaeology, economics, geography, history, law, philosophy, political science,

psychology, religion, and sociology, as well as appropriate content from the humanities, mathematics, and natural sciences. The aim of social studies is the promotion of civic competence—the knowledge, intellectual processes, and democratic dispositions required of students to be active and engaged participants in public life. By making civic competence a central aim, NCSS emphasizes the importance of educating students who are committed to the ideas and values of democracy. Civic competence rests on this commitment to democratic values, and requires that citizens have the ability to use their knowledge about their community, nation, and world; to apply inquiry processes; and to employ skills of data collection and analysis, collaboration, decision-making, and problem-solving. Young people who are knowledgeable, skillful, and committed to democracy are necessary to sustaining and improving our democratic way of life, and participating as members of a global community. (NCSS National Standards, 2010, Executive Summary, p. 1)

Such a wide-ranging definition of social studies precludes a narrow focus on civics education. Teaching civics, after all, is not a simple matter. The National Civic Standards (1994) and NAEP Civics Framework (2006, 2010) consider “civic virtues” or competencies to be comprised of civic knowledge, civic skills, and civic dispositions (Civic Framework for NAEP, 2006, p. x). Civic knowledge is defined as both historical and contemporary understanding of the structures and function of a constitutional government and knowing the leaders’ roles and institutions at a local, state, and national level. Civic skills defined as behaviors including the analysis of data and government issues including conflict resolution and being part of a group. Finally, civic dispositions include motivations for civic behaviors and attitudes. These dispositions can include personal responsibility as well as the support of justice and equality. How can a teacher hope to teach civic virtue in addition to meeting the goals and benchmarks of Social Studies?

Civics Curriculum

The availability of national social studies and civic standards helps to guide civic curriculum at the state and local level. The rigor and results of using these documents varies

greatly by state and district. The NAEP Civic Framework (1998, 2006, 2010) reports the following overview of civics curriculum in our country:

Examination of civics curricula, instructional practices, and earlier assessments of civic knowledge reveal that:

- × Although civics and government are often included as elements of social studies instruction in grades K-8; substantial treatment of those subjects is unusual.
- × American history courses tend to emphasize social history and devote insufficient time to political history, such as the nation's founding period and subsequent constitutional development.
- × Fewer than 25 states require secondary school students to complete at least a one-semester course in civics or government, although school and district requirements at the local level may be higher.
- × Assessments of student achievement in civics by national, state, and local education agencies tend to be inadequate and infrequent. (NAEP Civic Framework, 1998, p. 8)

Additionally, the “burying” of civics education within an already-packed social studies curriculum is complicated further by the limited time that schools today focus on any discipline of the social sciences. In this era of United States Department of Education mandates relating to the *No Child Left Behind Act of 2001* (NCLB), schools are focused on math and English literacy performance standards, leaving diminished time and resources dedicated to Social Studies content in elementary schools. Elementary faculty and teacher preparation programs now focus on teacher skills related to these key assessment mandates. Jack Jennings, president of the Center on Education Policy (2007), remarked,

What is tested is what is taught. Under *No Child Left Behind*, there is reading and math and then everything else. And because so much is riding on the reading and math included in the test, many schools have cut back time on other important

areas, which means that some students are not receiving a broad curriculum. (July 25, 2007, Press Release)

If testing determines what “gets taught”, then by extension, it also determines the focus of staff development. Accordingly, there is a scarcity of time and money for staff development in the area of civic education. The responsibility for an effective civic education program rests on the shoulders of effective classroom teachers well prepared to meet this challenge. Yet, without professional development support, elementary teachers are left to their own resources to teach important civic concepts to their students. With limited time and resources for civic education, efficient and effective integration of lessons is essential to reach the important civic goals and standards listed for all elementary school curricular programs. Civics education requires key vocabulary and related concepts. Teachers need to effectively teach this vocabulary to diverse learners in all classrooms. However, most teachers face complex and competing choices in all curricular disciplines when designing lessons for daily learning targets. Expectations have expanded at greater rates than the time allocated. This leaves severe time limitations, and preparation challenges, for even the most experienced elementary teachers. To best serve the need for civic literacy for all elementary students, elementary teachers need to focus on essential civic knowledge and understanding themselves in order to best utilize the limited time dedicated to the Social Studies curriculum.

Are Teachers Prepared?

An essential part of providing an effective civic education is the preparation of knowledgeable civic educators. Torney-Purta, Barber, and Richardson (2005) identified three important areas of teacher preparation including content knowledge, pedagogical content knowledge, and teacher beliefs, including confidence in teaching the curriculum. In short,

teachers need to know civics and strategies to teach civics. Most importantly, they need to be able to integrate civics into a complex list of subjects competing for a scarce resources and instructional time. Teacher preparation institutions and staff development initiatives need to support the essential concepts in social studies to promote best practices in elementary civic curriculum and instruction. National Standards in Social Studies and Civic Education provide standards, benchmarks, and resources to guide elementary teachers. Most elementary teachers rely on their high school government courses for content preparation in civics. Typical elementary education programs have minimal civic requirements and it is highly possible that future teachers had inadequate K-12 civic experiences, as they are products of a system now focused on reading and math. Additional courses at the college level are optional in many pre-service teacher education programs. Limited knowledge and experience with civic education logically undermines an elementary teacher's ability to teach civic concepts at the classroom level.

There are no known comprehensive measures of elementary teachers' civic knowledge at the time of this research. Teacher civic understanding in some cases measured a subset of social studies content knowledge. Though there is some data available for student knowledge, the data available does not include any measures of *teacher* understanding of important civic concepts.

Purpose of this Research Study

This study analyzed the outcomes of a Delphi project that identified and measured essential civic knowledge of elementary teachers. Specifically, this research evaluated use of the Delphi method to identify a set of civic constructs important for all elementary teachers to know and understand in order to be effective civic educators. This research also studied the Delphi panel's Civic Knowledge Inventory (CKI) as a measurement tool constructed to monitor

elementary teachers' civic knowledge of each identified civic construct. The creation of the Civic Knowledge Inventory will inform teacher preparation and professional development programs regarding levels of elementary teacher civic knowledge on these civic constructs. This identification of key civic constructs can help to efficiently prepare elementary teachers to effectively teach civic curriculum at the elementary level. In addition, a valid and reliable measurement tool can monitor current and future elementary teachers' progress on knowing and understanding the identified civic constructs as no known comprehensive measures of elementary teachers' civic knowledge are known today.

Thus, identifying essential civic concepts important for all elementary teachers to know and developing a tool to measure the progress of elementary teachers' civic knowledge can support the civic mission of our schools. "Ultimately, a free society must rely on the knowledge, skills and virtue of its citizen and those they elect to public office" (National Standards for Civics and Government, 1994 p. 1). The National Standards for Civics and Government (Center for Civic Education and U.S. Department of Education, 1994) prioritized list of civic knowledge, skills, and virtues for elementary teachers to teach is outlined in this document. However, a consistent understanding and modeled application of these standards was not evident in surveys of literature at this point. Minimal information exists on the civic learning or competence of elementary teachers. Valid and reliable test construction using a Delphi technique had rarely been studied at the time of this research. Therefore, this research was designed to answer the questions:

- 1: To what extent and in what ways is a modified Delphi technique useful in identifying the most important civic concepts elementary teachers should know to be effective civic educators?

2: To what extent and in what ways is the Delphi method a useful tool in the development of a valid and reliable instrument to measure the identified key civics concepts?

Without a systemic approach, we can only hope for support to improve or maintain an effective level of civic education. Using data from a valid and reliable measurement tool can inform a systematic approach to teacher preparation and professional development providing a focus on systemic needs of teacher preparation of key civic concepts. Additionally, the use of the Delphi technique to develop a valid and reliable measurement tool of the identified civic constructs, can contribute to future test construction using a Delphi process.

Background of the Study

During a professional gathering of civic educators in 2007, university faculty began an informal discussion about concerns with the inconsistent civics preparation in many elementary teacher preparation programs. A debate followed regarding the identification of the essential civics concepts that all elementary teachers should know to be effective civic educators. The discussion revealed that there was not a readily available list of essential civics concepts to consistently measure civic knowledge across teacher education programs. The group agreed that there was no information available regarding the level of civic knowledge and understanding of graduating pre-service teachers.

Two primary questions from this discussion became the motivation of the Delphi project. The primary question was “What exactly are the important civics concepts all elementary teachers should know and how can we measure this knowledge?” Secondly, “How might we

effectively use the collective wisdom of expert civic educators to efficiently and effectively measure elementary teacher civic knowledge on important civic constructs?”

This discussion developed into an action plan led by Dr. Michael Anderson and Dr. Tom Vontz, who requested financial support from the Center for Civics Education (CCE) through a special development grant. The proposed action plan accepted, outlined the “big idea” of using civics experts to identify key concepts and design a measurement tool to determine elementary teacher knowledge and understanding of these concepts. A modified Delphi method via the Internet was the chosen process of accomplishing the project goals. The outcomes of the Delphi project became the focus of this research study.

The modified Delphi protocol selected for this project includes the use of a panel of eight selected civics education experts willing to collaboratively identify important civics concepts all elementary teachers should know and understand to be effective civics educators. Again challenged, the Delphi panel constructed an instrument to measure elementary teachers’ knowledge and understanding of these important civics concepts. Each panelist earned a \$1,000.00 stipend and signed an agreement promising that their work contributions would remain anonymous.

This study describes the use of the Delphi method as a process used to identify key civic knowledge elementary teachers need to know and analyzed the performance of the inventory created as a measurement tool of these concepts. Success was analyzed through various criteria including reliability, validity evidence and student interviews. Evidence collected during instrument development involved administering an item pool to 89 pre-service elementary teachers. This provided data for an item analysis to determine item retention. An item analysis including item discrimination, item difficulty, and item response distribution patterns determined

changes to the CKI. Revisions included deletions, replacements, and modifications of items on the CKI. Five seniors taking the final CKI provided information regarding question clarity and the effectiveness of item distractors, or incorrect responses.

Research Design

This section provides a description of the Delphi project design as it relates to this research study. For a more extensive discussion of the research design, see Chapter Three. Eight civic educators were invited to participate in this modified Delphi study. Over six months they participated in 14 rounds of anonymous deliberation and feedback. Their tasks: 1) identify and clearly define the most important key civic concepts for elementary school teachers and 2) design a valid and reliable multiple-choice instrument to measure the identified concepts.

A panel of eight civic experts worked over six months via the Internet to identify important civic concepts that all elementary teachers should know to be effective civic educators. They worked from individual ideas to group consensus in creating a concept map that was then used to design an aligned measurement tool. This tool was then assessed after data from 89 college seniors studying to be elementary teachers responded to the item pool created by the Delphi Panel. An item analysis was completed on each item to determine if it was retained or removed from the item pool. Forty-seven items were recommended to be included in the final CKI. This instrument will be available for further study during the 2011-2012 academic year.

Research Timeline

Delphi Panel selects Civic Concepts: September-May, 2007

Preliminary Data Collection: Spring, 2008

Data Analysis: Fall, 2009

Final Instrument: Spring, 2010

Release CKI Assessment: Spring, 2011

Professional Significance of the Study

This study is significant to civic education's efforts to support the civic mission of our nation's public schools. The teachers leading curriculum and instruction in elementary schools must be prepared to be the guardians of the founding mission of our schools dedicated to developing skilled and knowledgeable citizens. Therefore, there is a need to determine the level of knowledge and understanding of key civic concepts of elementary teachers. The purpose of the CKI is to provide a concept map as well as a research tool to inform teacher preparation programs, professional development initiatives, and individual teachers striving to prepare 21st century citizens. A successful use of the Delphi method to create the CKI provides useful data to inform both novice and experienced elementary teachers regarding their level of civic knowledge.

Primarily, though, this study provides an analysis of the usefulness of a modified Delphi process to identify important civic concepts and to create a reliable, valid test that can inform teacher preparation by providing feedback on future teacher preparation in civic education. However, secondarily, this research becomes a case study of the CKI's construction using the Delphi method and Internet allowing for easy and affordable participation of distant experts in an "on-demand" time schedule. This project may inform future test constructors interested in the Delphi method.

Limitations

This study is limited in a number of ways. First, despite use of criteria for panel selection, the study was limited by the knowledge, skills, and perspectives of the eight civic educators selected for this study. The panel was not inclusive of experienced elementary civic educators or professional test writers. Panel experts invited to participate were selected predominately based on their civic expertise. A random selection from a larger pool of panelists may have been a desirable means to sample the population of civic educators. Invitation only may increase the possibilities of researcher bias. However, careful selection procedures used and anonymous deliberation did help to honor minority opinions present in the selected panel.

Second, the CKI is a multiple-choice instrument and there are some inherent limitations in using multiple-choice items. Multiple-choice testing is an efficient and economical format to sample elementary teacher candidate knowledge. However, this format cannot measure other important attributes of civic education preparation such as civic participation, application, or dispositions that are important parts of civic education. In addition, the multiple-choice items were limited in measuring levels of thinking. According to Bloom's revised taxonomy, (Anderson and Krathwohl, 2001) knowledge and understanding are the levels that a multiple-choice tool can measure (see Table: 2.1).

Third, the civic education panelists possessed varying degrees of experience with test construction. All panelists had some prior experience with designing assessments and constructing test items to assess student knowledge. To help address this limitation a test-preparation document provided a reference for designing high-quality multiple-choice items and was mandatory for all panelists to read.

Delimitations

This measurement tool was designed to provide a sampling of civic knowledge. Civic knowledge is foundational to civic dispositions and participation of teachers who share the responsibility for developing civic literacy of our youngest citizens. The CKI's purpose is to measure elementary teachers' knowledge and understanding of identified civic constructs. This instrument does not measure higher-level thinking beyond the understanding of concepts or application of civic skills or levels of civic dispositions (Blooms Revised Taxonomy, 2001).

Additionally, this research project administered the CKI item pool to elementary pre-service teachers during their senior year. However, the CKI measures the knowledge level of selected civic constructs at any levels of teaching experience. The intended use of the CKI does not include secondary teachers concentrating on the social sciences who have had multiple civic courses.

Terms

Social Studies: In 1992, the Board of Directors of National Council for the Social Studies, the primary membership organization for social studies educators, adopted the following definition:

Social studies are the integrated study of the social sciences and humanities to promote civic competence. Within the school program, social studies provides coordinated, systematic study drawing upon such disciplines as anthropology, archaeology, economics, geography, history, law, philosophy, political science, psychology, religion, and sociology, as well as appropriate content from the humanities, mathematics, and natural sciences. The primary purpose of social studies is to help young people develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world. (National Council for the Social Studies, 1992 p.1)

Civic Education: Civic education is the effective preparation of citizens to fulfill their responsibilities to sustain and enhance self-government. The NAEP Civics Framework (2006) acknowledges that our society has many sources of civic education including the family unit, religious institutions, media business and professional organizations, labor unions, and community organizations. However, the NAEP Framework (2006) also clearly states, “The schools, however, have a special and historic responsibility for the development of citizenship. If the society and its schools fail in their civic mission, then the constitutional democracy will be at risk” (p. ix). According to CIRCLE (2002, CCE, p. 10) participants, the goals of civic education would include the following big ideas. Competent and responsible citizens:

...are informed and thoughtful; have a grasp and an appreciation of history and the fundamental processes of American democracy; have an understanding and awareness of public and community issues; and have the ability to obtain information, think critically, and enter into dialogue among others with different perspectives, participate in their communities through membership in or contributions to organizations working to address an array of cultural, social, political, and religious interests and beliefs .act politically by having the skills, knowledge, and commitment needed to accomplish public purposes, such as group problem solving, public speaking, petitioning and protesting, and voting have moral and civic virtues such as concern for the rights and welfare of others, social responsibility, tolerance. (CIRCLE, 2002, p.10)

Civic Virtue: NAEP Civics Framework considers civic virtues competencies to be comprised of civic knowledge, civic skills, and civic dispositions (Civic Framework for NAEP, 2006, p. x). Civic virtue refers to what Alexis de Tocqueville called “habits of the heart,” that is, a commitment to democratic principles and values that manifests itself in the everyday lives of citizens. A focus on knowledge and skills alone is insufficient for the task of civic education. Civic education must also foster civic character in citizens.

Civic Dispositions: Attitudes and “habits of mind” of citizens that are conducive to the healthy functioning and common good of the democratic system are said to be “civic dispositions”.

Civic Commitments: According to CIVITAS civic commitments refers to the free-choices and dedication of the citizen to the principal ideals and values of the American constitutional democracy.

Civic virtue is distinct from those virtues that are relevant to private or personal lives, such as courage and honesty. These commitments and dispositions are imperative for two reasons:

They enable the political process to work effectively to promote the common good. They contribute to the realization of the fundamental ideals of the American political system including protection of the rights of the individual. (CIVITAS, Center for Civic Education, Executive Summary, 1991, p. 2)

Democracy: The meaning of democracy has evolved over the past 200 years. The Center for Civic Education, *Elements of Democracy* (2006), refers to governments with free and fair elections in which all adult citizens can stand for office, vote, and meet the other criteria of a democracy including limits to government and rule of law. “The principal purposes for which the People establish democratic government are the protection and promotion of their rights, interests and welfare. The overall concept of modern democracy has three principal parts: ‘democracy,’ ‘constitutionalism,’ and ‘liberalism’” (Elements of Democracy, 2006,p. 12).

Democratic Republic: The Center for Civic Education, *Elements of Democracy* (2006), defines a democratic republic as a form of government with no monarch, yet governed by representatives of a sovereign people. Representatives chosen by adult citizens represent them and all requirements of a democracy are present. A country can be both a republic and a democracy (Elements of Democracy, 2006, p.32).

Elementary Pre-service Teacher: Teacher candidates enrolled in four year college level program preparing them for teaching grades kindergarten through sixth.

Delphi method: Gordon and Helmer (1964) describe this technique as a means to obtain the most reliable consensus of a group of experts by a series of intensive questionnaires interspersed with controlled opinion feedback (Gordon and Helmer, 1964, pp. 1-30).

National Civic Standards: National Assessment of Educational Progress's Civic Framework (1994) presents a comprehensive K-12 outline of standards and outcomes for grades K-12 published by the Center for Civic Education (NAEP Civics Framework, 1994, pp. 2-50).

National Council of Social Studies Standards the National Council of Social Studies (NCSS, 1992) published a framework of standards and curriculum integrating the social sciences of history, geography, civics-government, and economics (NCSS, 1992, Introduction).

Item Analysis: Hannah and Dettmer (2005) defines an item analysis as a process that can be used to improve test quality by allowing for more informed decisions about which items should be retained and which should be edited or replaced. "Insight into examinees' option selections, characteristics of good questions and item-writing errors are contributions that item analysis offers test makers" (Hannah and Dettmer, 2005, p. 251). Item analysis in instrument construction could include item discrimination, item difficulty, and item response distribution.

Item Difficulty: Krathwohl (2009) defines item difficulty measures as a process to identify items that were too easy or too hard by examining the percentage passing a test item. The percentage of passage for each item determines the item difficulty index. Unless the test measure has very high internal consistency, items with very high and low difficulty index—too hard or too easy for most students—contribute less to the validity and reliability of the instrument than do items in the middle of the difficulty index (Krathwohl, 2009, p. 418).

Reliability: Hannah and Dettmer (2005) define reliability as the “consistency” with which a device or procedure measures what it measures (Hannah and Dettmer, 2005, p. 6).

Validity: Hannah and Dettmer (2005) define validity as the concern to which an instrument measures what it is intended to assess (Hannah and Dettmer, 2005, p. 6).

Item Discrimination: Krathwohl (2009) states the contribution of the item to predictive validity, expressed by an item discrimination index. The item discrimination index shows how well an item predicts or contributes to the total score (Krathwohl, p. 418). Items showing low correlation with the total score are measuring something other than what the other test items are measuring.

Item Response Distribution Patterns: This includes the calculation of test item responses per distractor. Data compares the number of responses per distractor and the number of respondents available. Patterns showing high numbers of wrong responses would alert test makers to look more closely at question stems and choices. Items with high numbers of correct responses may not have effective distractors.

Pedagogical Content Knowledge: Shulman (1986) defines “pedagogical content knowledge” as the most regularly taught topics in one’s subject area, the most useful forms of representations for those ideas, the most powerful analogies, illustrations, examples and explanations and demonstrations – in a word, ways of representing and formulating the subject that make it comprehensible to others (Shulman, 1986, pp. 9-10).

Citizenship: National Assessment of Educational Progress Civics Framework (2006) defines citizenship as a commitment to and participation in a community’s civic life—it is the engine of constitutional democracy and free society (NAEP Civics Framework, 2006, p. 1).

Summary

Civic education is essential to a democratic government. Public education plays a major role in providing all citizens access to civic literacy. Elementary teachers are responsible for providing opportunities for all students to accomplish foundational civic skills based on national civic standards at the elementary level. Elementary teachers need to be prepared to effectively teach civic education at the elementary level. Effective civic educators need to have a deep understanding of key civic knowledge to design lessons and assessments that promote civic learning.

Presently there are no measures of civic knowledge designed specifically for future or practicing elementary education teachers. There is a need for determining essential civic knowledge that all elementary teachers need to know to be effective civic educators; this determination, then, should be the focus of pre-service programs' address of essential civic concepts. Finally, measuring future teachers' civic knowledge against these criteria can guide future initiatives to address future teacher needs while preparing to teach civics.

This project proposes a list of core civic concepts that all elementary teachers need to know and offers a valid and reliable tool, the CKI, to measure elementary teachers' understanding of these core civics concepts. This study will examine the level of success the Delphi technique reached while identifying key civic constructs and measurement tool aligned to these constructs. Data from a valid and reliable CKI and foundational "Framework of Core Civic Constructs" identified by the Delphi Panel provide valuable tools both for teacher preparation institutions and for those who provide in-service professional development to elementary school teachers.

CHAPTER 2: Review of Literature

So knowledgeable citizens are better citizens of a democracy in regard to their possession and use of civic skills and civic dispositions...

(Patrick and Vontz, 2001, p.41)

This research encompasses a variety of topics related to civic education and teacher preparation needs to monitor and support elementary teachers' civic knowledge. This review of literature begins by documenting the civic mission of public schools, summarizing K-12 civic standards, and highlighting national assessments now in place to measure student progress towards civic standards. Next explored are issues in teacher preparation for teaching civic education, and links to the importance of teacher content knowledge as a foundation upon which to build civic literacy. Also discussed are need to assess teachers' civic knowledge to determine professional needs of elementary teachers to effectively support the civic missions of our schools. The Delphi technique is then presented as the Delphi project's protocol that provides for rounds of discourse between civic experts tasked with identifying essential civic knowledge elementary teachers should know and creating a multiple-choice inventory to measure pre-service elementary teachers understanding of these concepts. In sum, topics explored in this chapter include: background on the civic mission of our schools, the state of civic education, K-12 civic standards, an overview of K-12 civic education assessments, elementary teacher standards for civics, teacher preparation practices in civics and measures of teachers' civic knowledge and dispositions. An overview of the Delphi method as a process for reaching expert consensus is included along with typical test development protocol, and test evaluation.

The Civic Mission of Public Education

Civic education is the effective preparation of citizens to fulfill their responsibilities to sustain and enhance self-government (NAEP, Civics Framework, 2006, p. viii). The NAEP Framework for Civics, designed by civic experts, provides guidelines for K-12 curriculum and assessment. The NAEP Framework (2006) states that teacher responsibilities remain salient in the support of civic education by stating, “The schools ... have a special and historic responsibility for the development of citizenship. If the society and its schools fail in their civic mission, then the constitutional democracy will be at risk” (NAEP, Civics, 2006, p. ix).

The NAEP civics assessments of 1998, 2006 and 2010 use the NAEP Civic Framework (2010) and include questions that aligned with key civic concepts for all citizens. These questions form the framework for all NAEP assessments of civic education since 1998. Using this consistent civic framework over time has allowed NAEP data to be collected and review it for trends or changes over time. The NAEP Civic Framework’s fundamental guiding questions are as follows:

1. What is civic life, politics, and government?
2. What are the foundations of the American political system?
3. How does the government established by the Constitution embody the purposes, values, and principles of American democracy?
4. What is the relationship of the United States to other nations and to world affairs?
5. What are the roles of citizens in American democracy?

(NAEP Civic Framework, 1998, p.1)

NAEP Civic Assessment (1998, 2006) also included civic skills. This component focuses on the use of knowledge to think and act effectively and in a reasoned manner in response to the challenges of civic life in a constitutional democracy. The framework distinguishes three types of intellectual skills: a. Identifying and describing, b. Explaining and analyzing and c. Evaluating, taking, and defending a position (NAEP, Civic Framework, 1998, pp. 23-25).

Finally, the NAEP Civic Assessment outlines important civic dispositions. As with civic skills, NAEP cannot assess students' civic dispositions directly. Therefore, certain assessment exercises were designed to measure students' knowledge and understanding of the importance of civic dispositions. The Nation's Report Card, NAEP Civics (2006 and 2010), identified five dispositions:

1. Becoming an independent member of society;
 2. Assuming the personal, political, and economic responsibilities of a citizen;
 3. Respecting individual worth and human dignity;
 4. Participating in civic affairs in an informed, thoughtful, and effective manner; and
 5. Promoting the healthy functioning of American constitutional democracy.
- (NAEP, 2006, p. 3)

The results of the NAEP Civics assessment (2006) showed 73% of fourth graders scored at or above "basic" performance levels with 24% demonstrating above proficiency levels. The eighth graders demonstrated 70% at or above basic and 22% above proficient. The fourth grade scores showed some improvement over the 1998 scores especially for the lower performing students. Eighth grade scores did not improve from the 1998 NAEP results (p. 1).

Civics and government standards, known to be central to the purpose of our schools, realize little attention compared to the basic skills of reading and mathematics. Too often, U.S. educators consider civics and government curriculum "incidental" outcomes of schooling. However, teachers cannot develop a deep understanding of knowledge, skills, and dispositions of citizenship accidentally. Civic learning requires explicit and consistent experience in the curriculum of the schools. Moreover, teachers need to be prepared to effectively design and deliver these experiences. The National Assessment of Educational Progress (NAEP, Civics, 1998) reports that 50 states have standards that relate to civic education, yet only 65% of our states require high school students to take a semester of civics and government.

Students in less privileged socio-economic circumstances need learning experiences to develop their civic knowledge, skills, and dispositions considered fundamental to public schools.

For these students, civic education at the elementary and secondary level is often their only access to a formal civic education. However, there are limited “informal” opportunities for civic education in neighborhoods where resources are limited and the focus is on survival (NAEP, Executive Summary, 2006, p. 7). For students in less privileged socio-economic circumstances, it becomes even more important to foster civic knowledge, skills, and dispositions. For these students, civic education at the elementary and secondary level is often their only access to a formal civic education. Fourth-graders from families in two lower-income levels (eligible for free lunch or reduced-price school lunches) had lower civics scores in 2006 and 2010 than students from higher-income families. At grade 8, the pattern is similar. The average scores for students from both lower-income levels were lower than that of students from higher-income families. The score gaps between the lowest income level (eligible for free lunch) and the highest level (not eligible for free lunch) were 28 points at grade 4 and 30 points at grade 8 (NAEP Civics Assessment, 2006. p. 14).

Civic education, as a subject that is central to the purpose of public education, needs effective instruction throughout our K-12 school systems. Educators need to be prepared to effectively design and deliver these experiences. NAEP CIVICS assessment findings from 1998 also report a mediocre performance in the area of civics. In 2006, the NAEP civics exam gathered data showing fourth graders gaining in basic performance on the civic exam. Eighth and twelfth grade results showed no significant gains (NAEP Executive Summary, 2006, p. 7).

National Council of the Social Studies Standards

An important aspect of the informal curriculum is the “...governance of the school community and embodiment of the fundamental values” (National Civic Standards, 1994, p. 1).

All stakeholders in the learning communities of our schools need to demonstrate behavior in accordance with constitutional values and ideals. As schools model governance and related skills, direct instruction to bridge these authentic experiences to civics outside the school is needed to help students understand how their city, county, state, and country function in a democratic society. Elementary teachers need to facilitate the modeling and transference of civic ideals from the school culture to government at the local, state and national level.

The National Council of Social Studies defines Social Studies with civic mission as a focus of all social sciences: “Social Studies is the integrated study of the social sciences and humanities to promote civic competence...(NCSS, 1994 p.1).” The National Social Studies Standard (NCSS) definition continues to include all the related disciplines including economics, geography, and history before concluding with:

The primary purpose of social studies is to help young people develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world. (NCSS Standards, p. vii)

The National Council of the Social Studies (NCSS) standards document called *Expectations of Excellence: Curriculum Standards for Social Studies* continues to explain that the “essence of Social Studies promotes knowledge of and the involvement in civic affairs. And, because civic issues—such as health care, crime, and foreign policy—are multiple-disciplinary in nature, understanding these issues and developing resolutions to them requires a multidisciplinary education” (National Council for the Social Studies, 1994, p. 3). The NCSS Social Studies standards document promote the integration of the social science disciplines by presented integrated themes. The disciplines included are anthropology, archaeology, economics, geography, history, law, philosophy, political science, psychology, religion, sociology, as well as appropriate content from the humanities, mathematics, and natural sciences.

Although civic concepts connected to many of the ten themes indirectly, two of the ten themes focus explicitly on civic education concepts. NCSS Theme V: Individuals, Groups and Institutions and NCSS Theme VI: Power, Authority and Governance directly connect to civic education concepts (NCSS *Expectations of Excellence: Curriculum Standards for Social Studies*, 1994 p. 3).

Goals 2000: Educate America Act

The civic mission of the schools has been affirmed many times in our history including the National Education Goals included in the Goals 2000: Educate America Act of 1994. This legislation set eight goals or outcomes for our children. Goals 3 and 6 are dedicated to content supporting civic and government curriculum and life long civic literacy.

The Goals 2000: Educate America Act (1994) states,

Goal 3: Student Achievement and Citizenship

By the year 2000, all students will leave grade 4, 8 and 12 having demonstrated competency over challenging subject matter including...civic and government...so that they may be prepared for responsible citizenship, further learning and productive employment. All students will be involved in activities that promote and demonstrate...good citizenship, community service and personal responsibility. (The Goals 200: Educate America Act, 1994, pp. 103-227)

Goal 6: Adult Literacy and Life Long Learning

By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to...exercise the rights and responsibilities of citizenship. (The Goals 2000: Educate America Act, 1994 -P.L. pp. 103-227)

Today, the political agenda for the social sciences curriculum seems to reflect a shift towards a “traditional teaching of American history” involving key leadership and leaving out stories of minorities, women, and the ordinary workers. If money was tied to the testing of this

traditional fact of political leaders, then they are aligning their teaching to a test that is aligned to a very narrow curriculum” (Butts, 2006, p. 9).

One of America’s leading authorities on civic education, R. Freeman Butts, highlights there was no emphasis in any K-12 curriculum at any level that would align to the President’s mission of developing democratic citizenship. He then goes on to question the American response to the events of September 11, 2001, which still did not call for the strengthening of American citizenship: “A single focused war against illiteracy remains the major domestic purpose of the No Child Left Behind Act” (Butts, 2006, p. 10). Leaders in civic education including Butts challenge educators to:

...Work harder than ever to prepare citizens to prepare and improve constitutional democracy, which has been an important stated purpose of K-12 education ever since there was a United States of America. While education for democratic citizenship may be a purpose of all institutional schooling in the United States, it is peculiarly the prime function of public education institutions that are designed to provide universal, free, compulsory, common schooling, equitable and accessible for all persons regardless of race, ethnicity, religion, gender, sexual orientation, or social, physical or economic conditions. ...Since the quality and the training of teachers are the most important elements in achieving educational goals in elementary and secondary schools, it is necessary that education for democracy should be the core of the studies that all prospective teachers undergo in their liberal arts and teacher education programs. (Butts, 2006, pp. 16-17)

Butts supports the work of NCSS and NCCE standards committees who join him in sending clear messages that our educational system should be designed to provide the civic knowledge, civic values, and civic skills of citizenship in our constitutional democracy. He reminds us that all educators throughout the system will be responsible for achieving this goal. The first step in achieving the civic mission of our public schools in a purposeful, systemic way begins in our elementary schools.

American history marks 43rd President of the United States George W. Bush’s challenge to our nation on inauguration night to live up to our civic responsibilities: “We are bound by

ideals that teach us what it means to be citizens. These essential civic ideals are for every child. Every citizen must uphold them. ... I ask you to be citizens” (Bush, Inauguration Speech, 2001). Support of civic education, once again, becomes a challenge and responsibility for all teachers.

National Civic Standards

The National Standards for Civics and Government published by the Center for Civic Education (CCE, 1994) supports civic knowledge, civic values, and skills. These standards should be at the core of our K-12 educational programs and professional development. These national standards quote many famous leaders including J. F. Kennedy, who said, “There is an old saying that the course of civilization is a race between catastrophe and education. In a democracy such as ours, we must make sure that education wins the race” (Valley Forge Country Club, 1960).

The National Standards for Civics and Government (CCE, 1994) declare the civic mission of schools as “...essential to the preservation and improvement of American constitutional democracy.” This statement is Following this statement are the “goals of civic education.”

The goal of education in civics and government is informed, responsible participation in political life by competent citizens committed to the fundamental values and principles of American constitutional democracy. Their effective and responsible participation requires the acquisition of a body of knowledge and of intellectual and participatory skills. Effective and responsible participation also is furthered by development of certain dispositions or traits of character that enhance the individual’s capacity to participate in the political process and contribute to the healthy functioning of the political system and improvement of society. (National Standards for Civics and Government, 1994. p. 1)

Promoting civic literacy is the responsibility of many institutions. The public and private groups involved include: the family, religious institutions, community service agencies, and the media. However, the schools have played the most essential role by providing students

throughout the system with both formal and informal civic instruction. Elementary teachers determine how they use time and resources toward civic standards.

An important aspect of informal curriculum considered in the National Standards for Civics and Government is the "...governance of the school community and embodiment of the fundamental values" (National Civic Standards, 1994, p. 1). All stakeholders in the learning communities of our schools need to demonstrate behavior in accordance with the constitutional values and ideals.

Butts (2006) endorsed the National Standards for Civics and Government by saying, "...[The National Standards] as a guideline deals with the civic knowledge, civic skills, and civic skills of participation that can and should be the core of education from kindergarten to high school and of teacher education for all qualified and certified teachers" (Butts, 2006, p. 9).

A closer look at the National Standards for Civics and Government reminds us of our country's foundational need for civic education. Upon opening the cover of this well-accepted civic curricular framework, one reads the following quote from Thomas Jefferson:

I know no safe depository of the ultimate powers of the society but the people themselves; and if we think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them, but to inform their discretion by education. This is the true corrective of abuses of constitutional power. (Thomas Jefferson to William C. Jarvis, 1820. ME 15:278)

The Center for Civic Education national civic standards begin with the following logic:

Although it has been argued that the establishment of the proper institutions is sufficient to maintain a free society, Thomas Jefferson, James Madison, John Adams, and others recognized that even the most well-designed institutions are not sufficient. Ultimately, a free society must rely on the knowledge, skills, and virtue of its citizens and those they elect to public office. Civic education, therefore, is essential to the preservation and improvement of American constitutional democracy. (NCCE, National Standards for Civics and Government, 1994, p. I)

Formal civic instruction, defined by the National Standards for Civics and Government, considered instruction providing a “basic understanding of civic life, politics, and government” is critical to our country. These experiences should help students to understand their world. The national standards have the expectation that formal instruction will:

...help them understand the workings of their own and other political systems as well as the relationship of American politics and government to world affairs. ...a basis for understanding the rights and responsibilities of citizens in American constitutional democracy and a framework for competent and responsible participation. (National Civic Standards, 1994, p. 1)

This formal instruction should begin at the elementary level and include experiences that teach students how to participate in their own school and community governance. The integration of the other social studies, including history and economics, and literacy initiatives all should supplement the learning of civic concepts, yet not replace the direct instruction outlined in the National Standards for Civics and Government (CCE, 1994).

Call for Continuous Progress Towards the Civic Standards

Abraham Lincoln reminds us of our civic mission upon sharing his definition of democracy when he states: “Governance of the people, for the people and by the people shall not perish from the Earth” (Abraham Lincoln, 1809-1865). Lincoln’s definition succinctly summarizes the rights and duty of citizens in a democracy. There is a need for knowledge, skills, and dispositions that provide a foundation for this citizenry to contribute and control their government. Lincoln’s words have little meaning or impact if the people do not possess the knowledge or skill along with the traits of character and dispositions needed to successfully accomplish their civic responsibility.

The ideal of a common “Civic Morality” is discussed by Butts (2006) as that which:

... teaches us to obey the law, shoulder responsibility for self, family, and community; practice respect and compassion for diverse others; whatever their backgrounds or affiliations; and follow the dictates of equal justice, honesty, and truth. Above all, it requires citizens to promote the public good, protect freedom and individual rights and practice an enlarged ennobling version of patriotism. The best vision of the institution that can do this job is a public education system devoted to the civic, public policy business of democratic government. It is the only long-term way in which to develop a citizenry that will make government and politics themselves more democratic than they are now. (p. 15)

CIVITAS: A Framework for Civic Education

The call for a more rigorous civic curriculum to address the growing civic needs of public education was answered by a collaborative curriculum project in 1991 called CIVITAS:

Framework for Civic Education (CCE, 1991). This publication provided a foundation for the National Standards for Civics and Government (Center for Civic Education, 1994). This comprehensive document presents three strands of civic education: Civic Virtue, Civic Participation, and Civic Knowledge and Skill. It includes the idea of civic virtues along with knowledge, skills, and action. Together with the National Standards, the CIVITAS framework provides a structure for civic education at all level and in all schools. Accordingly, “these key dimensions of education can advance a responsible democratic citizenry, a healthy democratic government, and a vibrant democratic civil society” (Butts, 2006, p. 18).

Although Butts words call for action, the focus of educational resources have fallen short of supporting the mission of promoting civic knowledge, skills, and dispositions in our schools and community. We have a mission, standards, and schools working hard to promote important agendas to improve literacy in mathematics and reading. Federal mandates such as *No Child Left Behind Act* (United States Department of Education, 2001) call for accountability in student performance in reading and mathematics and directly link student testing results to local school

financing. Social Studies content, tested in some states, is less monitored than “high stakes” testing in tested subject areas like reading and math. Therefore, teacher preparation and in-service are dedicated to mathematics and reading diagnosis as student performances in these areas are systematically measured by mandatory tests that document school progress toward ever rising goals. The result of the present context of “back to basics” assessment and accountability requirements at the federal level in math and reading leaves little public attention to civic knowledge, skills, or dispositions in most schools at the local district and state level. What time is available for civics in elementary schools requires highly skilled civic teachers.

Assessing K-12 Civic Literacy in the United States

Many public schools do sample student knowledge of the social science, which often does include civic education. Each state measures student content knowledge using a variety of techniques and instruments. Typically, civics is a part of a history assessment and accounts for a small number of items on a test given to a selected grade level. Of course, understanding of civic concepts are integrated into history, economics, and literature curriculum. There is an assumption that civic knowledge and skills are a “by-product” of other disciplines and an outcome of participating in public schools focused on other disciplines. However, students have little access to a systematic, direct instruction directed at building a sustained foundation in civics literacy.

The Center for Civic Education’s leadership with the CIVITAS International Programs has developed and delivered exemplary civic education curricula to students throughout the United States and worldwide. The CIVITAS survey indicated that a student’s civic disposition may be established as early as age 15 (CIVITAS, 1991). Civic knowledge and skills provide the underpinnings for civic disposition. Findings of this report also noted that thirty-nine states have

civic or government class requirements for high school graduation. Survey results also noted and revealed that 64% of 15- 26 year olds have taken a civic class. Those that did take a class in civics are much more likely to believe they are responsible for improving society. The civic-educated high school students also had a better understanding of the qualities of a good citizen (CIVITAS, 1991). Reported that many teacher education programs for elementary level certification do not require additional civic or government courses; therefore, future teachers rely on civics information learned in their K-12 education program.

Many states do not prescribe any specific course requirements for high school graduates. Some states may mandate the adoption of standards containing civics topics, even if they do not specifically require students to take a government course in high school. Kentucky, Maine, Minnesota, Oklahoma, Oregon, Utah, Virginia, Washington, and West Virginia are all states that do not specifically require government courses in high school, but do mandate standards that contain civics topics. Nevertheless, the fact that nearly half of all states do not even require a high school government course confirms states' inadequate attention to instruction in civics and government. Accordingly, most teacher candidates arrive to college with minimal civic experiences, and have no further requirements, leaving these kinds of decisions to each teacher preparation institution and/or state-licensing agency.

National Assessment of Educational Progress (NAEP): Civics Framework

Measures of student civic knowledge completed at grades four, nine, and twelve by the National Assessment of Educational Progress (NAEP), assess civic education in 1998, 2006 and 2010. This project used the NAEP Civics Framework developed by the National Assessment Governing Board, and was conducted under contract by the Council of Chief State School Officers in conjunction with the Center for Civic Education. The NAEP Civic framework, used

to design assessments for the grades tested, resulted in data describing mediocre performances for all ages. The NAEP Civics assessment “measures knowledge and skill, not behaviors or convictions” (NAEP, Civics 2006, p. X). Results on this measure demonstrated concerns with student performance in the area of civics. This NAEP measure, repeated in the year 2006 and 2010, used a very similar NAEP Framework for Civics (NAEP-CIVICS, 2006, 2010).

To do well on this assessment, students will have to show broad knowledge of the American constitutional system and of the working of our civil society. They will also be required to demonstrate a range of intellectual skills—identifying and describing important information, explaining and analyzing it and evaluating information and defending positions with appropriate evidence and careful reasoning. The National Assessment Governing Board that oversees the NAEP Civics Project hopes the results will be used to improve civic education. (NAEP Civics Project, 1998, 2006)

NAEP CIVIC measures supported the belief that students form their civic dispositions by ninth grade. There have been measures of ninth graders that demonstrate consistent gaps in civic knowledge (NAEP, 1999, 2006, 2010). The role of elementary teachers is key in laying the foundation of civic knowledge, skills, and dispositions that are further developed by middle school and high school curriculum and learning experiences and needs to be supported as we strive to improve student understanding of civic concepts K-12.

Representative Democracy in America Project

National surveys and assessments mark a low level of performance on civic knowledge, understanding, and engagement. A survey conducted as part of the Representative Democracy in America project, a joint effort of the Trust for Representative Democracy of the National Conference of State Legislatures, the Center of Civic Education, and the Center of Congress at Indiana University, reported the baseline performance of citizenry to be revealed nationwide and generations deep.

This public survey shows that young people do not understand the ideals of citizenship, they are disengaged from the political process, they lack the knowledge necessary for effective self-government, and their appreciation and support of American democracy is limited, at best. The older generations have failed to teach the ideals of citizenship to the next generation. (Kurtz, Rosenthal, Zukin, 2003, p.1)

Schools are not the only source of teaching citizenship. The responsibility is shared with family, and communities. However, this research underlines the need for schools to address students' civic literacy. All teachers need to be prepared to efficiently address this problem.

International IEA Civic Study

In 1999, the United States and 27 other countries participated in the International IEA Civic Education Study (IEA, 1999). This international assessment, designed to measure the civic knowledge and skills of 14-year-olds, attitudes towards democracy and citizenship. The assessment followed case studies conducted by the International Association for the Evaluation of Educational Achievement (IEA, 1999). A study done by this group involved 2,811 US students in 124 public and private schools in the beginning of 9th grade yielded results showing that US students scored significantly higher than the international average on the total civic knowledge scale. However, this assessment also showed that in 1999, 70 percent of U.S. schools serving ninth graders reported having a ninth-grade civic related subject requirement, and students in low poverty schools out performed students in high poverty schools. In addition, sixty-five percent of students reported studying social studies in school almost everyday. Twelve percent of students reported hardly studying social studies in school. Fifty-five percent of the schools reported ninth grade students were required to take 5 to 6 periods a week in civic-related subjects such as social studies, history, or civics. These studies show a relatively good performance in the international standings; however, it also uncovers inequities in our schools.

Data from all participating countries show a positive correlation between civic knowledge and participation in democratic life. Specifically, the more students know about fundamental democratic processes and institutions, the more likely they are to expect to vote when they become adults. (IEA, 1999 p. 8)

Other key findings of this study include; the majority of U.S. ninth-graders typically spent less than 1 hour a week on social studies homework. Students in U.S. schools were more likely to study domestic civic issues than international civic issues. U.S. students were more likely to report reading from a textbook or filling out worksheets when studying social studies than engaging in activities such as receiving visits from leaders or writing letters to give their opinion. Eighty-five percent of students reported being encouraged by teachers to make up their own minds about issues, and about two-thirds reported being encouraged by teachers to discuss political or social issues about which people have different opinions (What Democracy Means to Ninth-Graders, USDE, National Center for Educational Statistics, 2001, p. 17).

Teacher Preparation in Civic Education

The mission of civic education is one of the founding purposes of our public schools. Civic virtue, including civic knowledge and skills, seemed to loose focus during the 1960's and 1970's with emphasis on other subjects. There was little attention given to civic education in the 1980's and only some interest in service learning in the 1990's. The growing alienation of the public to the government brings this issue to the forefront of teacher education for the next decade. To monitor success in this area there is a need for increased focus on the civic education performance measures of students and teachers. Data gathered from civic knowledge measurement tools guide available resources for staff development effectively meet civic educator needs throughout the educational system. If public education institutions are serious

about accomplishing the civic mission, we must have an accurate account of civic knowledge of students, and the teachers trained to support student growth in civic education.

Teacher education is a key component to any systemic educational reform. Teacher preparation programs engage future teachers in content preparation, pedagogical practice, and on-going professional development or in-service throughout a teacher's professional career. Current research on teacher effectiveness calls for teacher education curriculum shaped by both what teachers need to learn and by how they learn (Darling-Hammond & Baratz-Snowden, 2005).

Teacher quality was a focus of teacher educators like Arthur Levine, president of Teacher's College, who stood up against attacks of federal influences on states to abandon pedagogical requirements for teachers. Levine (2002) says, "Teachers who know only subject matter are not qualified to enter our classrooms, nor are teachers who know only pedagogy. Our children need teachers who know both. This kind of dual qualification cannot be reserved only for the affluent" (Arthur Levine, president of Teachers College, Columbia University. New York Times, "Rookies in the Schools," June 29, 2002). Elementary civic teachers are essential to begin to bridge the civic literacy gaps in our schools by teaching important content by using effective pedagogy.

Teacher Content Knowledge

The Education Commission of the States (2003) reports that current researchers have strong agreement that teachers need adequate subject knowledge to be effective. The definition of "adequate subject knowledge" has not been clear in most disciplines. Most of the known research in this area relates to mathematics. This research provides support for a strong

foundation of subject-matter knowledge; the exact amount was not clear for each course or grade level (Education Commission of the State, 2003).

How might we think about the knowledge that grows in the minds of teachers, with special emphasis on content? I suggest we distinguish among three categories of content knowledge: a) subject matter content knowledge; b) pedagogical content knowledge; and c) curricular knowledge. Content knowledge refers to the amount and organization of knowledge per se in the minds of the teacher. (Schulman, 2004, p. 201)

According to Shulman (2004), teachers need to be able to define the accepted truths in a domain of knowledge as well as be able to explain why this knowledge is worth knowing and how it relates to other knowledge in this discipline and others in both theory and practice (p. 202). Shulman also underlines the assumption that most teachers begin with some expertise in the content they teach. He reminds us that this may be an unfounded assumption and the impact of varying degrees of competence in content knowledge should be a research priority for educators.

Additionally, Shulman (2004) describes pedagogical content knowledge as a second kind of content knowledge, which goes beyond knowledge of subject matter to include the dimensions of subject matter knowledge for teaching. Subject knowledge is a particular form of content knowledge that embodies the aspects of content unique to an area of study. Within the category of pedagogical content knowledge includes the topics typically taught and the most useful ways to represent these topics. A teacher must be able to make analogies, illustrations, examples, and explanations to make the content knowledge comprehensible to a given age group. A teacher must also know what leads to misconceptions and specifically what knowledge difficult to teach. (Shulman, 2004, p. 201)

Finally, Shulman (2004) highlights the idea that a teacher should understand his or her student's preconceptions and misconceptions for content knowledge typically taught within a

discipline. Accordingly, Schulman describes the third type of content knowledge as curriculum knowledge.

This knowledge is represented by the full range of programs designed for the teaching of particular subjects and topics at a given grade level. This knowledge includes a variety of instructional materials available in relation to those programs and the set of characteristics that serve as both indicators and contra-indicators for the use of particular curriculum or program material in a particular circumstance. (Schulman, pp. 203-204)

Elementary teachers need to know how to make civic and government standards meaningful and memorable at each grade level. Many resources are available as tools, however, only the well-prepared civic educator will know how to design, select and deliver available curriculum.

The scope of elementary teachers' civic knowledge and related conceptual understanding on selected constructs was one of the major focuses of this study. Of course, these dimensions link to process skills that increases exponentially across grade level curriculum. As typical in many content areas, grade level of civic curriculum is foundational for the following level grade goals. Teachers certified to teach grades kindergarten through sixth grade, need to be prepared for all levels of curriculum and all levels of thinking.

The social studies typically represent four related disciplines including geography, history, civics, and economics. The intermediate years of elementary school provide essential concepts for further education in the social sciences. To effectively teach foundational social science concepts to children, teachers need more than a survey course. They need to deeply understand both the "big ideas" of civics and how to teach about them well.

Prepared teachers bring civic knowledge, skills, and dispositions to students at the elementary level in a clear, concise, and effective manner. Therefore, being prepared to teach subject matter requires deep knowledge of the content itself, the process for learning this content,

and the nature of student thinking, reasoning and understanding, and performances within a subject area. These are teaching skills the foundations of “pedagogical content knowledge” teachers must have to make content assessable to students (Darling-Hammond & Baratz-Snowden, 2005, pp.18-19). Teacher education programs need to seek effective ways to address the need to better prepare future teachers. Colleges of Education need to address the growing need for a comprehensive and systemic approach to effectively promote civic literacy.

Teacher Education Support for Civic Education

What teachers know and can do is the most important influence on what students learn.
(What Matters Most, Teaching for America’s Future, 1996, p. 10)

Teacher licensure has also responded to the accountability movement of the past two decades. The Interstate New Teacher Assessment and Support Consortium (InTASC, 1992) standards outlined what “Novice” teachers should know and be able to do to be effective educators. “The teacher understands the central concepts, tools of inquiry and structures of the discipline he or she teaches and can create learning experiences that make these aspects of subject matter meaningful for students” (InTASC, 1992, p.1). Now there are standards for teacher of all developmental levels. “What distinguishes the beginning from the accomplished teacher is the degree of sophistication in the application of the knowledge and skills.” (InTASC, 2010, p.6)

The updated standards link teacher content knowledge to observable skills and performances.

Another key point is that these standards maintain the delineation of knowledge, dispositions, and performances as a way to probe the complexity of the teacher’s practice. The relationships among the three have been reframed, however, putting performance first—as the aspect that can be observed and assessed in teaching practice. The others were renamed. “Essential knowledge” signals the role of

declarative and procedural knowledge as necessary for effective practice and “critical dispositions” indicates that habits of professional action and moral commitments that underlie the performances play a key role in how teachers do, in fact, act in practice. (InTASC, 2010. p.6)

InTASC follows each standard with “performances”, “essential knowledge” and “critical dispositions” (See Standard #4). Standard #4 defines teacher content knowledge as follows: The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make these aspects of the discipline accessible and meaningful for learners to assure mastery of the content (InTASC Goal # 4, 2010, p.13). This definition describes the essential role that foundational knowledge plays in creating a successful learning opportunity for students within the discipline of civics and government (see Figure 2.1: InTASC Standard #4: Teacher Content Knowledge).

Figure 2.1: InTASC Standard #4: Teacher Content Knowledge

Standard #4: Content Knowledge	
The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make these aspects of the discipline accessible and meaningful for learners to assure mastery of the content.	
PERFORMANCES	ESSENTIAL KNOWLEDGE
<p>4(a) The teacher effectively uses multiple representations and explanations that capture key ideas in the discipline, guide learners through learning progressions, and promote each learner's achievement of content standards.</p> <p>4(b) The teacher engages students in learning experiences in the discipline(s) that encourage learners to understand, question, and analyze ideas from diverse perspectives so that they master the content.</p> <p>4(c) The teacher engages learners in applying methods of inquiry and standards of evidence used in the discipline.</p> <p>4(d) The teacher stimulates learner reflection on prior content knowledge, links new concepts to familiar concepts, and makes connections to learners' experiences.</p> <p>4(e) The teacher recognizes learner misconceptions in a discipline that interfere with learning, and creates experiences to build accurate conceptual understanding.</p> <p>4(f) The teacher evaluates and modifies instructional resources and curriculum materials for their comprehensiveness, accuracy for representing particular concepts in the discipline, and appropriateness for his/her learners.</p> <p>4(g) The teacher uses supplementary resources and technologies effectively to ensure accessibility and relevance for all learners.</p> <p>4(h) The teacher creates opportunities for students to learn, practice, and master academic language in their content.</p> <p>4(i) The teacher accesses school and/or district-based resources to evaluate the learner's content knowledge in their primary language.</p>	<p>4(j) The teacher understands major concepts, assumptions, debates, processes of inquiry, and ways of knowing that are central to the discipline(s) s/he teaches.</p> <p>4(k) The teacher understands common misconceptions in learning the discipline and how to guide learners to accurate conceptual understanding.</p> <p>4(l) The teacher knows and uses the academic language of the discipline and knows how to make it accessible to learners.</p> <p>4(m) The teacher knows how to integrate culturally relevant content to build on learners' background knowledge.</p> <p>4(n) The teacher has a deep knowledge of student content standards and learning progressions in the discipline(s) s/he teaches.</p>
	CRITICAL DISPOSITIONS
	<p>4(o) The teacher realizes that content knowledge is not a fixed body of facts but is complex, culturally situated, and ever evolving. S/he keeps abreast of new ideas and understandings in the field.</p> <p>4(p) The teacher appreciates multiple perspectives within the discipline and facilitates learners' critical analysis of these perspectives.</p> <p>4(q) The teacher recognizes the potential of bias in his/her representation of the discipline and seeks to appropriately address problems of bias.</p> <p>4(r) The teacher is committed to work toward each learner's mastery of disciplinary content and skills.</p>

InTASC Model Core Teaching Standards 13

There are few knowledge measures prepared by national test makers such as Educational Testing Services (ETS) demonstrating some connection to the InTASC standards. However, on these measures civic education is included in a few items creating a small measure of civics and government content. The resulting data from these tests do not give a description with enough detailed sampling of civic concepts to confidently describe teacher's civic knowledge. Therefore, the lack of information about future teacher knowledge of civics means there is little feedback or

program evaluation. Data identifying specific needs for staff development to support the teaching of civic education also remain relatively unknown.

Developing Civic Virtue

To promote civic virtues in our schools, educators must support civic virtues in all classrooms, K-18. Civic virtues include civic knowledge, skills, and dispositions. Civic knowledge contains both an historical and contemporary understanding of the structures and function of a constitutional government and knowing the leaders, roles, and institutions at a local, state, and national level. Civic skills are behaviors including the analysis of data and government issues including conflict resolution and being part of a group. Finally, civic disposition includes motivations for civic behaviors and attitudes. These dispositions can include personal responsibility as well as the support of justice and equality. Students do not automatically connect knowledge and skills without experience or the belief that their participation makes a difference. Teachers need to be well prepared to help make the connections between civic knowledge, skills, and dispositions (CCE, 1994, p. 1).

Although national studies of civic education have increased in the recent past, the results of these studies are mostly dismal. The National Association of Educational Progress sampled civic knowledge of students in 1999 and in 2006, and revealed little progress in civic content knowledge at grades 8 and 12 (NAEP, 2006, Executive Summary, p. 7). Currently, there is minimal information regarding the level of civic knowledge of elementary teachers. Civics and government courses are not required for most elementary education programs.

Of course, with significant variation in the state's and the nation's pre-service programs, the resulting level of teacher preparedness and quality varies considerably as well. This inconsistency is especially pronounced in elementary school. Most pre-service elementary teachers must complete three to four reading courses and two math courses. Some are not required to take a content-rich,

discipline-based social studies course. Most programs require their students to take only a half-semester of social studies methods or share the course with science content. Most pre-service secondary teachers are not required to take a course in testing and measurement. (McFarland, 2005, p. 35)

The lack of consistent requirements for social studies courses in civics and economics means that elementary teachers often rely on their high school government and economic class for their preparation for teaching civic content. Therefore, elementary teacher civic knowledge required to effectively teach civic standards is not measured. Information that can better define the civic knowledge of our teachers will help to inform teacher preparation institutions and staff development programs of the content support needed to prepare future teachers to be effective civic educators.

Civic Standards for Teachers

National Board Certification

As a fundamental purpose of education, elementary teachers need to be well prepared to teach important civic and political ideas. The assessment of civic knowledge is a first step in discovering the present level of civic knowledge of our future teachers. A strong foundation of civic knowledge is an asset for elementary teachers delivering civic curriculum. Presently, the National Board Certification process required to become a National Board Certified Teacher (NBCT) includes one portfolio designed to measure teacher professional knowledge in the social studies by integrating civic concepts into performance standards. One portfolio entry focuses on NBCT goal VI: “Accomplished teachers develop in their students the knowledge, skills, and attitudes necessary to be responsible citizens of a constitutional democracy” (NBPTS, Social Studies/History Standards, p. 37). The NBCT demonstrates a selected integrated social studies

lesson as a portfolio entry and then the applicant responds in an essay to a social studies scenario on an online computer test session.

The American Board For the Certification of Teacher Excellence

The American Board for the Certification of Teacher Excellence (ABCTE) also samples civic knowledge and skills of experienced teachers. The ABCTE measure has 2% of the multiple choice test items targeting government concepts. The knowledge in the study guides for the exam include the following concepts:

Figure 2.2: Domain 3: Civics/Government -Topic 1: Civics/Government

1. Recognize and describe the significance of prominent national symbols, songs, and traditions (White House, Capitol Building, Statue of Liberty, bald eagle, the American Flag, Liberty Bell, Pledge of Allegiance, songs such as the National Anthem and America the Beautiful, national holidays)
2. Describe the evolution of the idea of representative democracy that serves as the foundation for the US government (principle of democracy developed by the Greeks; principle of a republican form of government developed by the Romans; Magna Carta; English Bill of Rights; concept of courts and justice from Henry II in England; Mayflower Compact; Declaration of Independence; Articles of Confederation)
3. Describe Anti-Federalists and Federalist arguments for and against the new Constitution, including those expressed in The Federalists Papers
4. Describe the political system of the United States and the ways that citizens participate in it through executive, legislative, and judicial processes
5. Explain the major principles of government and political philosophy contained within the Constitution, especially separation of powers, checks and balances, and federalism
6. Describe a citizen's fundamental constitutional rights and obligations
7. Describe the structure, powers, and roles of the Executive, Legislative, and Judicial Branches of the United States Government
8. Describe the struggle to extend equal rights to all Americans, including passage of the 13th, 14th, 15th, and 24th Amendments to the Constitution
9. Describe the role of key leaders (Susan B. Anthony, Eleanor Roosevelt, Jackie Robinson, Rosa Parks, Martin Luther King, Jr., Cesar Chavez)
10. Describe the tensions within our constitutional democracy (e.g., majority rule/individual rights; state/national authority; civil

disobedience/rule of law; freedom of press/right to a fair trial;
religion/government)

11. Explain concepts related to power and authority and the roles and responsibilities of citizenship as they relate to monarchy, totalitarianism, republicanism, democracy, and limited government (ABCTE website: <http://www.abcte.org/teach/exam-preparation/multiplsubject/standards>: Domain 3, topic 1)

Elementary Teachers As Civic Leaders

Benjamin Franklin was asked at the end of the Constitutional Convention of 1787 what type of government he thought the country's leadership had produced. "A Republic," he replied..."If you can keep it" (Ben Franklin, Constitutional Convention, 1787). Civic education, embedded in our daily lives, includes participation in family, church, religious institutions, jobs, community organizations, and media provide additional avenues for civic literacy. However, public schools have the primary and historic responsibility of citizen development. "If society and its schools fail in their civic mission, then the constitutional democracy will be at risk" (NAEP, Civics, p. ix). The importance of civic knowledge, skills, and dispositions is a part of our country's design for success and charged to our public schools and its teachers as leaders of children and communities. It is the responsibility of our government, states, and communities to be vigilant regarding this mission. Yet, our country's public school system and the teachers in lead of curriculum and instruction are key components to achieving this civic mission in an effective and equitable way to all future citizens.

Assessment Design Protocols

Wiggins (2009) reminds us that the two cardinal principles of the Total Quality Management or TQM (TQM, Demming, 1982) movement in business over the past half-century are "drive fear out" and "no quotas." The point is that a high performing business demonstrates

“continuous improvement” that includes providing incentive and rewards for making “progress” towards standards. Civic education would benefit from measures that monitored continuous progress in preparing teachers to address civic education goals. Measuring elementary teachers’ knowledge would provide one source of information to guide continuous improvement toward knowing and understanding important civic knowledge.

Testing is a small part of assessment. However, it needs to be part of the picture. Many people who are anti-testing end up sounding anti-evaluation and anti-measurement. A good test has a role to play. The language that we like to use is, “it's an audit. It's a snapshot.” You don't run your business for the audit. You want more than a “snapshot.” You want a whole family album. But the audit and the snapshot have a place in the larger picture. What can the test do that more complex, performance-based, project-based things can't do? Look for discrete knowledge and skill for the individual student. (Edutopia, <http://www.edutopia.org/grant-wiggins-assessment>)

The fact that no significant measure of elementary teachers’ civic knowledge is available creates a need to create an efficient and effective instrument. This tool could be an important part of a collection of data dedicated to monitoring progress toward delivering civic education goals and standards.

Dr. Popham (2005) noted that many of our achievement tests try to measure too many concepts. This is partly due to difficulty of accepting that some concepts may be more important than others. This promotes the ideas of an organized abandonment of concepts, which allows the salient concepts to rise to the top of the list of measurement targets. The desire to measure a few concepts well and to survey them adequately to gain a deep understanding of teacher knowledge was important part of the test construction design. The decision to use an expert panel to collaboration on a priority list of concepts and design a measure aligned using a multiple-choice format followed as an efficient and affordable format.

The Delphi project addressed the traditional test construction steps necessary to design a valid and reliable measurement tool. A sample test construction protocol is outlined by Izard (2005) to include the following steps:

Figure 2.3: Traditional Test Construction Steps

1. Decision to allocate resources
2. Content analysis and test blue print
3. Item writing
4. Item review 1
5. Planning item scoring
6. Production of trial tests
7. Trial testing
8. Second Item review
9. Amendment (revise, replace or discard)
10. Are more items needed?
(If “yes,” return to step #3 item writing step, if “no” continue to test assembly).
11. Assembly of final tests

(Izard, 2005)

The test construction of the CKI was similar to this process. The CKI construction begins with the decision to allocate resources, set costs, and determine time limits for test design and administration. Next, completed by the panel was a content analysis outlining the seven important civic constructs. A test blue print outlining questions for each construct followed. Test items written by the Delphi panel aligned to the test blueprint created by the same group. The constructed items reviewed by set criteria, including alignment to the test blueprint, and earning top ranking by the panel were included in a trial test. The answer key and scoring procedure were determined. Administration directions and the selected items created a trial test. This provided a second item review. The results of this trial test provided data for an item analysis of Delphi panels' item pool. Item performance determined which items to discard or retain. The final CKI test included the best performing items. If after further study of the CKI more items are needed, the process leads back to item writing and additional trial testing until enough items are created.

Content Analysis:

Content analysis of a test includes an audit of test items to check alignment to its identified purpose. According to Izard (2005), the following questions should be answered: Which content is supposed to be covered in the curriculum? Are there significant sections of this content? Are there significant subdivisions in any of the section and which content areas should a representative test include? (Izard, 2005).

Test Blueprint:

A test blueprint provides the specifications of the test. Typically the blueprint includes outlines of what the test should cover, title, duration, who will be tested, purpose of the assessment, types of tasks, uses of the evidence it produces, and balance of questions. In the case of this research an approximately one hour, untimed multiple-choice test (approximately 75-90 questions) designed for elementary education teacher candidates to test knowledge and understanding of essential civic concepts before student teaching was developed. There were approximately 7 to 10 items per concept. The multiple-choice test items had four options and the instrument was administered online with no reference materials available. Students were able to access their results upon request. The evidence gathered is intended to guide teacher preparation and professional development for early career teachers responsible to teach civic education. The test blueprint, determined by a Delphi panel of civic experts, outlines key civic concepts and created 7-10 test items per construct with attention to developing an even balance of knowledge and understanding.

Item-Development

Halayna summarizes the important steps in the item-development process.

Item Development Process

1. Make a plan for how items will be developed
2. Create a schedule for item development.
3. Conduct an inventory of items in the item bank.
4. Identify the number of items needed in each of these areas. Identify and recruit qualified subject matter experts for developing new items.
5. Develop an item-writing guide.
6. Distribute the item-writing guide to the item writers.
7. Distribute the guide to the item writers.
8. Conduct item-writing training for these item writers.
9. Make assignments to item writers based on the inventory and the evaluation of needs.
10. Conduct reviews leading to one of three decisions; keep, revise or retire.
11. Field test surviving items.
12. Evaluate the performance of items.
13. Place surviving items in the operational item bank.

One case study by Case, Holtzman and Ripkey (2001) investigated the quality of questions produced from different methods of instrument design. They investigated the development of items for the United States Medical Licensing Examination. They looked at three variations of methods for writing test items. One method used a traditional approach of committee chair, formal item-writing training, construct assignments, reviews between editors and authors of questions and an item review meeting. The second method was a single meeting that involved item writing training, and peer review. The third method was an “item-harvested” approach in which a group asked to write some items, was sent the writing guide to read before submitting items for review. The traditional method produced the best quantity and quality questions, however, for low-budget testing programs method two and three have merit for producing some high-quality items. One of the most essential reviews is by other subject matter experts for a judgment of the quality of the items used.

Measuring Civic Knowledge and Understanding: Bloom's Taxonomy Revised

When building a measure of civic content, writers strive to reach beyond basic facts to higher levels of thinking. The civic constructs identified were measured at the knowledge and understanding level using a multiple-choice test. Although this limits the measurement to only two levels, it does allow meaningful information to be collected. Educators already have a number of ways to represent content knowledge including Anderson and Krathwohl's revisions to Benjamin Bloom's Taxonomy Theory into Practice, 41 (4), 212-218.). This hierarchy describes levels of thinking that build on one another. Anderson and Krathwohl (2001) defined as follows:

- **Remembering:** Retrieving, recognizing, and recalling relevant knowledge from long-term memory.
- **Understanding:** Constructing meaning from oral, written, and graphic messages through interpreting, exemplifying, classifying, summarizing, inferring, comparing, and explaining.
- **Applying:** Carrying out or using a procedure through executing, or implementing.
- **Analyzing:** Breaking material into constituent parts, determining how the parts relate to one another and to an overall structure or purpose through differentiating, organizing, and attributing.
- **Evaluating:** Making judgments based on criteria and standards through checking and analyzing.
- **Creating:** Putting elements together to form a coherent or functional whole; reorganizing elements into a new pattern or structure through generating, planning, or producing. (Anderson and Krathwohl, 2001, pp. 67-68)

Both teaching and testing strive to reach as many levels of the taxonomy as possible. In many cases, a foundation is built on “remembering, understanding and applying” curricular standards. These levels tend to be easier to assess through cost effective instruments. Multiple-choice tests are popular for measuring the first three levels of the taxonomy.

Bloom's original cognitive taxonomy was a one-dimensional form. With the addition of products, the Revised Bloom's Taxonomy takes the form of a two-dimensional table. One of the dimensions identifies The Knowledge Dimension (or the kind of knowledge to be learned) while the second identifies The Cognitive Process Dimension (or the process used to learn). As represented on Table: 2.3 (see Figure 2.4: Bloom’s Revised Taxonomy and Knowledge Dimensions).

Figure 2.4: Bloom’s Revised Taxonomy and Knowledge Dimensions

The Knowledge Dimensions	Cognitive Processes					
	1. Remember	2. Understand	3. Apply	4. Analyze	5. Evaluate	6. Create
Factual						
Conceptual						
Procedural						
Metacognitive						

This “Taxonomy Table” demonstrates how the intersection of the knowledge and cognitive process categories form twenty-four separate cells. Each cell shows the intersections as the processes affect the levels of knowledge. Using a simple cross impact grid like the one above in Figure: 2.3, one can match easily activities and objectives to the types of knowledge and to the cognitive processes as well. It is a very useful tool for assessing how instruction is actually influencing levels of learning. Teachers can also use it to track which levels of cognition they are

requiring from students, as well as which dimensions of knowledge. Teachers who teach any content area, including civics need to be masters of both dimensions.

Factual Knowledge is knowledge that is basic to specific disciplines and civics is no exception. This dimension refers to essential facts, terminology, details or elements students must know or be familiar with in order to understand a discipline or solve a problem in it. This is related, yet different from conceptual knowledge, which is knowledge of classifications, principles, generalizations, theories, models, or structures pertinent to a particular disciplinary area. Additionally, procedural knowledge refers to information or knowledge that helps students to do something specific to a discipline, subject, or area of study. It also refers to methods of inquiry, very specific or finite skills, algorithms, techniques, and particular methodologies. Finally, metacognitive knowledge is the awareness of one's own cognition and particular cognitive processes. It is strategic or reflective knowledge about how to go about solving problems, cognitive tasks, to include contextual and conditional knowledge and knowledge of self (Anderson and Krathwohl, 2001). Curricular standards outline knowledge and process necessary to know, understand and apply learning related to the content area. Therefore, civics has both knowledge and process skills. In all standards related civics, both knowledge and process skills are considered essential to civic literacy. A test constructed to measuring important civic knowledge needs to strive to write questions beyond the knowledge level to include items that measure understanding and application levels.

Administration and Analysis of CKI Item Pool

Items are produced, revised, reviewed, and then finally tested. Researchers can use data collected from an item analysis and reliability measures as a way to study items to see if it

behaves the way intended. Haladyna (2004) summary of the connection between test score validation and item response validation is outlined in the chart below (Haladyna, 2004 pg. 18).

Figure 2.5: Three Steps in Construct Validation

Three Steps	Test Scores	Item Response
1. Formulation	Define construct	Define the basis for the item in terms of its content and cognitive behavior related to construct
2. Explication	Test	Item
3. Validation	Evidence bearing on the interpretation and use of test scores for a specific purpose	Evidence bearing on the interpretation and use of an item response with other item response in creating a test score that can be validly interpreted or used.

(Haladyna, 2004 pg. 18)

Cognitive demand

Cognition is the process of knowing something. It is a private act because it involves human thought. We observe people's responses to test items in a testing setting that is contrived.

Inferences made about degrees of knowledge based on the evaluation of a person's responses to the test items. Knowledge is accepted as only one aspect of cognition. Yet, according to

Haladyna, there are four types of knowledge content. Haladyna describes fact as a known truths or experience, where concepts or a class of objects or events that share a common set of

characteristics. Principle is a statement of relationship between two or more concepts. These principles come in two forms, immutable and probable. One form is evidence (immutable) and the other is inferred (probable). Procedure, described as a series of actions leading to a desired objective or outcome, is the last process. Haladyna proposes that knowledge can be categorized into one of eight categories are found at the intersection of the content and process table below.

Figure 2.6: Combining Cognitive Processes with Content Knowledge

Cognitive Process	Content			
Recalling	Fact	Concept	Principle	Procedure
Understanding	Fact	Concept	Principle	Procedure

(Haladyna, 2004)

Testing format

Belle and Gafni (2000) concluded, “it is believed that the first priority should be given to what is measured rather than how it is measured” (p.18). Student learning can be knowledge, skills or cognitive abilities. Knowledge can be recalled, understood or applied. Haladyna concludes that when the domain of knowledge or skill is conceptualized that the main validity concern is the adequacy of the sample of test items form this domain. Multiple-choice are the best way to obtain more units of measure. Whether the cognitive demand is recall or understanding, multiple-choice seems justified. Considerations to the following attributes are given when selecting testing formats (Haladyna, 2004 pg. 63).

1. Ease of item construction
2. Types of test administration
3. Cost of Scoring
4. Type of scoring
5. Rater effects

Evaluating Assessment Measures:

Validity is the degree to which accumulated evidence and theory support specific interpretations of test scores entailed by proposed uses” (American Educational Research Association (AREA), American Psychological Association (APA), and National Council on Measurement in Education (NCME), 1999, p. 84) measures of multiple choice testing.

Test construction requires the careful investigation of evidence defending the supporting the argument established when determining the purpose of the test. The process of creating the argument and the collection of evidence to support this argument is “validation”.

The three steps in the process of validation. Cronbach (1971) identified three steps in the validation process, formulation, explication and validation. Formulation and explication are part of test construction. Validation involves collecting validity evidence we use to support the interpretation and use of test scores. In formation, a construct is clearly defined and named. The Standards for Educational and Psychological Testing (AERA et al., 1999) uses the word “construct” to define domains as well as abstract constructs. New standards make it clear the importance of defining construct:

The test developer should set forth clearly how test scores will be interpreted and used. The populations(s) for which a test is appropriate should be clearly delimited and the construct that the test is intended to assess should be clearly described. (AERA, et al. 1999, p. 17)

Formulation requires the definition and connectedness of any construct linked to achievement to be clear enough for test developers to construct variables that “behave” according to the ideas about our constructs. (Haladyna, 2004) Explication is the step that created measures for each construct being studied. One “threat to validity” is construct under

representation (Messick, 1989). Use of multiple-choice formats also may contribute to over reliance on knowledge testing at the expense of more difficult to measure cognitive abilities (Frederiksen, 1984) Validation requires the collection of data to confirm our arguments that the assessment measures can be interpreted and used validly. This process includes the summary of judgments of the adequacy of support or against the intended use of results.

Validity involves subjective judgments of the proposed argument and related evidence. There are five problem types that can undermine validity (Cronbach, 1988, and Kane, 1992).

1. Inadequate definition of constructs
2. Under representation of construct
3. Inadequate validation
4. Inadequate evidence supporting predictions
5. Source of systemic error in test scores (Construct-irrelevant variance)

Reliability Measures:

Reliability is a measure of consistency of a measurement. It is important to know that the measures of a test continue to perform consistently and are therefore “trustworthy” when given to various groups. There are many ways to investigate reliability including test-retest, multiple forms, parallel forms (two different tests measuring the same content) and split-half reliability measures. Cronbach’s alpha is a reliability measure commonly used to test reliability of instruments with only one form.

Overview of the Delphi Method

The original Delphi Project took place in the 1950’s, led by the Rand Corporation. This project, funded by the United States Air Force, established a reliable use of expert opinion to predict how Soviet military planners might target the United States industrial system in an attack during the Cold War. The idea was to develop a method to distil the wisdom of a group into an

effective forecast or consensus on problems or issues of complexity that have no researchable answer available.

An important element of the process is designed so that the experts do not directly interact with one another, but instead submit their responses individually. This protocol avoids some social processes and contaminations that can happen in group settings. Also, the Delphi process allows busy experts the opportunity to participate as part of a group to generate new ideas to solve a problem from a distance. This is done with the help of a researcher who facilitates the process and shares information with the expert panelists in a confidential manner.

The Delphi Technique has proven to be useful for generating communications among a group of people until establishing a consensus or priority ranking on many given topics where one right answer is not available. The number of experts and rounds varies. The format for the expert input and facilitator feedback also varies across the following variables:

1. Number of Rounds. The more rounds of input and feedback, the more likely consensus will occur.
2. Panel Size and Selection Protocol. Numbers vary from five to several hundred.
3. Rating Tools and Scales. Facilitators use a variety of tools to compile input of panelists and related feedback.
4. Anonymity. Degrees of anonymity vary depending on the issues/questions under investigation.
5. Rules. Various ground rules exist for disagreement and definitions of consensus.

Today, the Delphi method is considered a process or a method for structuring group communication so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem (Linstone & Turoff, 1975). Gordon and Helmer (1964) described

this technique as a means to obtain the most reliable consensus of opinion of a group of experts by a series of intensive questionnaires interspersed with controlled opinion feedback. Initial uses for this method included forecasts of single-dimension single issue, consensus building, avoidance of “groupthink” and “spiral of silence” and to generate new ideas (Gordon & Helmer, 1964).

In fact, the Delphi method becomes a family or genre of techniques rather than a single clearly understood procedure. However, all protocols considered a type of Delphi procedure do have in common several features. These characteristics include an expert panel; a series of rounds in which information is collected from panelists, analyzed and fed back to them as the basis for subsequent rounds; an opportunity for individuals to revise their judgments on the basis of this feedback; and some degree of anonymity for their individual contributions (Underhill, 2004). Another way to view the Delphi method is to consider it as a dialectical inquiry approach that includes the following phases: 1) thesis: establishing opinions or views; 2) antithesis: conflicting opinions or views; and 3) synthesis: a new agreement or consensus.

Specifically, the Delphi method attempts to improve the following issues over “face to face” conferences:

- variability of participant behaviour and group social behaviour
- ruts or tangential discussions;
- lack of think time;
- panel stratification of status;
- strong personalities dominating conversations and decisions;
- low perception of group’s progress toward solving the problem;
- lack of expert proximity; and

- costs of extended meetings in time and money

The Delphi is also associated with structured approaches such as the “Nominal Group Technique” (NGT). Structured groups approaches, used for complex decision-making and creative problem solving, are designed to improve collaborative work by lessening the pitfalls of conventional meetings that often have uncontrolled flow of conversations and little direction.

Like all research techniques the Delphi method has noted liabilities, which include:

- Imposing monitor’s beliefs or influencing the results while facilitating the process
- Assuming the Delphi can be a substitute for all other human interactions
- Poor summarization when presenting the group response and applying the common interpretation of evaluation scales used
- Ignoring and not exploring disagreements during the rounds of discussion
- Understanding the demanding nature of the Delphi and the fact that the respondents should be considered as consultants of the Delphi and not a participant as part of their job function. (Linstone & Turroff, 1975. pp. 1-10)

Today the Delphi method is considered a family of techniques rather than a single clearly understood procedure.

The Delphi method is consistently used when there is a need to establish as objectively as possible a consensus on a complex problem, in circumstances where accurate information does not exist or is impossible to obtain economically, or inputs to conventional decision making; for example, by a committee meeting face to face are so subjective that they risk drowning out individuals’ critical judgments. (Linstone & Turoff, 1975, 2002, p.1)

Therefore, the Delphi method, not linked to any one area of study, varies with application of context and problem. The applications of this method continue to adapt to the situation in which it is used.

Summary

This chapter reviews the major issues related to civics education in our public schools. It addresses the civic mission, status of standards and assessments designed for K-12 schools. Measures of elementary teacher civic knowledge are also described. Civic dispositions established during the middle school are built on foundations of civic literacy developed while students are in elementary school. It follows that there is a great need for elementary teachers to be prepared to teach key civic concepts at the elementary level. There are no conclusive measures for elementary teacher civic knowledge, so little is known regarding the status of teacher preparation in civics. Therefore, a civic knowledge inventory is needed to measure elementary teacher candidate civic knowledge against the concepts that civic experts identify as essential to civic literacy at the elementary level. This project will produce a civic knowledge inventory to assess teacher progress towards knowing and understanding the identified essential civic concepts.

Designing an effective measurement tool begins with identifying important constructs to be tested. Test items are then designed to align to these constructs. There are many rounds of revision until the trial test is completed. The data collected from the trial allows for test builders to study the performance of the item to reliably measure the intended construct.

Reviewing the Delphi method demonstrates there are clear advantages to using civic experts to identify essential concepts that all elementary teachers should know and understand. The civic concepts determined by the Delphi panel through rounds of discussion and deliberation will describe the essential civic knowledge all elementary teachers need to know to be effective civic educators. Modifying the Delphi protocol for online use helps distant panelists to complete the required tasks needed to build consensus on test constructs and measures. The civic scholars

deep understanding of content and experience in education makes them strong candidates to construct multiple-choice questions to assess elementary teacher civic knowledge. This prepares the same Delphi panel to design and align questions to the concepts they have identified. Engaging the same group consensus process to test construction aligned selected civic constructs will create an instrument that could be used to provide feedback to teacher preparation programs and individual elementary teachers regarding their readiness to teach civics.

A valid and reliable instrument could be a useful tool for teacher training both to monitor civic knowledge in teacher preparation institutions and to use as a framework to proactively build civic literacy for all elementary teachers. An inventory of civic knowledge could be a significant contribution to better understanding academic gains as well as specific needs of elementary civic educator charged with building a strong foundation of civic literacy for all students. This study will assess the levels of success of the Delphi process in identifying important civic constructs and designing a valid and reliable measure of elementary teachers' knowledge of these civic constructs.

CHAPTER 3: Research Design

This chapter describes the research plan for this study involving eight civic scholars collaborating to identify important civic content knowledge essential for elementary teachers, and construct a valid and reliable multiple-choice instrument to accurately measure these civic concepts. The researcher used a mixed method research design applying both qualitative and quantitative research methods to determine the Delphi's success in this context with the given modified protocol. This research study employs the qualitative research methodology to study the Delphi method's effectiveness in identifying key civic concepts followed by the construction of a valid and reliable criterion-referenced multiple choice civic knowledge inventory to be used to measure elementary teachers civic knowledge related to these important civic concepts. In *Phase I*: Delphi panel of civic experts participated in several rounds of deliberation to determine essential civic concepts or constructs that all elementary teachers should know to be effective civic educators. The Delphi method, applied again in *Phase II* using the same civic experts, created a tool to measure elementary teachers' knowledge and understanding of the targeted civic concepts. Quantitative measures are used to measure the reliability of the test item created as well as analyze each items performance to determine if it should be included in the civic knowledge inventory (CKI) created by the Delphi panel.

This study is designed to gather and analyze data to answer two research questions,

- 1: To what extent and in what ways is a modified Delphi technique useful in identifying the most important civic concepts elementary teachers should know to be effective civic educators?
- 2: To what extent and in what ways is the Delphi method a useful tool in the development of a valid and reliable instrument to measure the identified key civics concepts?

This research will describe the effectiveness of the Delphi technique to identify key civic constructs and to produce a viable pool of items to create an aligned measurement tool. This leads to an evaluation of the reliability and validity of the newly Delphi constructed Civic Knowledge Inventory (CKI) as a tool to measure pre-service teacher civic knowledge related to selected civic concepts.

Type and Subtype of Research

Using both qualitative and quantitative methods, this research resulted in a list of civic concepts that elementary teachers should know to be prepared to teach civics in their classroom. This study analyzed the use of the panel using the Delphi method to gather information from a group of civic experts in the field of civic education to identify essential civic constructs for elementary teachers. Secondly, the research examined the use of the Delphi method to develop a valid and reliable instrument to assess those essential civic constructs. Items analyzed via item analysis determined their validity and reliability as measures of civic knowledge. In summary, this research resulted in the development and evaluation of an instrument used to assess civic knowledge of pre-service teachers to inform teacher preparation programs of any teacher candidate needs in the area of civic education.

Methods and Instrumentation Used to Collect Data

The study has three parts spanning several academic years. First, a group of civic educators identified a list of civic concepts elementary teachers should have to successfully teach civics using a modified Delphi technique. Secondly, the same experts created multiple-choice items for an assessment instrument used to measure elementary teachers' knowledge and understanding of the identified civic concepts. The same Delphi technique was instrumental in

the panel's collaboration to write test items. Third, this research study assessed the validity and reliability of the instrument. The multiple-choice items were examined using item analysis strategies including item discrimination and differentiation scores. Teacher interviews provided information on test directions and the understanding of question stems and distractors.

Kansas State Online (KSOL): A Web-based Modified Delphi Protocol

The facilitators of the Delphi study utilized a secure online technology known as Kansas State Online (KSOL). Kansas State Online (KSOL) is an electronic course management tool with assessment features. This tool was selected as an efficient and affordable web-based tool to collect data from experts across the globe engaged in dialogue and deliberation while identifying key civic concepts and designing an instrument to measure these constructs. KSOL provided an easy-to-use platform for discussion threads, data collection, and information dissemination. Files were stored and secured by the project leaders. All information was archived to give participants access to team outcomes and project artifacts.

When using this technology, each panelist had access to this project from anywhere in the world connected to the Internet. Simple, clear directions were given for each step and panelists received e-mail reminders about the study's pending or past deadlines. It was important for all panelists to complete each step in a timely manner to keep progress toward the collaborative goals and agreed upon time commitment. A projected project timeline was enclosed with their invitation letter (see Appendix D:).

To ensure the free and open exchange of ideas, this study design called for anonymity. Panelists were given Greek pseudonyms to anonymously submit information via KSOL. Only the research leadership team knew the identity of the participants and corresponding pseudonym. At no time before, during, or after completion of the study were participants' names and

matching pseudonyms released to anyone. The list matching participants' names and pseudonyms was stored in a secure location. At the conclusion of the study, participants who agreed to do so were provided informed consent to release their names as participants in the study; doing so, however, was not a requirement of the study.

The ten basic steps for Phase I and four steps included in Phase II of the "Delphi Project" included a structured communication between panelists. Rounds of feedback and compilation summaries were continuously archived in KSOL via a course titled "The Delphi Project." Archives were accessible to each panelist at any time and any place the Internet was available. Each civic expert contributed original ideas and critiques to fellow panelists' ideas and comments without revealing their personal or professional identity. Directions for each round, ideas, feedback, or comments were collated and shared without edit or comment by the facilitator. All directions and artifacts created by the research project were accessible at all times to participants.

Each Delphi panelist could access secure documents by using their pseudonym and password, making the panel anonymous to promote equitable consideration for all ideas and input throughout the process. Links to standards and documents that related to each task were present for the panelist in folders located on KSOL. These folders included clear and concise directions. Help was always available to participants by e-mail and cell phone. Accommodations were made for any participant who felt better e-mailing their files to the facilitator instead of following the "uploading" of files protocol. The facilitator then uploaded the file for the panelist.

Participants in the Study

Delphi Panelists

Each panelist had multiple opportunities to both individually apply their civic expertise toward the project's group goals during the fourteen steps of the project's action plan. (The first ten steps identified concepts and four final steps created multiple-choice test items.) This synergetic process provided an opportunity for sustained collaboration, deliberation, and feedback of experienced civic experts, enhancing the validity of both the resulting list of important civic concepts and the aligned test items.

The invitation to participate in this study included the use of specific criteria for panel selection to strengthen content validity of a civic knowledge inventory. The invitation for panelists was extended to individuals who met the following criteria:

- expertise in civic education
- experience with elementary social studies programs and pre-service education
- prior experience with writing multiple-choice test items
- willingness to participate in a six month project
- agreement to participate anonymously
- aptitude or capacity to learn to use K-State On-line (KSOL)

Eight civic educators met the following criteria and participated as Delphi panelists. These civic experts combined their wisdom to produce a list of major civic concepts, design test items aligned to measure these concepts, and select the best items to create a civic knowledge inventory.

The Delphi panelists used nationally recognized social studies and civics curriculum as a means of applying current curricular standards to build their lists of important civic concepts. Panelists created their list of essential civic concepts and made comparison to these national education standards documents that have specific civic standards at the elementary level

including: National Assessment of Educational Progress CIVIC Framework (NAEP-CIVICS, 1999), National Council of Social Studies (NCSS, 1994), and Center for Civic Education (CCE, 1994). The Delphi process combined several rounds of individual input with peer review and evaluation using these foundational publications.

Elementary Education Seniors

Eighty-nine elementary seniors volunteered to take the test at the completion of their social studies methods course. The participating colleges of education are at two unique geographic sites, and each school is NCATE accredited graduating about 100 teacher candidates per semester. Admissions and licensure requirements at the institutions are similar and representative of most teacher preparation institutions in the Midwest. The initial data set was used as a data base managed by Kansas State University's Office of Education, Innovation, and Evaluation (OEIE). This study analyzed the data collected. Therefore, this study described the item analysis and test performance of each item (see Table 4.4).

Delphi Panel Facilitators

Masini discussed a concern when using a Delphi method (1993). A Delphi study is dependent on the worldview and biases of the coordinating or monitor team, who choose the respondents, interpret the returned information and structure the questions. There is a great deal of debate therefore over whether this coordinating group should be chosen from within or outside the organization initiating the study and whether they should be experienced in the subject area of the study in question (Masini, 1993). To Address this concern, the researcher, from outside the initial organization and representing the targeted elementary teacher audience, served as the

major facilitator. The additional facilitators from within the initiating organization represented experts in civics.

The management of the timeline, prompts, and feedback was the major role of the researcher. Colleagues participating as collaborative facilitators and researchers provided input to the prompts and process. All rounds of directions and deliberation were anonymously uploaded and always available to all participants. Delphi Panelists collaboratively worked to accomplish two project outcomes:

1. List major civic constructs that all elementary teachers should know and understand to be effective civic teachers.
2. Create an inventory that can measure elementary teacher knowledge and understanding of the important civic constructs identified by the panel.

The Delphi Method Overview and Applications

The Delphi method, according to Linstone & Turoff, is defined as a process or a method for structuring a group communication allowing a group of individuals, as a whole, to deal with a complex problem. Gordon and Helmer (1964) described this technique as a means to obtain the most reliable consensus of opinion of a group of experts by a series of intensive questionnaires interspersed with controlled opinion feedback.

Underhill (2004) describes the Delphi method as a family or genre of techniques rather than a single clearly understood procedure. All protocols have in common several features when considered a type of Delphi procedure. These characteristics include an expert panel; a series of rounds in which information is collected from panelists, analyzed and fed back to them as the basis for subsequent rounds; an opportunity for individuals to revise their judgments on the basis of this feedback; and some degree of anonymity for individual contributions. This project used

these common characteristics and the Internet via Kansas State Online (KSOL) course management program as a modified Delphi technique.

Project Phase I. Delphi Panel Identifying Important Civic Concepts

This research study described the effectiveness of Delphi project outcomes in phases. The first phase of this project identified the essential civic concepts an elementary teacher should understand to be an effective civic educator using a modified Delphi procedure. The idea that “two heads are better than one” is applied to the Delphi method as a technique that honors individual’s ideas while influencing others until a common ground can be found as the best solution for that problem—in the given context and at a particular time. A web-based, modified Delphi technique was used as a collaborative method designed to determine what elementary teacher’s civic knowledge should be. This method opened the opportunity for panelists to participate with other important leaders in civic education from across the country. In fact, the Delphi method, combined with Kansas State Online (KSOL), allowed for the inclusion of national civic education experts without calling them to one location. Panelists interested in continuous collaboration over extended time and distance had access to the process “on-demand” any time from anywhere in the world.

The flexible format and use of the Internet provided access that meets the needs of professionals with full schedules and travel itineraries that spanned the globe. Using KSOL provided additional modifications to the Delphi method used:

- A cost-effective way to create a reliable and valid instrument.
- An equitable strategy for engaging national civic experts in extended dialogue.
- An exploration of the Delphi method via KSOL.
- An investigation into the possible future application of the Delphi method to instrument designs or collaboration of distant experts on curricular issues using the Internet.

A modified Delphi method was used as a collaborative consensus process as a means of collecting validity and reliable evidence of elementary teachers' civic knowledge. The panel completed fourteen rounds (See Table 3.1: Identifying Key Civic Knowledge Concepts Using A Delphi Method) of deliberations and revisions until a group consensus was reached on a list of seven important civic concepts. These concepts became the framework for construction of the civic knowledge inventory.

During *Phase I* of this research, each panelist collaborated over a six month period to complete ten steps with anonymous colleagues to identify a priority list outlining the most important civic knowledge concepts that elementary teachers need to understand to be effective civic educators. Once the Delphi Panel collaboratively identified the most important civic knowledge concepts that elementary teachers need to understand to be effective civic educators, related concepts were added to the outline for each of the concepts or “constructs” identified. These became targeted test constructs and the outline for item construction of the civic knowledge inventory. All participants were aware of the steps involved in successfully completing the project. Table 3.1 outlines the steps and responsibilities of the Delphi panelists on the intended timeline. Each step was completed entirely with 100% participation and completion before the next step was launched (see Table 3.1: Identifying Key Civic Knowledge Concepts Using A Delphi).

Table 3.1: Identifying Key Civic Knowledge Concepts Using A Delphi Method

Project Phase I: IDENTIFYING IMPORTANT CIVIC KNOWLEDGE		
	TIMELINE	CIVIC EXPERT PANELIST RESPONSIBILITIES
STEP 1: BRAINSTORM CIVIC CONCEPTS	1 week	Create a list of important civic knowledge concepts that <u>elementary</u> teachers should know to be effective civic educators.
STEP 2: FIND BROAD CIVIC CONCEPTS	1 week	A. Compare your list of concepts to the lists of other panelists. B. Revise your list if needed. C. Connect or categorize your list of civic concepts into categories of related concepts.
STEP 3: RATE CONCEPT IMPORTANCE	1.5 weeks	A. Rate each list of concepts on a scale of 0-4. (Scale: 0= No Importance, 1= Low Importance, 2=Moderate Importance 3= Important, 4=Essential) B. Explain your ratings of each list.
STEP 4: REVISE & EDIT	1 week	Based on the ratings and comments of fellow panelists, revise and edit <u>your</u> list.
STEP 5: COMPARE YOUR LIST TO NATIONAL CIVIC STANDARDS DOCUMENTS	1 week	Compare your list with national documents framing civic knowledge standards in elementary civic education; National Council of Social Studies Teacher Civic Standards, (NCSS); National Standards for Civic Education, (CCE); National Assessment of Educational Progress 2006; and Civics Assessment Framework, (NAEP, 2006).
STEP 6: REVISE / EDIT	1 week	Based on the comparisons with national documents, revise and edit <u>your</u> list.
STEP 7: RANK ORDER BROAD CIVIC CONCEPTS & JUSTIFY	1.5 weeks	A. Rank each panelist's list of concepts. (Scale: 1=Most Important, 2=Next Most Important, etc.) B. Explain your ranking of each list.
STEP 8: REVISE & EDIT	1 week	Based on the rankings and comments of fellow panelists, revise and edit your list.
STEP 9: FINALIZE CIVIC CONCEPTS	1.5 weeks	Review the combined compiled list of "Top Ten" Civic Concepts elementary teachers need to know.
STEP 10: VOTE	1 week	Panelists vote on suggested changes.

Project Phase II: Item Construction—Delphi Panel Creates Multiple-Choice Items

The Delphi Panel created a collection of test items aligned to the concepts identified in *Phase I*. Again using the Delphi Technique for feedback and peer edits, these civic experts designed multiple-choice test items to measure identified civic concepts. The group shared items, deliberated, critiqued, revised, and eventually ranked items for each construct measured. Ranking rounds helped to determine the top ten questions for each concept to be used in preliminary testing. Each item was peer reviewed by the Delphi civic expert panel and highly ranked on a test construction checklist before being included in the item analysis.

Therefore, *Phase II* is considered the design phase of the CKI. This phase began with a mandatory reading of a document prepared by Dr. Michael Anderson, summarizing multiple-choice test item construction. This document outlines expert design techniques for writing multiple-choice items in a brief document and checklist “Test Writing Tips” (see Tips for Writing Multiple Choice Questions, see Appendix A). Phase II of this study required the panel to complete four steps over several weeks to create test items (approximately two per concept or a total of 14 items per panelist) that they believed provided a valid and reliable measure of civic knowledge concepts identified by the group. Reminders of the qualities of effective multiple-choice questions and criteria for item construction were given to the panel prior to their item writing assignment and referenced as they evaluated and ranked items. Questions developed by the panel were judged through two rounds of feedback. Input among panelists was used to revise and modify test items during construction. A final rating of items was used as a means to select the highest-ranked questions to be used in the civic knowledge inventory. Therefore, panelists designed, critiqued, and revised the final group of test items aligned to the selected standards in

the checklists provided. The final step in Phase II of the project required the rating of the chosen items.

Item Construction: Quality Control

The Delphi panel constructed test items to measure the seven important civic concepts selected in *Phase I*. All the civic experts who participated in the Delphi panel had experience in test construction—at least in their own classes. All panelists had experience writing multiple choice test items for test measures at the local and national level. A review of item construction was part of the preparation protocol for the panel before writing test items. A document was provided as a review on how to write test items (see Tips for Writing Multiple Choice Questions, Appendix, A). This document included a “checklist” to be used to guide the construction and evaluation of test items constructed by the Delphi team during Phase II of this research study.

After reviewing the document “Test Writing Tips” (Anderson, 2006), panelists then created and submitted test items that they believed provided a valid measure of civic knowledge concepts (See Appendix A). Each panelist contributed two questions for each of the concepts identified in *Phase I*. A web-based “modified Delphi method” was used to orchestrate feedback to collaboratively work on writing and revising test items. The checklist provided a structure for discussion and feedback.

These responses were compiled for a later round when panelists reviewed the “Multiple-Choice Checklist” and then rated each item created by the panelists using the scale in Table: 3.2.

Table 3.2: Multiple-Choice Question Revision Feedback Rubric

Rating: 1	Item needs to be rewritten or major revision
Rating: 2	Item needs revision
Rating: 3	Item needs revision
Rating: 4	Item needs no revision

Comments were included to explain ratings or to assist fellow panelists in revisions. Feedback was shared with the panelists who then were asked to revise their questions and resubmit items for the final rating. Panelists received comments and ratings and made revisions before the following rating scale was used to establish the highest-ranking items.

The revised civic inventory items list was resubmitted and then compiled into a list organized by targeted concepts. Panelists inputted their ratings for each item along with any comments related to the item quality or effectiveness. The averages of each items' ratings became a ranking to comparing one item to other items targeting the same concept (see Table 4.4: Civic Knowledge Inventory: Recommendations to Remove or Retain). The final rating was an average for each item. This procedure provided a test bank of high scoring items to be used to construct the test. The highest-ranking items were included in the instrument for further study.

Table 3.3: Step 4: Test Construction: Final Item Rating Scale

1	Item does not measure targeted concept and is inconsistent with the purposes of the study or the "Checklist for Writing Multiple-Choice Items" provided.
2	Item does not adequately measure intended concept and is mostly inconsistent with the purposes of the study or the "Checklist for Writing Multiple-Choice Items."
3	Item measures intended concept and is mostly consistent with the purposes of the study and the "Checklist for Writing Multiple Choice Items."
4	Well-constructed item that measures intended concept and is consistent with the purposes of the study and the "Checklist for Multiple Choice Items."

Phase II is summarized below in Table: 3.4. Panelists completed the test construction in approximately eight weeks. The selected items were then administered to 89 volunteer seniors providing evidence for item analysis and the retention of the highest performing items.

Table 3.4: Project Phase II: Steps for Delphi Panel Test Construction

Phase II: Item Construction	TIMELINE	PANELIST RESPONSIBILITIES
STEP 1: WRITE TEST ITEMS FOR 10 CIVIC CONCEPTS	2 weeks	Design two multiple-choice test items for each of the ten civic concepts identified. (Panelists were given design suggestions and protocol.)
STEP 2: REVIEW & RATE TEST ITEMS	1.5 weeks	A. Review fellow panelist's items. B. Rate each item on a scale of 1-4. (Scale: 1= needs revisions, 2=Adequate, 3= Effective, 4=Outstanding)
STEP 3: REVISE & EDIT	2 weeks	Based on the ratings and comments of fellow panelists, revise and edit your items.
STEP 4: Rank items	2 weeks	Review questions in each civic construct and rate each item

CKI Test Construction

Researchers selected about ten items per targeted concept based on panel rankings. The items scoring the highest rankings were considered to be the best available measure of each targeted concept. A chart was made demonstrating the relationship of test items to targeted concepts to ensure adequate coverage of each concept (see Appendix B).

Selecting Items: Considerations and Counts

Dr. James Popham (2005) recommended that the complexity of the concept determine the number of items. He claimed that the researcher's judgment should determine the exact number of item numbers used since the expert involved is the best judge of what is deemed an adequate measure. Based on Popham's ideas, about ten items were included for each "construct." This would allow for one or two items per construct to be eliminated as determined by their performance during preliminary testing results. Ten items with the highest ranking per construct were randomly distributed in the CKI.

The inventory's estimated length was approximately one hour exam with 73 multiple-choice questions and ten background questions including a survey noting the participant's prior coursework taken related to civic education and self reported confidence level for the concepts being tested. Although this background analysis is not part of this research study, the information was deemed useful for future study.

The directions for this measurement tool were created by researchers and uploaded by the Kansas State University's Office of Education, Innovation, and Evaluation (OEIE), who are experts in testing and measurement, but outside the research team. The web-based design of the civic inventory was the targeted format; however, a paper and pencil version was also available for this study during interview sessions.

An electronic version was sent to the OEIE who facilitated the use of the Kansas State Online Survey Services to create an on-line version accessible to all campuses involved. An answer key was created by the researcher recording correct responses. A web-based civic knowledge inventory then was made available at participating universities to measure essential civic knowledge concepts with volunteers.

Assessing Delphi Panel's Test Items

The initial inventory made up of 74 highly ranked items, was administered to 89 students at two mid-western universities to determine item performance levels. The pre-service students were seniors enrolled in social studies methods before their student teaching. The directions to the civic knowledge inventory were created to guarantee anonymity and to assure participants their work was important enough to educational research to earn extra credit in the Social Studies methods course they were enrolled in during their senior year. Instruction to participants

provided clear and concise directions as well as information necessary to meet IRB regulations at both institutions.

Data Collection: K-State On-Line Test Format

The use of a Web-based testing format via KSOL provided data collection when assessing tested items by electronically capturing participant responses. This allowed for data sets to be easily collected and analyzed. Consultants from the OEIE facilitated the gathering of the quantitative data from participants and the background surveys via the website. Researchers analyzed test results for reliability and validity by conducting the measure outlined in the research plan using Statistics Programs for the Social Sciences (SPSS) as a statistical tool to assist with analysis computations of quantitative measures gathered during preliminary test administration.

Data Analysis

An evaluation of each test item was completed through careful analysis of quantitative and qualitative data collected during this study. As directed by testing experts Hanna and Dettmer (2004), “An item should never be revised only on the basis of item-analysis: rather negative data should attract scrutiny and this thoughtful consideration is usually sufficient to identify flaws” (Hannah and Dettmer, p 255).

The highest performing items for each construct were recommended to be included in future testing. A sufficient number were recommended through this process, so no replacement items were recommended. A pool of replacement items that measure knowledge and understanding of the targeted civic concept that might have been selected if needed could be

found on lists of released NAEP data banks designed to measure K-12 students' civic knowledge.

The recommendation for item deletion was summarized as findings based on data results from preliminary testing. The final version of the CKI was given to five college of education seniors for further holistic-qualitative analysis. The interview provided insight into the clarity of questions and directions as well as highlighting concerns with vocabulary. It is understood by the researchers that there was judgment based on empirical data with some interpretations of the researchers.

The CKI's reliability was calculated by completing a Cronbach's alpha. These statistics were run after selected poor performing items were removed. The results of these tests helped to evaluate reliability before and after revisions.

Part A: Whole Test Measures

1. Reliability Measures: Cronbach's Alpha of Reliability Measures

Cronbach's alpha was completed to determine the reliability of the CKI as a whole as well as the reliability of targeted concepts. The Cronbach's alpha was used to look at patterns, such as trends of subgroups. Any items that negatively impacted test reliability were investigated further and revised or removed. Edits that were necessary to improve reliability and validity were made as the preliminary data and teacher candidate interviews indicated. Revisions were made to the CKI as determined by the conclusions drawn from the data analysis of the preliminary study. A reliability of greater than .70 is desirable on tests of this type. A reliability of .80 is considered good (Garson, 2011, "Key Concepts and Terms" p.1).

2. Validity Inherent in the Delphi Method Protocol

The Delphi method provided a strong foundation for content validity in the construction of the Civic Knowledge Inventory. The Delphi technique can be used to address complex problems. The consensus and position of a group of experts is reached after eliciting their opinions on a defined issue and it relies on the accuracy of "informed intuitive opinions of specialists" (Helmer 1983:134). This collective judgment of experts, although made up of subjective opinions, is considered to be more reliable than individual statements and is thus more objective in its outcomes (Johnson & King 1988, Helmer cited in Masini 1993).

3. Item Analyses

Item analysis was used to improve test quality by allowing for more informed decisions on which items should be retained and which should be edited or replaced. The focus of this item analysis included an assessment of A) item difficulty, B) item discrimination and C) item response distribution patterns. Items were also assessed in terms for their D) alignment to the identified civic concepts and E) placement within Blooms Revised Taxonomy. Results from this item analysis offered insight into examinee's option selections. Characteristics of good questions and item-writing errors are contributions that item analysis offers test makers (Hannah & Dettmer, 2005, p.251).

A. Item Difficulty Measures

Using responses from the preliminary examinees, an item difficulty index was completed for each item. The item difficulty identified test items that were too easy or too hard by examining the percentage passing a test item. The percentage for each item is considered the item difficulty index. Unless the test measure has very high internal consistency, items with very high and low difficulty index (too hard or too easy for most students) contribute less to the

validity and reliability of the instrument than do items in the middle of the difficulty index (Krathwohl, 2009, p. 418). Once items were identified they were categorized as needing to be revised, omitted or substituted with new items.

An item index or “P-Value” was calculated for each test item on the CKI to determine item difficulty. The “P-Value” is most commonly employed item-difficulty measure. The following calculation determined item difficulty: Difficulty is $P=R/T$. In this equation, “R” is the number of students or individuals responding correctly to an item. “T” is the number of students answering correctly to an item. A P-value can range from 0.0 to 1.00 with higher P-values indicating that more students answered the item correctly. The P-value should be assessed in relationship to the examinee’s chance probability of getting the item right. On a four-option test such as the civic knowledge inventory, the chance probability is .25 that the correct option was selected by chance alone. Therefore, items required a score over .25 or below .75 to be included in the final instrument.

Though the P-value is referred to as its difficulty index, it is an error to say that high scoring items are easy and low scoring items are difficult. These descriptions may or may not be accurate. If students are well taught, they may perform excellently on a complex item that has been taught effectively.

B. Item Discrimination Index

The contribution of the item to predictive validity is expressed by an item discrimination index. A differentiation index is a measure of an item’s agreement with the total score. The test item discrimination index shows how well each item predicts or contributes to the total score (Krathwohl, 2009, p.418). Items showing low correlation with the total score are measuring something other than what the other test items are measuring. Instrument reliability scores are

increased after eliminating items with low correlation. Patterning new items after the remaining items that have demonstrated high correlation with the total test score enhances reliability. Item discrimination calculations can draw attention to high and low scores, uncovering suspect items. The focus on the discrimination value of items can draw attention to validity issues.

Differentiation indices can have a possible range from -1.00 to 1.00. Most items would have a P-value that range from 0.0 to about 0.5. To estimate the correlation between each item's score and the total score the following steps were taken:

1. Arrange test results from high to low score.
2. Remove the highest and lowest 27% (approximate) scores.
3. For each item, tally the number of persons in the high group who responded to each option. Repeat this for the low group.
4. Convert these tally marks into numerals. Then convert the numerals into decimal fractions by dividing each of these numbers by the number of persons in the high or low group.
5. Estimate an item's differentiation index by subtracting the decimal fraction of the low group that responded correctly from the decimal fraction of the high group that answered correctly. Do the same for each option (a-d) of that item.
6. Estimate the proportion passing each item in both groups (P-value) expressed as a decimal fraction by computing the mean of the fraction of the two groups that answered correctly. Items that all students miss or no student miss would have high P-values. These items would not differentiate between those who know and those who don't know the information being tested. An item with perfect differentiation would be answered by all high scoring examinees and missed by all the low scorers. The ideal P-value is about 50%. The resulting statistics allow for the careful study of the content of the questions from a validity perspective.

There are several popular theories on what difficulty level provides good differentiation. For a four-option multiple-choice items, the traditional differentiation standard of performance calls for .63 percentage cut-off for passing an item. The Lord's target (1952) offers a complex rationale for adjusting the traditional level to an ideal .74 percentage passing per item. Popham

offers a chart that can be used to select items. Popham (2005) suggests using the chart below to assist with item selection (p. 5).

**Table 3.5: Guidelines for Evaluating the Discriminating Efficiency of Items
(Ebel & Frisbie, 1991)**

Discrimination Index	Item Evaluation
>.40 and above	Very good items
.30-39	Reasonably good items
.20-29	Marginal items, usually needing improvements
.19 and below	Poor items, to be rejected or improved by revision

C. Response Distribution Patterns

Items with distractors that had no responses were considered weak. Distractors that draw high number of responses were carefully reviewed. The analysis of the distractors used for each test question resulted in the deletion of the item based on researcher judgment. Due to the preliminary nature of this research, distractors that drew 5 or fewer responses were included in the CKI. These distractors were tagged for further study and possible revision.

A chart was created summarizing the examinee responses for each item. Careful attention was given to response pattern distributions. Items that have data demonstrating high numbers of responses to wrong distractors or low responses of correct answers were carefully investigated for revisions or removal.

D. Alignment to Civic Concepts:

The modified Delphi method provided a list of seven concepts and related sub-concepts. Each item was written to measure one of the selected seven concepts. A chart of how these

items linked to each concept was created. Patterns of redundancy were noted as well as concept areas not sampled by the CKI. Careful attention to the alignment of retained items will be noted in the recommendations of this study.

E. Categorizing Questions using Blooms New Taxonomy

Each question on the civic knowledge inventory is a measure of primarily knowledge, understanding or applications of the targeted civic construct. Using Blooms Taxonomy Revised (2001) provided additional information when retaining or removing an item and helped to maintain a balance of remember and understand questions in the CKI (see Table: 2.1) The levels of Bloom's Revised Taxonomy (2001) represented on the CKI are listed below as measured by multiple-choice concepts.

- Remember: Can students recall or remember the information?
- Understand: Can the student explain ideas or concepts?
- Apply: Can students use the information in a new way?
- Analyze: Can the student distinguish between the different parts?

F. Summative Item Evaluation

This item analysis generated a list of suggested revisions to the CKI. Using preliminary data, items were separated into one of four categories categorized with explanations accordingly:

- Retain-high performing item
- Remove-low performing item
- Revise-moderate performing item

- Remove and replace-low performing item aligned to construct. New items are only needed to reach goal of approximately seven high performing items per civic construct.

Part B: Qualitative Data: Student Interviews

When trying to examine the validity and reliability of a test, a researcher can use judgment to analyze items. Popham reminds researchers not to overlook students as a source of judgment to improve tests. It is important that the students complete the test before engaging in a judgmental exercise, however. Finally, Popham (2005) advises test makers to list to other reviewers, but be guided by their own judgement about the virtue of what is being said.

Interviews were conducted with five participants. Validity issues will always over-ride reliability issues. If the item was judged as being valid, the reliability scores were noted, yet did not result in the revision or elimination of the item being judged. For example, there might be reasons to leave an easy item that scored low (it provides good differentiation) on the test. In addition to the CKI item pool test data, a group of approximately five volunteer participants were given a shortened CKI test and individually interviewed in the spring of 2011. These interviews allowed for observation of test clarity, question understanding, and test time frames to be determined.

Five volunteer participants were given a paper version of the inventory followed by an interview conducted to uncover additional information regarding the participants' understanding of the test items. Interviews with volunteer participants were held as they completed the inventory. The reflections of the participants and their understanding of questions were then analyzed qualitatively by searching for common themes or patterns.

Five examinees were given the instrument individually by the researcher by reading the items aloud along with choices to allow for better understanding of item construction and

difficulty. Participants were given professional service hours and refreshments for an approximately two hour interview session. The interviews conducted adhered to the following protocol. Each examinee was given a paper copy of the revised CKI. After each item the following questions were asked:

1. What is the question asking you? (Restate question if possible)
2. What does each response mean?

Qualitative data was collated by item and highlights are presented as part of the item analysis section of Chapter 4. Any items, directions, or vocabulary demonstrating confusion in stem or response were further evaluated.

Protocol for Revising the CKI

The following criteria were used to delete an item from the CKI (Hannah and Dettmer, 2005). It was not intended for the leadership team to provide revised or new items to the civic knowledge inventory at this time. Additional edits may be made after additional data is gathered and analyzed using the retained questions. Item performances were summarized and a professional judgment using a holistic rating scale was used based on the following criteria:

Figure 3.1: Criteria for Evaluating CKI Item Performance

a. Criteria for Retaining an Item

1. Items with a difficulty level at or above .70
2. Items with a difficulty rating at or below .30
3. Items with a discrimination factor at or above .30

b. Criteria for Removing an Item

1. Items with a difficulty level lower than .70
2. Items with a high difficulty rating of .30

3. Items with a discrimination factor below .30

c. Criteria for Recommending Revising an Item

1. Item Stems: Confusion with questions stems or distractors were considered after analysis of pre-service interviews.
2. Item Distractors: Response patterns demonstrating that the foil is ineffective by yielding too many respondents or too few;
3. Items recommended for further study included; distractors with a low response rate, distractors not equitably selected and revisions suggested by individually interviewing five seniors.

Quality Considerations

The Delphi method uses protocols to promote quality results. The careful selection of panel experts and the anonymity allow for a “free-flow” of ideas among a very informed group. This adds to “construct” validity. The use of technology allowed for the process to invite geographically diverse panelists to engage in thinking about the posed tasks in Phase I and Phase II of this project over an extended period of time. Participants could access archived information on K-State On-line. This access combined with anonymity allowed for panelists to provide a “checks and balances” to the Delphi facilitator’s work. The summaries could be monitored for facilitator bias or misinterpretation. The available audits by panelists allowed the Delphi process to be “transparent” to all involved. Limitations of this protocol were related to the instability of data from a single sample or class. The initial sample, although small in numbers, was collected from two independent university sites. Future data accumulated over time will provide a more stable statistic per item and guide future revisions.

Consideration to maintain high quality related to validity of the CKI includes the limitation of the number of concepts to be tested to a manageable number that can be effectively

assessed. There were seven targeted concepts to be measured by the civic knowledge inventory. Limits were made to include approximately eight to ten items per concept in the CKI preliminary test. The number of items needed to test each concept was determined by the professional judgment of the research team to be approximately 5-7 items depending on the breadth of the concept. Some concepts measured by multiple-choice test are more complex than others. Therefore, some highly complex major concepts required more questions and the number of items per major concept is not even.

Demographic data collected as a part of the CKI.

Demographic data included majors, minors, teaching certificate and areas of study related to the social sciences (see Appendix G: Civic Knowledge Inventory 2011 Delphi Panel Item Rankings and Averages). The information collected provided data on the participant's civic coursework at the high school and college level to look for patterns. In addition, a survey recorded participant confidence in the seven civic concept domains measured, were included as a background survey at the beginning of the civic knowledge inventory. This survey provided a general landscape of information that describes the participating seniors' preparation in civics and related areas of Social Studies and confidence in the concepts creating the framework for the civic knowledge inventory. Finally, a general analysis of a participant's background collected from the survey at the beginning of the inventory to determine the profiles and subgroups of participants can be included in future research studies. Therefore, a summary description of the group taking the inventory could be included in a follow up investigation. Any obvious correlations between background and performance should be explored in future studies.

Summary

This chapter described the research methods of a unique project using the Delphi method to identify and assess the most important civic concepts that elementary teacher should know to be effective civic educators. *Phase I* outlines the steps used to apply the Delphi method to identify key civic concepts. *Phase II* describes how test items were constructed to measure future teachers' knowledge and understanding of these concepts. The resulting item pool was administered to pre-service elementary teachers during their senior year. An item analysis was then conducted to determine the best functioning items. The item analysis included an assessment of item difficulty, item discrimination, and item response distribution patterns. Results from this item analysis offered insight into examinee's option selections. Rubrics guided a holistic scoring that allowed researchers to determine which items to retain per major construct. Items also were examined in relation to their alignment with civic concepts and their placement along Boom's Revised Taxonomy. Finally, an interview with five college seniors was completed using the final CKI. Results gathered from this project will be discussed further in Chapter 5 as they relate to the two research questions of this study.

CHAPTER 4: Findings: Assessing the Civic Knowledge Inventory

The major sections of this chapter summarize the qualitative and quantitative results of the Delphi research plan as they relate to the two research questions being investigated. Research question one relates to the project's *Phase I* and the use of the Delphi method to identify key civic concepts all elementary teachers should know and understand. Research question two aligns to the Delphi project's *Phase II* by using data from administered test items to describe the success levels of the inventory item pool. The test items analyzed were created using the Delphi method and aligned to the Delphi panel's identified civic construct map. Finally, an outline of five interviews summarized in descriptive detail provides evidence of item clarity, comprehension and test takers overall comfort with retained items. Therefore, the results presented in this chapter include an item analysis, item difficulty, item discrimination, response pattern distribution along with interview results. The final decisions to remove or retain each item will also be presented. Reliability and validity results for the retained items are calculated for 47 of the retained items. The results for this study will be presented as they relate to each question. The chapter concludes with a summary of results.

Identifying Important Civic Constructs Elementary Teachers Need to Know

The first question of this study was: To what extent and in what ways is a modified Delphi technique useful in identifying the most important civic concepts elementary teachers should know to be effective civic educators? Using the Delphi method leading civic educators from across the United States identified the following major civic constructs:

- constitutionalism

- representative democracy
- citizenship
- human rights
- civil society
- market economy
- examples of non-democracy

Ten rounds over six months of collaboration and feedback between civic expert panelists led to this list of seven essential civic constructs. Related sub-concepts and elements created a clear and concise concept map to guide instrument construction (see Figure 4.3: Civic Concept Map Created by the Delphi Panel). Each step of the research plan offered opportunities for discussion and deliberation between anonymous civic scholars. Dialogue included both compliments and critiques between panelists while the facilitators remained neutral in their roles as compilers and reporters. As the sharing progressed, panelist postings created evidence of their revised thinking.

To begin the study process, the eight scholars were given the following instructions via Kansas State Online (KSOL) in *Phase I*, step one:

1. Identify the most important or essential content knowledge that elementary teachers should know to be “effective civic educators.” For step one, do not be concerned about the generality or specificity of your concepts. Also, you may wish to consult resources outside those recommended.
2. When your list is complete, save the file to your computer then upload your document to KSOL using the following steps.

(The Delphi Project, KSOL, Step 1)

The chart below is a first-round sample list of civics concepts submitted by one anonymous scholar, code-named “Apollo.” Initial lists called for panelists to create a range of concepts. The next steps helped participants to debate, combine, categorize, and eliminate concepts. Panelists voted on the top list and continued to work to improve the adopted selection

until all agreed to move forward to test construction. Eventually, the Delphi panel identified a set of seven core civic concept categories. Looking at Apollo's lists demonstrates how one panelist's thinking evolved throughout the process. This type of online communication between panelists helped guide each panelist toward a thoughtful revision of their own lists as the group worked toward their common goal of indentifying key civic concepts that all elementary teachers should know and understand.

Figure 4.1: Apollo's List 1

Sample - Core Civic Concepts for Elementary Teachers: (Apollo)

1. The importance of being an active participant in your group(s) and community.
2. The importance of being as informed as possible about community affairs.
3. The importance of seeking fairness and justice in the distribution of benefits and burdens.
4. The importance of defining and modeling civic virtue.
5. The importance of constitutional government.
6. The importance of limited government.
7. The importance of checks and limitations on government authority.
8. The importance of privacy and private property.
9. Knowledge of what constitutes legitimate authority.
10. Knowledge of what constitutes responsible behavior.
11. Knowledge of what constitutes the essentials of justice.
12. Knowledge of what constitutes due process.
13. Knowledge of the importance of freedom of conscience and freedom of religion.
14. Knowledge of the importance of freedom of speech and expression.
15. Knowledge of the importance of freedom of assembly.
16. Knowledge of one's right to resist illegal and/or unconscionable demands.
17. Knowledge and examples of patriotism.
18. The importance of freedom from discrimination.

19. The importance of fostering maximized situational independence.
20. The importance of demonstrating compassion for everyone.
21. The importance of the relationship between truth and trust.
22. The importance of truth to human relationships.
23. The importance of transparency to trust.
24. The fundamental purposes of government.
25. The concept of a social contract between the citizen and the government.

(Apollo, Delphi Project, KSOL, Step 1)

During Delphi *step two*, the participants selected their favorite concepts, ranked them, and included a written rationale. The Delphi group evaluated and revised their list using the same anonymous process and following the instructions for *step two*:

1. The lists of the seven other panelists are in your step two folder. Compare your list to the lists of the other panelists.
2. Based on your review of the other lists, revise and edit your list as needed.
3. Organize your list in outline format to show the relationships among and between ideas.
4. When your outline is complete, save the file to your computer then upload your document to KSOL using the following steps.

Apollo's input included the following statement about the civic concept task, which is representative of the spirit of the process:

Our charge, "identify the most important civic knowledge concepts that elementary teachers need to understand to be effective civic educators," has proven to be quite challenging. This charge contains a request for the identification of content (civic knowledge concepts) that serves a pragmatic purpose (being an effective civic educator). The emphasis in this statement is on actions that could be of two types: (1) the purposeful and overt teaching of the identified content, and (2) the teacher's willingness and ability to actively live out the ideas/ideals in his or her classroom. Both types of action require well-developed, finely articulated thinking regarding important civic knowledge concepts, and in my opinion, both forms of action are necessary if we are to have effective civic education. (Apollo, The Delphi Project, KSOL, Step 1)

This statement was one example of the commitment and deliberation among scholars.

The following is a sample comment from another participant about Apollo's list:

Good emphasis on core concepts of constitutional democracy. Keep in mind that in a constitutional democracy most rights are guaranteed to all persons under the authority of the government. Only a few rights are restricted only to citizens, such as the right to vote. Good emphasis on values; I prefer the term civic virtues. (Zeus, The Delphi Project, KSOL, Step 1))

The final list of civic concepts suggested as significant for all elementary teachers to know and understand was completed after six months of Delphi group processing over ten steps of facilitated deliberation and evaluation. Each participant rated the group's work with each round of deliberation. As the group ranked and re-ranked each other's concepts, including agreements and disagreements throughout the process, a common theme of seven categories emerged that satisfied all participants. The scholars adopted the Delphi group advice when appropriate and ultimately came to consensus about categories.

Here is an example of how a panelist's thinking changed over time. Apollo's list developed in clarity from a list of twenty-five concepts to clearer selected categories over the course of several rounds of discussion.

Figure 4.2: Apollo's List: Step 2

I. Modeling Democracy In Daily Classroom Practices

Defining and modeling civic virtue
Consciously sharing power and authority to the greatest extent possible that is appropriate for the age of the students
Recognition of abuses, excesses, and corruptions of key concepts and values (see Butts, R.F. 1988) related to democracy
Fostering active participation of all students
Seeking fairness and justice in the distribution of benefits and burdens

II. Key Rights of Citizens in a Democracy

Privacy and private property
Freedom of conscience and religion
Freedom of thought and expression
Freedom of assembly and affiliation
Right to resist illegal and/or unconscionable demands
Right to resist unreasonable search and seizure

III. Core Concepts, Values, Ideals

- Legitimate authority (tools for understanding)
- Responsible behavior (tools for understanding)
- Privacy (tools for understanding)
- Essentials of justice (tools for understanding)
- Due process (substantive and procedural)
- Patriotism
- Freedom from unjustified discrimination
- Maximized situational freedom/independence
- Compassion and empathy
- Relationship between truth and trust
- Relationship of transparency to trust

IV. Key Concepts of Government

- Fundamental purposes of government
- Structure and functions of our democratic government
- Knowledge of the appropriate functioning of the three branches of government
- The concept of limited, constitutional government
- Checks, balances, and limitations on government authority
- Functional interrelationships of local, state, and national
- Importance of rule of law
- The concept of law as a higher authority
- Fair and effective law enforcement
- Fair and impartial judiciary
- Holding leaders accountable
- Procedures for the removal of all elected officials
- Universal suffrage, and free, frequent, transparent, and contested elections
- Civilian control of the military
- Efficient, honest government
- Social contract between the citizen and the government
- Popular sovereignty
- Importance of political participation
- Minority rights within majority rule

V. Market Economy

- Origins (a la Adam Smith & John Stuart Mill)
- Strengths and weaknesses
- Government regulation
- Public versus private interests/property

VI. Politics

- Functions of political parties
- Nature of major political parties
- Political corruption
- Campaigning
- Lobbying

(Apollo, The Delphi Project, KSOL, Step 2)

Civic Concept Map Created

Throughout the Delphi process, participants adapted and refined their construct lists like Apollo. Panelists shared ideas until a final set of civic constructs, sub-concepts and elements was completed. A final ranking of major civic constructs, sub-concepts and elements resulted in the panel's adoption of Zeus's outline. Although Zeus's list was voted to be the preferred list, the group continued to refine Zeus's list until the group was satisfied. This meant that the list was

final only after there were no more suggested modifications. The final list of constructs and sub concepts and elements outlined by the panel in Table: 4.3 was considered the projects' adopted concept map and the framework used when writing items when developing the measurement tool.

Figure 4.3: Civic Concept Map Created by the Delphi Panel

I. Constitutionalism

- A. Rule of Law
 - 1. Due process
 - 2. Equitable enforcement
 - 3. Equal protection of the law
 - 4. Equal justice under the law
- B. Limited Government
 - 1. Powers are enumerated
 - 2. Powers are separated and distributed among different departments or branches
 - 3. Checks and balances system among the departments or branches
 - 4. Decentralization of power throughout the state
 - 5. Accountability to the people through a democratic electoral process
- C. Constitutional Government
 - 1. Constitution, framework for government, usually a written document
 - 2. Government functions within the framework
 - 3. Government both empowered and limited to achieve ordered liberty
 - 4. Separation of powers with checks and balances to both empowers and limit government
 - 5. Independent judiciary with power of judicial review to maintain limited government.
- D. Forms of Constitutional Government
 - 1. Federal System (Federalism)
 - 2. Confederal System (Confederalism)
 - 3. Unitary System

II. Representative Democracy

- A. Popular Sovereignty
 - 1. People as source of authority for government
 - 2. Government by consent of the governed, the people
- B. Electoral Democracy
 - 1. Free, fair, competitive, regularly scheduled elections
 - 2. Inclusive eligibility to vote for representatives in government
 - 3. Indirect majority rule by the people through their elected representatives
 - 4. Inclusive participation by the people to influence representatives in government
 - 5. Two or more political parties
 - 6. Accountability of representatives to the people
- C. Public Policy

III. Citizenship

- A. Citizen, legal status
 - 1. Natural citizen
 - 2. Naturalized citizen
- B. Civic Identity
 - 1. Common attribute of citizens
 - 2. Common bond of a civic community
 - 3. Commitment to common civic culture
- C. Civic Dispositions

1. Characteristics of the good citizen
2. Civic virtue
3. Civic morality
- D. Civic Duties and Responsibilities
 1. Civic and political engagement
 2. Loyalty to the state and government
 3. Commitment to the common good
- E. Rights of Citizenship (Exclusive to the status of the citizen)
 1. Voting for Representatives in Government
 2. Qualification to hold certain high government offices

IV. Human Rights

- A. Political and Public Rights
 1. Voting
 2. Political participation beyond voting
 3. Civil liberties necessary to free political participation
- B. Personal and Private Rights
 1. Freedom of conscience
 2. Right to be left alone (privacy)
 3. Personal pursuit of happiness
 4. Private property rights
- C. Economic and Social Rights
 1. Social security and welfare entitlements
 2. Right to an education
 3. Right to minimum income
 4. Right to safe working conditions
- D. Rights of Accused Person
- E. Ongoing Issues on Government's Responsibilities for Rights
 1. Political and personal rights: what should the government be constitutionally prohibited from denying to individuals?
 2. Economic and social rights: what should the government be constitutionally empowered to provide for individuals?
 3. Equality and fairness for all the people in their exercise of a right and receipt of entitlements: How do we know when justice is achieved in the distribution of rights and entitlements?
 4. Right to dissent

V. Civil Society

- A. Pluralism and diversity in the society
 1. Free expression and exercise of various individual and group interests
 2. Freedom of association
 3. Multiplicity of social, cultural and political identities
 4. Voluntary civil associations or non-governmental organizations
 5. Regulation of society by government to prevent either anarchy or tyranny
- B. Private Sources of Social-Political Power and Resources
 1. Nongovernmental organizations and institutions as private sources of support for the common good
 2. Nongovernmental organizations and institutions as countervailing forces against despotic tendencies in government
- C. Open and Free Social Order
 1. Flexible social class structure
 2. Equality of social opportunity
 3. Upward mobility based on merit
 4. Freedom within a context of regulation by government in a representative democracy

VI. Market Economy

- A. Free Market
 1. Freedom of exchange
 2. Protection of private property
 3. Productive use of capital
 4. Regulation by the government to prevent either economic anarchy or monopoly capitalism
- B. Private Sources of Economic and Political Power and Resources
 1. Non-governmental economic organizations and institutions as private sources of power for the common good
 2. Non-governmental economic organizations and institutions as countervailing sources of power against the despotic tendencies of government
 3. Freedom of opportunity for individuals to obtain and cultivate economic capital
- C. Open and Free Economic Order
 1. Equality of economic opportunity
 2. Economic rewards based on merit
 3. Economic freedom within a context of regulation by government in a representative democracy

VII. Examples of Non-Democracy

- A. Totalitarianism/Socialism/Communism
- B. Authoritarianism
- C. Autocracy
- D. Absolute Monarchy
- E. Aristocratic Oligarchy
- F. Theocracy
- G. Non-democratic Republic

The final round of the Delphi protocol allowed for panelists' final comments and concerns. Step 10 required all members to agree on the final list. With this final step, the panel endorsed the outline created and considered the completion of *Phase I* of this project a success. The panel was now ready to use this document as a foundation for preparing a survey instrument to measure future civic educators' progress in learning these key civic constructs.

In response to question # 1, the data presented here suggests that a modified Delphi technique is useful in combining expert ideas when identifying the most important civic concepts elementary teachers should know to be effective civic educators. The Delphi panel of civic experts communicated through anonymous nested responses to each other's concept lists. Honest, candid comments were fluid between participants. Responses for all steps were archived throughout the process and always available for review. Panel identities remained anonymous and the project facilitator moderated the feedback and summaries of all rounds in a neutral fashion.

One important design element of the process is the fact that the experts did not directly interact with one another, but rather submitted their responses independently. The anonymity of this method prevented some of the negative impacts of the social processes because it equalized the panelists' personalities by focusing only on ideas and feedback. As directed, panelists examined each list and posted critical responses until all contributions were read, analyzed, criticized, re-evaluated, summarized and re-posted. Zeus's list became the highest ranked and was adopted by the panel as the most comprehensive once panelists suggested changes.

Ultimately, a comprehensive civics construct map was developed to represent the most important civic concepts elementary teachers should know to be effective civic educators.

Assessment Results for the CKI

The second research question of this study was: To what extent and in what ways is the Delphi method a useful tool in the development of a valid and reliable instrument to measure the identified key civics concepts? The following results discuss the performance of items created by a Delphi technique to measure important civic constructs identified as important for all elementary teachers to know and understand.

At the project's completion, the Delphi panel had created an item pool of 74 questions considered highly ranked by the group, forty-seven of the selected items were retained creating a reliable instrument with a Cronbach's Alpha of .812. Question retention for each of the seven major civic constructs was over fifty percent. As a result, each major construct measured aligned to five or more questions on the final CKI (2011). Items related to the constructs of constitutionalism and representative democracy had a retention rate of over .70 (see Table 3.1: Identifying Key Civic Knowledge Concepts Using A Delphi Method).

Table 4.1: Civic Knowledge Inventory: Recommended Revisions

I. Constitutionalism = 7

CKI Item #	Item Difficulty P-value	Item Discrimination P-value	Recommendations: R=Retain X=Remove
29	.55	31.3	R
31	.78	52	R
37	.49	15.1	X
51	.74	40.2	R
52	.67	28.6	R
57	.49	33.9	R
59	.47	30.5	R
78	.62	53.2	R
80	.30	11.3	X
87	.42	19.0	X

II. Representative Democracy = 7

Item #	Item Difficulty P-value	Item Discrimination P-value	Recommendation R=Retain V=Revise X=Remover
24	.91	-1.6	X
27	.42	49.0	R
30	.42	52	R
34	.78	34.1	R
44	.25	31.6	R
56	.53	34.5	R
77	.36	22.4	R
82	.11	9.4	X
90	.38	26.2	R
95	.48	-2.1	X

III. Citizenship = 5

Item #	Item Difficulty P-value	Item Discrimination P-value	Recommendation R=Retain V=Revise X=Remover
28	.18	-19.5	X
32	.44	26.8	R
53	.19	-19.9	X
54	.54	42.1	R
63	.57	24.4	R
67	.23	13.6	X
68	.40	-0.2	X
85	.78	4.5	R
91	.21	-11.8	X
93	.40	46.9	R

IV. Human Rights = 6

Item #	Item Difficulty P-value	Item Discrimination P-value	Recommendation R=Retain V=Revise X=Remover
35	.62	39.8	R
38	.82	30.2	R
39	.92	51.7	R
48	.94	6.5	X
55	.70	58.6	R
58	.55	20.1	X
60	.58	26.2	R
64	.58	27.7	R
70	.83	16.1	X
84	.17	-9.2	X
86	.28	4.3	X

V. Civil Society = 7

CKI Item #	Item Difficulty P-value	Item Discrimination P-value	Recommendation: R=Retain V=Revise X=Remover
22	.10	13.1	R
25	.20	24.3	R
26	.39	37.7	R
33	.32	17.8	X
49	.21	6.5	X
61	.50	20.6	X
65	.54	31.3	R
66	.61	35.2	R
75	.37	33.6	R
76	.23	-23	X
88	.61	49.8	R
92	.18	9.7	X

VI. Market Economy = 8

Item #	Item Difficulty P-value	Item Discrimination P-value	Recommendation R=Retain V=Revise X=Remover
23	.43	45.7	R
36	.78	26.7	R
40	.72	51.7	R
62	.82	19.5	R
69	.43	52.4	R
71	.42	45.5	R
73	.37	18.2	X
74	.79	37.6	R
83	.51	31.3	R
89	.45	-29.7	X

VII. Examples of Non-Democracy = 7

Item #	Item Difficulty P-value	Item Discrimination P-value	Recommendation R=Retain V=Revise X=Remover
41	.55	31.7	X
42	.34	0.1	X
43	.55	19.8	X
45	.47	45.9	R
46	.56	35.5	R
47	.84	34.1	R
50	.68	36	R
72	.33	29.3	X
79	.57	31.3	R
81	.47	41.6	R
94	.75	37.6	R

Item Difficulty

Item difficulty was used to identify items that were too easy or too hard by examining the percentage of teacher candidates passing a given item. Therefore, difficulty indexes represent the percentage of correct answers. Unless the measure has very high internal consistency, items with very high and low difficulty index (too hard or too easy for most students), contribute less to the validity and reliability than do items in the middle of the difficulty index (Krathwohl, 1998 p. 418). Items identified for removal demonstrated high difficulty measures. The item difficulty measures for the remaining CKI questions are presented by construct in Table 4.1 (see Table 4.1: Civic Knowledge Inventory: Recommended Revisions).

The most commonly employed item-difficulty index, often referred to as a “p-value.” is used to compare the level of difficulty among test items. The following calculation determines item difficulty: $\text{Difficulty is } P = R/T$. In this equation, R is equal to the number of students responding correctly to an item as compared to T, calculated as the total number of students responding. A p-value can range from 0.0 to 1.00 with higher p-values indicating that more students answered the item correctly. The p-value was assessed in relationship to the examinee’s chance probability of getting the item right. On a four-option test such as the CKI, the chance probability is .25 that the correct option was marked by chance alone. Therefore, the criteria for each item ideally would have a p-value between 40-50 (Hannah and Dettmer, 2005, p. 525-257). However, using their professional judgment, examiners may choose to include questions outside of this range. Ten items had p-values that fell near the ideal 40-50 ranges. After careful examination, the researcher selected items to be retained, removed or revised based on the items’ over-all performance results.

There are two popular theories on what difficulty level provides good differentiation. For four-option multiple-choice items, the traditional target calls for .63 percentage score passing the item. The Lord's target (1952) offers a complex rationale for adjusting the traditional level to an ideal .74 percent fraction passing per item. All things being equal, Lord's Target yields only slightly greater reliability (Hanna & Dettmer, 2004, pp. 255-257). The Lord's target of .74 percent was selected to represent the optimal range desired for the CKI.

Item difficulty measures investigated in this project recorded the percentage of correct answers. Using the standard for desired difficulty, items that fell between .20 percent and .80 percent were considered to be in a reasonable range of difficulty (Hannah and Dettmer, 2005, p. 304). There is always judgment in including questions that perform outside of this range. Edited questions can improve their performance. Revisions of distracters can also have great impact on item performance making it easier or harder. Ultimately, questions that performed outside of the recommended guidelines were analyzed and removed using item difficulty, discrimination, and interview data along with researcher professional judgment.

Item Discrimination

Item discrimination allows items to be rated on how they are answered by students in the high and low performing quartile of a data set. The idea that top scorers should get the item correct while a low scorer gets it wrong provides a high discrimination factor. If both high and low groups get the item wrong, it would have a low score as it does not discriminate between groups. The item discrimination index shows how well each item predicts or contributes to the total score (Krathwohl, 1998). Items showing low correlation with the total score are measuring something other than what the other test items are measuring. Eliminating items demonstrating low correlation scores can increase instrument reliability. Therefore, a differentiation index is a

measure of an item's agreement with the total score. Item performances create scores in a range from -1.00 to 1.00. Most items would have a p-value that ranges from 0.0 to about 0.5. To estimate the correlation between each item's score and the total test score the following steps were taken:

1. Arranged test results from high to low overall score.
2. Removed the highest and lowest 27% (approximate) scores.
3. For each item, tallied the number of persons in the high group who responded to each option and repeated this for the low group.
4. Converted these tally marks into numerals. Then converted the numerals into decimal fractions by dividing each of the numerals by the number of persons in the high or low group.
5. Estimated an item's differentiation index by subtracting the decimal fraction of the low group that responded correctly from the decimal fraction of the high group that answered correctly.
6. Estimated the proportion passing (p-value) expressed as a decimal fraction by computing the mean of the fraction of the two groups that answered correctly (This was done by adding the two fractions and dividing by two.).

Items that all students missed or no student missed would have high p-values. These items would not differentiate between those who know and those who do not know the civic concepts being tested. An item with perfect differentiation would be answered by all the high scoring examinees yet missed by all the low scorers.

Test construction standards consider discrimination scores greater than .40 desirable. The results for each CKI item are included with the item analysis in Table: 4.1 (See Table 4.1:

Civic Knowledge Inventory: Recommended Revisions). This chart summarized the results from the item analysis used to judge each item's performance. Each item analyzed for item difficulty looking for items that were too easy or too difficult by investigating the number of students passing the item, and item discrimination determining the top scorers' success rate compared to the bottom scorers' performance on the same item. Any items retained had a discrimination score greater than .40 unless item difficulty measures conflicted. In this case, the researcher made a judgment dependent on the performance of other items measuring the same civic construct.

Recommendations for retained items for each of the seven concepts measured are listed in table 4.1. After the item analysis, several items were selected by the researcher to be removed due to poor performance using the item analysis results. The remaining 47 items were recommended to be included in the final CKI measurement tool (see Table 4.1: Civic Knowledge Inventory: Recommended Revisions).

Response Pattern Distribution

Incorrect responses to multiple-choice test items are called distractors. Response pattern distributions describe test takers responses to distractors. Ideally, if test items are responded to incorrectly, the incorrect responses should be equally spread across all distractors. An analysis of distractors is a critical element of item analysis in test construction. Distractors selected by respondents too frequently or too infrequently are considered in Appendix C (See Appendix C:

Item Analysis of the 47 Retained Items).

It was determined that the questions in the CKI would remain the original work of the Delphi panelists whenever possible. Response distribution indicates that some distractors are evenly distributed as expected; however, some distractors were selected infrequently. There are

questions where the selections were popular toward one wrong response compared to others wrong answers. As previously mentioned, ideally, errors should be spread among all three distractors. Yet, for the scope of this research, it was decided to leave the distractors as they are at this point in the development of the CKI and recognize this as a limitation of the study.

This researcher noted that some distractors were more effective than others (as reported in Appendix C). A few retained items were determined extremely weak in distractor distribution, yet effective enough overall until further study. It might serve future studies to have panelists review results and discuss responses to determine which items need further revisions or replacement. Items with distractors that had no responses are weak in design. In addition, distractors that drew high numbers of responses needed careful review.

An analysis of the distractors alerted researchers to look more carefully at any item that had uneven distributions of responses other than the correct answer. For example, the question below had two responses for selection “B” and four responses for choice “A.” The correct answer “C” and was selected 36 times, yet distractor “D” had 47 responses. It seems that “D” seemed logical to most participants. Distractors “A” and “B” should be revised as they are not performing, making this question practically a two reasonable response item multiple-choice item allowing chance (luck) to reach a level of 50/50 increasing testing errors (false positives).

93. Naturalized citizens

A. do not have the right to vote (4)

B. are required to speak English (2)

C. cannot serve as president or vice president of the U. S. (Correct 36)

D. were born on United States Soil. (47)

The preliminary study yielded results showing seventeen questions had five or less responses recorded for at least one distractor.

Table 4.2: CKI Results: Distractors with 5 or Less Responses (N = 89)

CKI Question #	Frequency “A”	Frequency “B”	Frequency “C”	Frequency “D”
25			3	
29		5		4
31			1	
32		4		
34				4
35	3			
36		5		
38	4			2
39	1		3	3
40	1			5
45				
46			4	
47		2		0
50				4
51		4	5	
55				4
56	4		5	

Items that were included in the CKI remain in original form. However, revisions of original question stem and distractors are goals for further study. The completion of this study will lead to inevitable revisions of several remaining items in future studies to improve test performance.

The Delphi Technique and Instrument Construction

The remaining data presented below relates to the Delphi method as a useful tool in the development of a multiple-choice instrument to measure elementary teachers civic knowledge. The four steps in *Phase II* of this research were used to develop a 74 item pool aligned to the civic concepts identified in Phase I. This process and the resulting discussions and feedback continued for nearly six weeks.

Phase II began with requiring the panel to read a document called “Tips for Writing Test”(see Appendix B:). The Delphi panelists were not only civic experts, but also civic educators with experience in constructing test items for measures of student performance at the college level. For consistency and common language, the panelists were required to review the guidelines for reviewing multiple-choice questions and then asked to write two items for each of the seven civic concepts using the outline they created (see Appendix B:).

The questions posted online by panelists were peer edited, and revised through three rounds of interactions. The statements below are examples of dialogue related to the concept of “citizenship”. Comments of panelists are presented below as they were summarized and reported to panelists.

Apollo: Could the correct answer on #15 say violent instead of hostile? After all, hostility is not against the law.

Aries: 1. Is incorrect; there are only 2 citizenship responsibilities—to vote and to serve on a jury when called. Only citizens are responsible for paying taxes? #3 being law-abiding is not virtuous? 12 is incorrect; 13 is slightly incorrect since under 18 year olds become citizens when their parents become citizens, I think. 15 why is “b” not disallowed? 16 is not really relevant to citizenship.

Demeter: #3 Change distractor A cueing from stem change distractor B. #4 Distractor Bi is throwaway. #6 Change distractor C and D. Make D more similar in structure to C. #9 Change distractor A. #10 Change one of the other distractors so one is similar to correct distractor C. #11 Change distractor B or C #12 Change distractor B. #12 Change distractor B into a compound phrase. #14 Shorten prompt. Make another distractor a compound phrase.

Poseidon: #10 can be improved if we change one of the distractors from suffrage or franchise to another choice.

Artemis: #14 is just too wordy and vague. #15 simply seems incorrect to me.

Once each panelist finished revising his or her questions based on peer feedback, a compiled list of questions per construct was presented to the panel for ranking (see Appendix D:

Delphi Panel Item Rankings and Averages). The top ten ranked questions per construct became an “item pool” of questions administered to college seniors at two midwestern universities before their student teaching semester. In four categories there were equal rankings resulting in an 11th item being included in the item pool for these constructs. Researchers used the data from 89 participants administered the item pool to complete the item analysis previously described.

Overall, the effectiveness of the Delphi technique for developing a valid and reliable instrument to measure key civic concepts is demonstrated through the results of the instrument itself. Table: 4.3 presents a summary of the item results for each construct. All concepts had ample item retention rates above 50 percent and five concepts were above 60 percent. Constitutionalism, Representative Democracy, and Market Economy had item retention rates above 70 percent.

Table 4.3: Success Rate of the Items Created by the Delphi Panel

CKI Civic Concept	# Items Created	Retained	Removed	% Success
I. Constitutionalism	10	7	3	.70
II. Representative Democracy	10	7	3	.70
III. Citizenship	10	5	5	.50
IV. Human Rights	11	6	5	.55
V. Civil Society	11	7	5	.55
VI. Market Economy	11	8	2	.72
VII. Examples of Non-Democracy	11	7	4	.63
Totals:	74	47	26	.62

As previously described, resulting data from the preliminary test given to 89 cooperating college seniors was analyzed by using measures of item difficulty, item discrimination and response distribution. This analysis resulted in the selection of 47 items for further study. A

holistic approach to removal was guided by a rubric categorizing questions into retain, remove, or revise based on data gathered (see Figure 3.1: Criteria for Evaluating CKI Item Performance). The results from the item analysis by construct are summarized below in Table: 4.4. At this time, no questions or responses were revised, as decisions had to be made to remove or retain each item in original form. Researchers used available data and professional judgment to categorize each question as “retained” or “deleted”.

Table 4.4: Civic Knowledge Inventory: Recommendations to Remove or Retain

I. Constitutionalism = 7

CKI Item #	Item Difficulty P-value	Item Discrimination P-value	Recommendation R=Retain V=Revise X=Remove
29	.55	.313	R
31	.78	.52	R
37	.49	.151	X
51	.74	.402	R
52	.67	.286	R
57	.49	.339	R
59	.47	.305	R
78	.62	.532	R
80	.30	.113	X
87	.42	.190	X

II. Representative Democracy = 7

Item #	Item Difficulty P-value	Item Discrimination P-value	Recommendation R=Retain V=Revise X=Remove
24	.91	-.16	X
27	.42	.490	R
30	.42	.52	R
34	.78	.341	R
44	.25	.316	R
56	.53	.345	R
77	.36	.224	R
82	.11	.94	X
90	.38	.262	R
95	.48	-.21	X

III. Citizenship = 5

Item #	Item Difficulty P-value	Item Discrimination P-value	Recommendation R=Retain V=Revise X=Remove
28	.18	-.195	X
32	.44	.26.8	R
53	.19	-.199	X
54	.54	.421	R
63	.57	.244	R
67	.23	.136	X
68	.40	-.02	X
85	.78	.45	R
91	.21	-.118	X
93	.40	.46.9	R

IV. Human Rights = 6

Item #	Item Difficulty P-value	Item Discrimination P-value	Recommendation R=Retain V=Revise X=Remove
35	.62	.398	R
38	.82	.302	R
39	.92	.517	R
48	.94	.65	X
55	.70	.586	R
58	.55	.201	X
60	.58	.262	R
64	.58	.277	R
70	.83	.161	X
84	.17	-.920	X
86	.28	.430	X

V. Civil Society = 7

CKI Item #	Item Difficulty P-value	Item Discrimination P-value	Recommendation: R=Retain V=Revise X=Remove
22	.10	.131	R
25	.20	.243	R
26	.39	.377	R
33	.32	.178	X
49	.21	.65	X
61	.50	.206	R
65	.54	.313	R
66	.61	.352	R
75	.37	.336	R
76	.23	-.23	X
88	.61	.498	R
92	.18	.97	X

VI. Market Economy = 8

Item #	Item Difficulty P-value	Item Discrimination P-value	Recommendation R=Retain V=Revise X=Remove
23	.43	.457	R
36	.78	.267	R
40	.72	.517	R
62	.82	.195	R*
69	.43	.524	R
71	.42	.455	R
73	.37	.182	X
74	.79	.376	R
83	.51	.313	R
89	.45	-.297	X

VII. Examples of Non-Democracy = 7

Item #	Item Difficulty P-value	Item Discrimination P-value	Recommendation R=Retain V=Revise X=Remover
41	.55	.317	X
42	.34	.100	X
43	.55	.198	X
45	.47	.459	R
46	.56	.355	R
47	.84	.341	R
50	.68	.36	R
72	.33	.293	X
79	.57	.313	R
81	.47	.416	R
94	.75	.376	R

Instrument Reliability

Using the data collected from the administration of the initial CKI, items were analyzed and removed based on the item analysis using standard performance measures for test items (see Figure 3.1: Criteria for Evaluating CKI Item Performance). Data summary charts allow for a summative analysis of all available data (see Table 4.7: CKI Reliability of Retained 47 Items by Major Construct). The decision to retain an item was the result of an item analysis including calculations of item difficulty, and item discrimination and response distribution patterns. Questions targeting a civic concept were analyzed and poor performing items aligned to measure each construct were removed.

This process allowed for the final test to be shortened. The reliability of the remaining items was determined using Cronbach's alpha. This was done by exporting an Excel file of CKI data to be analyzed with SPSS 11 software. The Cronbach's alpha reliability measure calculated from the remaining 47 test items was .812. The CKI measurement tool was determined to be a reliable measure of civic knowledge as defined by the Delphi panel.

After the item analysis was completed and the CKI was reduced to 47 items, the reliability of the instrument was determined. A consistent or reliable instrument should produce similar results if it were completed by the same students again. A perfectly consistent or reliable instrument would produce a perfect reliability of 1.0. Consequently, according to test construction standards the closer a score of 1.0 the more reliable or consistent a measurement tool is considered. According to instrument construction standards, however, an “acceptable” score would be .70 and a “good” score would be .80 or above (Garson, 2011, “Key Concepts and Terms” p.1). Cronbach’s alpha is one measure of internal consistency calculated with one data set. It demonstrates how sets of responses hang together. Using “Statistical Package for the Social Sciences (SPSS, 17) calculations using Cronbach’s alpha resulted in a “good” reliability score (.812) for the CKI. Other descriptive statistics computed on the 47 items retained from the preliminary testing data include a mean of 57 percent, a minimum score of 20 percent, and a maximum score of 92 percent. The range of the data collected was 72 percent as the difference between the minimum (.20) and maximum (.92) scores collected (see Table 4.5: Summary of Item Statistics).

Table 4.5: Summary of Item Statistics

	Mean	Minimum	Maximum	Range	N of Items
Item Means	.570	.202	.921	.719	47

Table 4.6: Summary of Full Scale Statistics

Mean	Variance	Std. Deviation	N of Items
26.7865	49.852	7.06057	47

The CKI reliability measures also were calculated for each civic construct. The results indicated that none of the individual constructs produced at an acceptable reliability level using

the Cronbach's alpha (see Table 4.7: CKI Reliability of Retained 47 Items by Major Construct). The reliability data calculated for items that belonged to individual constructs determine the reliability of the framework of the CKI. This lack of individual construct reliability may relate to the restricted range of the participants administered the items. Most students had limited access to the knowledge tested as they relied on high school civic courses at various locations. This lack of knowledge may have negatively affected individual construct reliability despite the effectiveness of the overall instrument. An area of future study would include categorizing results using the background information collected by the CKI. Meanwhile, this study demonstrates that there could be a scattered response pattern due to the impact of the large number of students NOT exposed to the information tested. This increases the chances of a low scoring student getting an item correct that was missed by a high performing student resulting in lower construct reliability measures. In addition, the low number of items per construct may have a negative impact on the results of each construct.

However, when the reliability of the 47 questions are calculated as a whole to measure the idea of "civics", with the seven constructs linked to this measure, a "good" reliability was determined (.812). This research study confirmed CKI reliability for the construct of "civic knowledge" as a whole, yet the data collected lacked evidence for reliability in measures for the major civic constructs identified. Further study is needed to explore this issue.

Table 4.7: CKI Reliability of Retained 47 Items by Major Construct

CKI Concept	Retained Items	Reliability
Constitutionalism	7	.526
Rep Democracy	7	.519
Citizenship	5	-.04
Human Right	6	.42
Civil Society	6	.365
Market Economy	8	.466
Example of Non-Democracy	7	.436

Frequency charts are included with the item analysis. The data collected is summarized for each item (See Appendix D:). Although, 47 questions make up the final CKI, several questions on the CKI are in need of further study and possible revision. Future studies involving larger groups of teachers will allow for additional item analysis, individual construct reliability and test revision. The item performance data for the selected 47 retained CKI items retained from the 74 administered are summarized in Appendix C (See Item Analysis of the 47 Retained Items). Decisions to remove or retain each item were based on all measures of item difficulty, discrimination, and response patterns.

In response to research question #2, these results of using the Delphi process led to a reliability measurement of the CKI of .812 as calculated by Cronbach's Alpha. Again, this internal measure of reliability was calculated using the CKI data of retained test items after poor performing items were deleted from responses from 89 senior enrolled in social studies methods were administered the test. These results demonstrated a reasonable level of reliability according to instrument construction standards, which recommend a score above .70. In fact, the CKI reached a “good” status of reliability (Garson, 2011, “Key Concepts and Terms” p.1). Limited success was demonstrated regarding reliability measures per civic construct. Further investigation of the lower construct reliability measures is needed.

Table: 4.5 CKI ITEM DIFFICULTY**I. Constitutionalism**

Item #	P-value
29	.55
31	.78
37	.49
51	.74
52	.67
57	.49
59	.47
78	.62
80	.30
87	.42

II. Representative Democracy

Item #	P-value
24	.91
27	.42
30	.42
34	.78
44	.25
56	.53
77	.36
82	.11
90	.38
95	.48

III. Citizenship

Item #	P-value
28	.18
32	.44
53	.19
54	.54
63	.57
67	.23
68	.40
85	.78
91	.21
93	.40

IV. Human Rights

Item #	P-value
35	.62
38	.82
39	.92
48	.94
55	.70
58	.55
60	.58
64	.58
70	.83
84	.17
86	.28

V. Civil Society

Item #	P-value
25	.20
26	.39
33	.32
49	.21
61	.50
65	.54
66	.61
75	.37
76	.23
88	.61
92	.18

VI. Market Economy

Item #	P-value
23	.43
36	.78
40	.72
62	.82
69	.43
71	.42
73	.37
74	.79
83	.51
89	.45

VII. Examples of Non-Democracy

Item #	P-value
41	.55
42	.34
43	.55
45	.47
46	.56
47	.84
50	.68
72	.33
79	.57
81	.47
94	.75

Five Pre-service Seniors: Interview Results

The researcher individually interviewed five volunteers as they read the CKI (2011) and responded to the following interview questions:

1. What is the question asking you? (Restate question if possible)
2. What does each response option mean?

Each student read the CKI questions aloud and responded to the interview questions.

Highlighters were used to mark unknown vocabulary. A rating of 0, 1, or 2 was marked on each question by the student as they read and ranked each question. Ratings of 2 were considered very clear, whereas a rating of 1 identified some issues and 0 would be given to items considered totally confusing. No participant gave an item a rating below a 1.

Several vocabulary words directly related to the concepts measured were considered unknown by all or most of the students interviewed. The researcher collated these responses into a frequency chart. In each case, the students said that if they better understood the word listed, the question would be clearer. Figure 4.4 highlights vocabulary issues that were challenging for elementary education seniors interviewed.

Figure 4.4: Findings from Five KSU/COE Senior Interviews

All Identified Concepts/vocabulary (5)

- *Popular sovereignty*
- *Habeas Corpus*
- *Eminent Domain*

Most identified concepts/vocabulary (3-4)

- *Civil liberties*
- *Theocracy*
- *Oligarchy*
- *Fascism*
- *Rule of law*
- *Suffrage*
- *Franchise*
- *Representative democracy*
- *Due process*

- *Command economy*

Few identified concepts/vocabulary (2)

- *Democratic socialism*
- *Civil society*
- *Freedom of conscience*
- *Free market economics*
- *Totalitarian government*
- *Market Economy*
- *Judicial restraint*

Individual concepts/vocabulary identified (1)

- *Common good*
- *Naturalized citizen*
- *Constitutional democracy*
- *Constituents*
- *Federalism*
- *Creationism*
- *Bayonet*
- *Militia*
- *Dissent*
- *Civil disobedience*
- *Civic identity*
- *Liberalism*
- *Civil liberties*
- *Civic virtues*
- *Freedom of association*
- *Globalized*
- *Monarchy*
- *Federal Republic of Germany*

Interviewed Pre-service Teachers' Responses

A few interview participants questioned clarity of prompts due to vocabulary. The students that struggled the most with vocabulary, also admitted they had little civic, formal or informal, experience beyond high school government courses. Students with little civic background struggled for meaning with questions 27, 29, 30, 34, 51, and 52. However, in each case, these questions revealed that vocabulary interfered with clarity. In each item, vocabulary was recognized as related to the concept being measured and part of academic vocabulary used in the study of civics and government. For example, Interview participant # 2 stated: "I am vague on some of these terms which interfered with my complete understanding of this question. I think if I knew the terms ...the question would probably be clearer to me." This senior also admitted she had not taken civic course since high school and self reported that she did not feel prepared in civics content.

An example that was unclear to several students was question #37. Students admitted they could not define the various forms of government.

37. An oligarchy, an aristocracy and a theocracy are all examples of
- A. rule by a few.
 - B. rule by one.
 - C. rule by many.
 - D. rule by all.

One student struggled to read vocabulary throughout the CKI. This student admitted that the CKI was not one she could pass, as her civic knowledge was admittedly very limited to a high school government course. Her career goal was early childhood and she did not see civic courses as a priority or even relevant to her career plan while in teacher training.

One civic construct identified as challenging to most was popular "sovereignty," defined in the National Civic Standards (1994) in the glossary as the "Ultimate, supreme power in a

state; in the United States, sovereignty rests with the people” (CCE, 1994, p. 293). Below are questions related to the idea of sovereignty that challenged a student interviewed while taking the CKI.

27. Representative democracy is based on the principle of
 - A. popular sovereignty.
 - B. rule of law.
 - C. equality of justice.
 - D. due process of law.
29. What do citizens of a constitutional democracy have in common?
 - A. civic identity
 - B. political party identity
 - C. equal political power
 - D. equal civic competence
30. Every four years citizens vote for their representatives in government. Which of the following statements from the Declaration of Independence best reflects this principle?
 - A. “among these [rights] are Life, Liberty, and the pursuit of Happiness
 - B. “all men are created equal”
 - C. “deriving their just powers from the consent of the governed [people]”
 - D. “they are endowed by their Creator with certain inalienable rights”
34. “I fear three newspapers more than a hundred bayonets.” Napoleon Bonaparte (c. 1800) This statement emphasizes the importance of
 - A. the right to bear arms.
 - B. freedom of expression.
 - C. judicial restraint.
 - D. civil disobedience.
51. The teaching of “creationism” in public schools has been restricted because
 - A. the majority of citizens don’t believe in it.
 - B. it is not based upon valid scientific evidence.
 - C. it attempts to “establish” religion in violation of the First Amendment.
 - D. it is too controversial.

Additionally, the vocabulary related such as *Habeas Corpus* (question #36) and *Eminent Domain* (question # 47) was identified as problematic for participants.

Two students commented that unfamiliar quotes required multiple readings, yet with effort they were understood. An example is question #57.

“Where everyman is...participator in the government of affairs, not merely at an election one day in the year but every day...he will let the heart be torn out of his body sooner than his power be wrested from him by a Caesar or a Bonaparte.”

--Thomas Jefferson (1816)

Jefferson’s main point here is that...

- A. Elections must be held regularly for democracy to function well.
- B. The active participation of citizens is necessary to avoid totalitarian rule.
- C. Citizens should be willing to sacrifice for their country.
- D. Individual liberty takes precedence over the common good.

Some question formats noted as challenging for several students. Three students commented on the phrase “Most necessary” stated in CKI Questions #52 as vague. They felt it was an awkward phrase and felt there might be a better way to say this.

52. Which of the following conditions are thought to be most necessary in a well functioning market economy?

- A. large number of producers and consumers freely entering and leaving markets
- B. government regulations protecting businesses and jobs
- C. government production of many essential goods and services
- D. no government interference in the economic activity

In addition, three students commented that item #44 was a question that was “too complicated” in its format. One student commented that response A might have a “hint” like the one given in response D of question #44. The second vocabulary word is written with the (Privacy) is added to the term “right to be left alone.” One suggestion made by interviewee #2 was to add a hint to response A such as student to be “volunteering.”

44. Human rights can be divided into political/public rights and personal/private rights. Which of the following is a political/public right?

- A. political participation beyond voting
- B. freedom of conscience
- C. private property rights
- D. right to be left alone (privacy)

Finally, several of the seniors commented on how they preferred shorter questions as they seemed more direct in asking the question and they required less processing and re-reading.

The evidence gathered and analyzed in this chapter provided adequate information to determine that the project was a success for both developing a civic construct and provided evidence to make decisions when building the final version a measurement tool. Researchers selected the best performing items available. Responses to items were analyzed for levels of difficulty, differentiation, response pattern distribution and overall performance including comments made during preliminary results of the college senior's interviews. To make a fair judgment for each response, a table was created for each question in Appendix C (See Appendix C: Item Analysis of the 47 Retained Items). Question removal or retention varied based on the item's performance as professional judgment was used to determine the retention or removal of individual items. For example, some easier items remained with low difficulty scores and low differentiation because they were easy for most. These questions might be placed at the beginning of the test to build confidence in the students at the start of the exam. Some highly difficult questions were retained with high performances on differentiation scores. Forty-seven items were selected from the preliminary study to be retained. The shortened test had a reliability score of .812. Interviews were conducted reviewing the retained items. An interview of five seniors gave insight into question interpretations and format.

Reviewing the Delphi protocol used as part of this research project produced several interesting results. Overall the project successfully completed Phase I of the project, related to the first research question, when the Delphi panel successfully completed a detailed list of seven civic constructs, sub-concepts and elements to be used as a construct map to guide instruction and assessment. Phase II of the project, related to the second research question, was completed as the Delphi panel created a valid and reliable instrument. The item analysis response pattern distribution, along with college senior interviews provide evidence that further revisions to

several questions are needed (see Table 4.2: CKI Results: Distractors with 5 or Less Responses (N = 89). Also, interviewers provided feedback to revise or clarify some content vocabulary (see Figure 4.4: Findings from Five KSU/COE Senior Interviews).

Therefore, overall the evidence presented in this chapter does support the findings that the Delphi panel of civic scholars met the criteria for success in producing an agreed upon civic concept map and a reliable and valid 47 item measure tool aligned to the seven identified civic concepts. A further discussion of this data and project strengths and weaknesses of the Delphi process when identifying key civic constructs and designing test questions to measure these concepts will be presented in Chapter 5.

CHAPTER 5: Summary and Conclusion

The Purpose of This Study

Faced with limited time and an overcrowded curriculum, teachers have to prioritize content as they design lessons. This has resulted in a de-emphasis on social studies standards in elementary schools. What limited time does get spent on social studies may suffer from limited content knowledge, as teacher preparation programs typically do not require civics or government courses, causing many elementary teachers to rely on their own potentially-limited high school civics coursework, civic concepts integrated into a history or economics courses, and their own personal civic experiences. The sum result has been a downward spiral of teaching civics and professional development related to standards for social studies including civic education in elementary schools and elementary teacher preparation programs. The fundamentals of government and community introduced in elementary curricula include complex civic concepts such as the “rule of law” and the foundations for understanding our country’s constitution as well as the exploration of other countries’ governments. Future teachers need to develop a foundational understanding of such concepts to be effective civic educators in elementary classrooms.

One way to make progress on preparation initiatives at teacher education institutions is to make certain that elementary teachers are fluent in essential civics content. Dr. Michael Anderson and Dr. Tom Vontz formally proposed a Delphi project, involving a team of civic educators, to identify important civic constructs and design a civic knowledge inventory to measure elementary teachers’ knowledge of these constructs. Sponsored by the Center for Civic

Education, a research team was formed and eight civic experts were invited to help answer two essential questions of the project: “How do we know when our pre-service elementary teachers are ready to teach civics at the elementary level? What do they need to know in order to teach civics?” This panel of civic experts was challenged to complete two phases of the Delphi Project as a team. *Phase I* of this project identified key concepts that teachers should know and understand to effectively teach civics and Phase II required the team to design a multiple-choice instrument to measure the identified civic knowledge constructs. This study investigated the levels of success of the Delphi project by answering two important research questions relating to *Phase I* and *Phase II* of the Delphi Project.

Research Questions

Two essential questions were posed:

Question 1: To what extent and in what ways is a modified Delphi technique useful in identifying the most important civic concepts elementary teachers should know to be effective civic educators?

Question 2: To what extent and in what ways is the Delphi method a useful tool in the development of a valid and reliable instrument to measure the identified key civics concepts?

Procedures

In *Phase I* of the Delphi project, eight civic experts were invited to work together to identify key civic concepts for elementary teachers through ten rounds of debate and deliberation. Each civic scholar anonymously contributed his or her list of important civic concepts via K-State on-line and then engaged in dialogue to change, refine, or defend their thoughts. Finally, the panel ranked each list and reached a consensus allowing for one list to be selected by the group. Zeus’s list was chosen as the highest ranked list and described seven civic

constructs. The seven salient constructs identified by this panel included; Constitutionalism, Representative Democracy, Citizenship, Human Rights, Civic Society, Market Economy, and Examples of Non-Democracy. These civic knowledge constructs and related sub-concepts, including supporting elements, were accepted as a curriculum map that could be used as a framework for curriculum, instruction, and assessment in civic education teacher preparation.

Phase II of the research plan focused on constructing an inventory to monitor teacher civic knowledge of the important civic constructs identified. The panel of civic experts combined their content knowledge with their experience of teaching and testing to design multiple-choice questions aligned to the adopted civic concept map. Before the multiple-choice test items were written, participants had to read “Test Writing Tips” found in Appendix B (see Tips for Writing Multiple Choice Questions) to ensure good test question formulation. Each panelist wrote two questions for each of the seven civic constructs. They analyzed and edited the total pool of questions through four rounds of discussion. Finally, test items were ranked and the top ten or eleven items for each civic construct were compiled into a 74-item pool. These questions were administered to 89 college seniors during their final semester before student teaching using an online format. This initial administration of the 74 test items was used to conduct an item analysis and reliability study that resulted in a 47 question Civic Knowledge Inventory (CKI) with documented validity and reliability. Item analysis and the reliability study provided evidence to demonstrating the effectiveness of the Delphi technique for identifying key civic constructs and designing a tool to measure those constructs.

Summary of Results: Assessing the Civic Knowledge Inventory

This study focused on the usefulness of the Delphi technique to identify key civic concepts elementary teachers should know and understand and to develop a valid and reliable

instrument to measure these identified key civic concepts. This study then described, both quantitatively and qualitatively, the results of the measurement tool created by the Delphi panel. The Delphi panel presented core civic concepts they collectively believed that all elementary teachers should know and understand to be effective civic educators. Panelists selected 74 items aligned to seven civic constructs. Data collected from administering these items to 89 pre-service seniors was analyzed for each item. Performance measures for each item included item discrimination, difficulty and response pattern distributions. The analyzed response pattern distribution resulted in many test item distractors, or wrong answers, being labeled as suspect and in need of future revision.

The performance of selected items is presented in Appendix C (see Appendix C). The p-value demonstrates the percentage of participants correctly responding to the test item. Decisions made based on item performance lead to the retention or removal of each of the panel's selected 74 items included in the preliminary study. After analysis of the 74 items, 27 items were removed and the remaining 47 items were included in the CKI. The success rate for items was 64%. The remaining 5-7 items per construct, considered an adequate measure of future teacher civic knowledge, represent the current CKI measurement tool.

Table 5.1 Success Rate of the CKI Items Created by the Delphi Panel

Civic Concept	Items Created	Items Retained	Items Removed	Success Rate
I. Constitutionalism	10	7	3	.70
II. Representative Democracy	10	7	3	.70
III. Citizenship	10	5	5	.60
IV. Human Rights	11	6	5	.45
V. Civil Society	11	7	4	.45
VI. Market Economy	10	8	2	.80
VII. Examples of Non-Democracy	11	7	4	.36
Totals:	73	47	26	.64

The final CKI reliability measure was .812 using Cronbach's alpha (SPSS). This is an acceptable reliability demonstrating the overall reliability of the CKI. Decisions to retain or remove each item were based on item performance. However, reliability calculated for each of the seven civic construct did not meet reliability standards. This may be due to the lack of civic preparation of participants administered the instrument. Five interviews with senior in elementary education were conducted using the final 47-item CKI to further assess the validity and clarity of the inventory. These interviews indicated that all of the five students interviewed struggled with three CKI terms and many struggled with several terms. These vocabulary issues need further attention in future studies.

The Delphi method via the Internet was the chosen research method for many reasons: convenience to participants, cost effectiveness, project management overtime, and the idea that using the Delphi technique for test construction would provide inherent construct validity for test construction. It was determined by the leadership team that the Delphi technique resulted in a valid and reliable instrument; although, additional revisions are still needed. There were both strengths and weaknesses in using the Delphi process for test construction. Three researchers, Anderson, Bietau, and Vontz, created a list of strengths from their experience in using a modified Delphi method online to construct a valid and reliable civic knowledge measurement tool. Figure 5.1 and Figure 5.2 presents the perceived strengths and limitations of using the Delphi method to construct a valid instrument.

Figure 5.1: Perceived Strengths when using the Delphi Method for Test Construction

- **Validity is inherent in the process:** The panel's list, developed by group opinion, guided the panel to collaboratively generate items to measure the targeted constructs. The idea that "two heads are better than one" underpins the Delphi method. If true, then eight experts provided an even better list of major civic constructs than any one expert.
- **Multiple feedback and revisions:** Given the team approach, items were revised through rounds of peer critique until eventually items were rated for selection.
- **Panel shared work load:** Shared responsibility of the massive work involved in developing an instrument allows for experts with other major commitments to participate in a collaborative process to build a measurement tool over many months time.
- **Interdependence of panelists built into the process:** Each round of the Delphi project was not complete until each panelist's response was received. Reminders were sent to late responses reminding them that the group was waiting. There were a few minor delays, yet the overall impact of the project pressure and support resulted in 100% completion of each round and 100% retention of panelists for all 14 steps of the research project.
- **The anonymity of the process offered equal voice to all participants:** All participants were qualified to be on the panel. Some scholars had longer and more prestigious careers than others. This protocol allowed all scholars to have equal voice and authority to influence the project outcome.
- **Individual responsibility and accountability:** All participants were held accountable for their contributions. The publishing of each scholar's work allowed them to build an identity through the project based on the performance and production of their work on this project alone.
- **Panelists maintained civility in their responses throughout the process:** Dialogue was critical, yet supportive and professional at all times. Participants demonstrated clear and concise communication and civil discourse.
- **Collective work reflected individual ideas combined:** The final construct list represents several panelist ideas. All members contributed items for the instrument designed to measure these constructs.

- **CKI as a valid and reliable instrument:** As the CKI is revised in the future; it can inform educators about levels of civic knowledge for elementary teachers on identified constructs.

Figure 5.2: Perceived Limitations for using the Delphi Method in Test Construction

- **Panel test writing experience and expertise varied:** Panel members had varied experiences with writing test items. The review of how to write a multiple-choice question was brief. Panelists never had to demonstrate proficiency in item writing as a condition to participating in the Delphi project.
- **Complexity of civic concepts measured:** The number of concepts had many related civic knowledge construct to measure making adequate and equitable sampling of all concepts a challenge for a test of approximately 50 questions.
- **Panelists not presented item analysis of their work:** The Delphi panelists were not presented the results of preliminary testing and item analysis for further discussion and dialogue. Additional collaborative phases could have been added once the preliminary data was organized to allow panelists to revise their work one more time after viewing the preliminary data. For example, special attention to response pattern distribution would offer panelists a chance to revise the stems and/or choice for the items they created to seek a more even distribution among choices.
- **Civic experts use civic vocabulary inaccessible to non-experts:** Civic experts collectively chose to include content specific vocabulary deemed essential to the civic concepts outlined by the group. This language confused students interviewed with limited civics background and should be considered in future studies.
- **Novice facilitator lacked civic expertise:** Since the facilitation lacked civic expertise, she acquiesced to two civic experts on the research team for guidance. The process was transparent for the Center for Civic Education project contact who observed the project and reported progress to the sponsors.
- **Elementary educator input missing:** The fact that no elementary or middle school social studies teacher participated on the Delphi panel may have had impact on project outcomes. Although the facilitator was an elementary teacher, her role did not provide input into the dialogue. A practitioner's perspective may have been beneficial to project outcomes and triangulated perspectives of the panel. The discussion online may have

been expanded with the inclusion of an elementary teacher with civic preparation.

- **Technology challenges:** The use of technology was challenging for some Delphi panelists. “Face to face” demonstrations with the research team may have helped to ease the stress of navigating an online format.
- **A review of the CKI by outside expert:** Civic education experts working with elementary teachers not on the Delphi panel could have ensured the applicability of the CKI for elementary teachers.
- **Reflective feedback of panelists:** A survey of expert opinion on participation in the Delphi project would inform this project and others striving to use the Delphi method for test construction.

The data presented in this research study provides compelling evidence that the Delphi technique was an effective process for identifying important civic concepts. Additionally, the Delphi panel’s list of civic constructs was highly accepted when presented at two national conferences with social science educators. This added validation to the project outcome beyond the construct validity inherent in using a panel of civic experts on the panel.

The item analysis and interview data collected in this study demonstrates limited evidence that the Delphi technique was an effective process for developing a valid and reliable instrument to measure key civic concepts. Again, construct validity was inherent in the Delphi process and reinforced through item analysis. The reliability coefficient for the CKI was .812, which meets the acceptable standard for reliability. When items were tested for reliability within individual constructs, the measures were below the acceptable range (see Table 4.1: Civic Knowledge Inventory: Recommended Revisions). In addition, interview results and the analysis of the response pattern distribution of question distractors indicated additional revisions are needed to address vocabulary issues and enhance the performance of the item distractors.

Conclusions

The data analyzed in this study demonstrated the use of the Delphi method provides a useful tool to construct a valid and reliable test. This project identifies several positive outcomes when using the Delphi method to identify and measure key civic concepts. Some of the recognized overall project strengths and challenges are noted to guide future exploration of using the Delphi method in test construction:

1. The test demonstrated that it did discriminate civic knowledge. Some pre-service students were able to demonstrate higher knowledge of civic concepts than others on this measure. The interview results confirmed that college seniors preparing to be elementary teachers that had successfully completed civic coursework in high school or college were able to read and respond with confidence, while those with little formal civic background struggled with civic content vocabulary (see Figure 4.4: Findings from Five KSU/COE Senior Interviews).
2. Using a team approach to construct the item pools provided the opportunity to efficiently create and peer review a large pool of items and benefit from rounds of feedback and revision.
3. Using the Delphi method allowed for efficient selection of items from the item pool by allowing panelists to rank questions targeting all seven civic constructs.
4. Participant seniors were administered the item pool which allowed for an item analysis of the Civic Knowledge Inventory items created by the Delphi Panel.
5. An item analysis provided a systematic review of test questions to determine best performing questions based on item difficulty, item discrimination, and distractor distribution patterns.
6. A valid and reliable Civic Knowledge Inventory is now available for further revision and study.

The answer to both research questions was clear with the evidence of usable project outcomes presented in Chapters 4 and 5. The evidence analyzed in this study demonstrates one example of how a Delphi method can be used to identify a list of civic concepts that elementary teachers need to build a foundation in civic education. The panel was able to design a valid and reliable measure of this knowledge. The modified Delphi method provided validity by involving

experts throughout the test construction process. Rounds of feedback and deliberation over an academic year provided the opportunity for civic scholars to create, refine, share, and discuss civic education concepts until consensus was reached. A Cronbach's alpha reliability score of .812 on selected items created by the panel demonstrated that the Delphi method indeed could be used to successfully construct a reliable measurement tool. However, this research study also identifies issues with the poor reliability of items within each civic construct category as an area for further investigation.

In conclusion, this project successfully used the Delphi method to produce a valid civic concept map and create a valid and reliable tool to provide a "snap shot" of elementary teachers' civic knowledge. Results from preliminary testing indicated that the Delphi method applied to a test construction had limited success. The selected Delphi civic expert panel was able to produce a list of essential civic constructs. Additionally, the panel was able to outline related sub concepts and elements for all seven identified constructs. The same Delphi technique was successful as a technique for creating items for an instrument to measure civic knowledge. The analysis of preliminary test results demonstrated a 64% success rate (retention) of panel created test items. Interview results concurred with these findings demonstrating discrimination of accurate responses between those who had civic background and students who had inadequate civic preparation. The CKI was considered challenging for those unfamiliar with content related vocabulary. The Delphi panel accepted that the content specific language was necessary to understanding the civic concepts being measured, although vocabulary issues should be considered in future studies.

The predicted impact of this study may include supporting professional development needs of elementary teachers. The applications of this measurement tool may include personal

feedback to elementary teachers or possibly self-evaluation audits of teacher education programs. The CKI might be used as a guide for initiatives aimed at the development of civic knowledge of future teachers. Preparing future teachers to be both confident and competent civic educators helps to provide a strong and equitable civic foundation for future citizens. This study can guide efforts to reach higher standards of practice in elementary classrooms dedicated to the civic mission of public schools.

Researchers consider the Delphi project an overall success in creating a list of major civic constructs and creating a valid and reliable instrument that informs educators of civic knowledge of elementary teachers based on measuring major civic constructs. Additionally, there were many strengths and limitations perceived by the researchers to have an impact on instrument construction (see Figure 5.1: Perceived Strengths when using the Delphi Method for Test Construction and Figure 5.2: Perceived Limitations for using the Delphi Method in Test Construction).

Recommendations for Further Research

This study investigated the use of the Delphi method to identify important civic constructs and create a measurement tool aligned to these core civic constructs. This study demonstrated success in creating a list of key constructs through the Delphi process. Limited success was related to using the Delphi process to design a valid and reliable instrument to measure these key concepts. A reliability analysis of the CKI produced an acceptable rating of .812, however, the reliability scores calculated for items within each construct were well below the recommended .70 level. In addition, item analysis and interviews with students revealed issues with vocabulary and item distractor distributions. The participants of this study, including civic experts, were pre-service teachers with varied levels of civic training. The undergraduates

administered the item pool may or may not have had prior experiences with the civic constructs measured. This may have contributed to the lower reliability scores of items within each of the seven major constructs.

Based on these circumstances and inherent limitations, the following suggestions for further research are provided:

1. **Continued Item Analysis:** Future studies should expand this work by continuing to revise and improve the items included in this measurement tool. Special attention to vocabulary, response distribution patterns and low performing distractors is recommended.
2. **Further investigation of instrument reliability:** This instrument should be administered to teachers with less varied background in civics to accurately assess the reliability of items within each of the seven constructs.
3. **Use a Delphi method to design measures of civic concepts, skills and dispositions:** The addition of open-ended questions aimed at the targeted civic concepts would provide deeper insight into higher-level teacher knowledge and understanding. In addition, a complete study of elementary teachers' civic virtue could build on this study by designing ways to monitor progress in the areas of civic skills and dispositions.
4. **External review of civic concepts and the CKI:** Expert review is needed outside the Delphi panel. Future study of the CKI should include a review by civic experts not involved in the project. It is suggested reviews include secondary and elementary social studies methods experts from the College of Education. Using questions outlined by Popham's insight to the practical application and

utility can be qualitatively addressed (Popham, 2005). Expert Review of the inventory could be completed using the following rating scale:

Figure 5.3: Instrument Rating Scale: 5 = high, 3 = moderate, 1 = low

- **Adherence to item-specific guidelines / general item writing commandments:** Do the questions follow the intended guideline provided during item construction?
- **Contributions to score-based inference:** Does the test sample the intended seven constructs?
- **Content accuracy:** Are the questions and response choices accurate?
- **Absence of content lacunae (gaps in content knowledge):** Do the questions adequately measure all seven concepts?
- **Fairness:** Do the questions sample knowledge and understanding in a way that is equitable?

A recommended follow-up study utilizing the CKI and in-service elementary teachers taught the major constructs identified by the Delphi panel would advance this research. Additionally, the continued progress of this test, including future revisions and performance results, will continue to inform researchers of the lasting impact of the CKI as a measurement tool created through a Delphi process. Finally, the future use and performance of the CKI may lead to a second panel of educational test construction experts to further revise the test items to better measure the list of important civic constructs that all elementary teachers should know to be effective educators.

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Appendix A:

Invitation to Panelists



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Dear Colleague,

Kansas State University and Clarke College are delighted to invite you to participate as an expert panelist on an important research project. Eight participants will collaborate to identify important concepts in elementary education and write items to measure them. We seek your expertise in developing a reliable and valid instrument to measure elementary teachers' understanding of important civic concepts. You have been recommended as a leading civic education scholar. Each panelist collaborates with colleagues to:

- identify the most important civic knowledge concepts that elementary teachers need to understand to be effective civic educators; and,
- create test items (approximately 20 per panelist) that provide valid and reliable measures of civic knowledge concepts identified by our panel.

We have chosen the Delphi method to accomplish these goals. The Delphi method is a structured process for group communication and consensus. It is founded on the idea that "two heads are better than one." As one panelist of a group of eight, you will be given the opportunity to individually and collaboratively apply your expertise to our project goals, which enhances the validity of our study and the instrument that will be produced as a result.

To accomplish this "structured communication" panelists will provide individual feedback as an independent contribution of information and then respond to the collaborative ideas of the panel. The basic steps for "structured communication" and expert consensus are attached. You will both contribute original ideas and critique the ideas of others.

The research design calls for anonymity of the individual panelists. Panelists will be given pseudonyms to anonymously submit information via an on-line communication tool called "Kansas State On-line"(KSOL). When using this technology each panelist can have access to this project from anywhere in the world connected to the Internet. Simple directions as well as support for using this technology will be provided. Clear directions will be provided for each step and panelists will receive email reminders about the study. It will be important for all panelists to complete each step in a timely manner. If you choose to accept our invitation **you will receive a \$1,000.00 honorarium for your timely completion of all steps.** We have attached a chart outlining panelist responsibilities.

Civic education provides a range of professional opportunities; however, we believe this project has potential to greatly improve the teaching and learning in civic education K-18 by providing valid and reliable data measuring teacher knowledge. The data obtained from this instrument will inform teachers, schools, and universities of the strengths and needs of elementary teacher's civic knowledge and guide future initiatives to support civic

education in schools and teacher preparation institutions. **Please indicate your interest by replying to this invitation via email to Dr. Tom Vontz (tvontz@ksu.edu).** When participation is confirmed, further directions will be provided. We look forward to hearing from you by **March 6th**.

Sincerely,

Dr. Tom Vontz, Assistant Professor
Dept. of Elementary Education,
Kansas State University

Dr. Michael Anderson, Chair & Professor,
Department of Education,
Clarke College

Lisa Bietau, Teacher in Residence,
Kansas State University,
DOE Equity and Access Grant

Appendix B:

Tips for Writing Multiple Choice Questions

Please consider the following excerpts from various essays regarding instrument item construction. While we recognize and respect the experience and expertise of our Delphi participants, we thought it might be useful to provide a limited review of test item writing and provide some common language. We hope you find the short review helpful.

Cognitive Levels for Item Writers to Consider

Bloom's taxonomy of teaching objectives (Bloom, 1956) is often presented to item writers to stimulate their thinking about testing at different levels of difficulty, ranging from basic recall to synthesis and critical evaluation. Typically, item writers consider the most important concepts tested and consider what percentage of questions ought to be at each level.

Table 1: Examples of Bloom's (1956) Cognitive Levels

Bloom's Cognitive Level	Student Activity	Words to Use in Item Stems
Knowledge	Remembering facts, terms, concepts, definitions, principles	Define, list, state, identify, label, name, who? when? where? what?
Comprehension	Explaining/interpreting the meaning of material	Explain, predict, interpret, infer, summarize, convert, translate, give example, account for, paraphrase
Application	Using a concept or principle to solve a problem	Apply, solve, show, make use of, modify, demonstrate, compute
Analysis	Breaking material down into its component parts to see inter relationships/hierarchy of ideas	Differentiate, compare/contrast, distinguish ____ from ____, now does ____, relate ____?, why does ____ work?
Synthesis	Producing something new or original from component parts	Design, construct, develop, formulate, imagine, create,

		change, write a poem or short story
Evaluation	Making a judgment based on a pre-established set of criteria	Appraise, evaluate, justify, judge, critique, recommend, which would be better?

Question Format

A review of the literature suggests that the strongest format is one where the multiple-choice items are prepared as direct questions. This is in contrast to incomplete statements, or clusters of answers such as “a and b”, “b and c”, etc. Lucy Jacobs (IU) offers some suggestions for writing multiple-choice items that measure the higher thinking skills. Not all of these will be applicable for concepts such as the social contract, constitutionalism, or rights, but they may stimulate your thinking:

- Present practical or real-world situations to the students. These problems may use short paragraphs describing a problem in a practical situation. Items can be written which call for the application of principles to the solution of these practical problems, or the evaluation of several alternative procedures.
- Present the student with a diagram of equipment and ask for application, analysis, or evaluations, e.g., "What happens at point A if “?”" or "How is A related to B?"
- Present actual quotations taken from newspapers or other published sources or contrived quotations that could have come from such sources. Ask for the interpretation or evaluation of these quotations.
- Use pictorial materials that require students to apply principles and concepts.
- Use charts, tables or figures that require interpretation.

MULTIPLE-CHOICE ITEM-WRITING CHECKLIST

Do make sure that :

CONTENT

The item assesses **important** knowledge or skills

The question (or stem) presents a clearly formulated problem or question.

There is only one right answer.

The “distractors” should be plausible and free of clues that might help students easily eliminate one or more of the incorrect choices.

The wording of the item clearly conveys the intent of the item, not present obstacles to the students’ ability to demonstrate what they know.

LANGUAGE

Use simple, basic vocabulary.

Make sure sentence structure in the item is simple-- avoid passive voice.

The item should include only the information needed to answer the question or complete the task.

Avoid idiomatic language and terms.

STRUCTURE

The answer choices should be as brief and simple as possible.

Always state items and questions in positive terms. Avoid using “negatives” in both the item stem and answer choices.

All answer choices must be approximately the same in length.

All answer choices should be similar in complexity and detail. (Avoid making the correct answer overly attractive.)

Make sure all answer choices are grammatically parallel

Verify all answer choices are grammatically consistent with the stem of the item.

Never use “all of the above” and “none of the above” as answer choices.

BIAS/SENSITIVITY ISSUES

The item should provide all students with a fair opportunity to demonstrate what they know, regardless of their race, ethnicity, gender, religion, disability, socioeconomic status, or the region in which they live.

The subject, issue, or theme addressed by the item should not demean or offend.

How to Improve a Multiple Choice Item

Original	Improved
<p>Freedom of speech does not protect a person who</p> <ul style="list-style-type: none"> A. criticizes the mayor in a public meeting. B. slanders another person publicly. C. wishes to speak against the government. D. demonstrates against tax increases. 	<p>Freedom of speech protects all of the following EXCEPT</p> <ul style="list-style-type: none"> A. criticizing the mayor in a public meeting. B. slandering another person publicly. C. wishing to speak against the government. D. demonstrating against tax increases.
<p>Which one of the following states is not located north of the Mason-Dixon line?</p> <ul style="list-style-type: none"> A. Maine B. New York C. Pennsylvania D. Virginia 	<p>Which one of the following states is located south of the Mason-Dixon line?</p> <ul style="list-style-type: none"> A. Maine B. New York C. Pennsylvania D. Virginia
<p>Which is not a safe driving practice on icy roads?</p> <ul style="list-style-type: none"> A. accelerating slowly B. jammed on the brakes C. hold the wheel firmly D. slowly decelerating 	<p>All of the following are safe driving practices on icy roads EXCEPT</p> <ul style="list-style-type: none"> A. accelerating slowly B. jamming on the brakes C. holding the wheel firmly D. slowing down gradually
<p>What is the major purpose of the United Nations?</p> <ul style="list-style-type: none"> A. to maintain peace among the peoples of the world B. to establish international law C. to provide military control D. to form new governments 	<p>What is the major purpose of the United Nations?</p> <ul style="list-style-type: none"> A. to maintain peace among the peoples of the world B. to develop a new system of international law C. to provide military control of nations that have recently attained their independence D. to establish and maintain democratic forms of government in newly formed nations

Writing Stems

We will first describe some basic rules for the construction of multiple-choice stems, because they are typically, though not necessarily, written before the options.

1. Before writing the stem, identify the one point to be tested by that item. In general, the stem should not pose more than one problem, although the solution to that problem may require more than one step.

2. Construct the stem to be either an incomplete statement or a direct question, avoiding stereotyped phraseology, as rote responses are usually based on verbal stereotypes.

For example, the following stems (with answers in parentheses) illustrate undesirable phraseology:

What is the biological theory of recapitulation? (Ontogeny repeats phylogeny)

Who was the chief spokesman for the "American System?" (Henry Clay)

Correctly answering these questions likely depends less on understanding than on recognizing familiar phraseology.

3. Avoid including nonfunctional words that do not contribute to the basis for choosing among the options. Often an introductory statement is included to enhance the appropriateness or significance of an item but does not affect the meaning of the problem in the item. Generally, such superfluous phrases should be excluded.

For example, consider:

The American flag has three colors. One of them is (1) red (2) green (3) black

Versus

One of the colors of the American flag is (1) red (2) green (3) black

In particular, irrelevant material should not be used to make the answer less obvious. This tends to place too much importance on reading comprehension as a determiner of the correct option.

4. Include as much information in the stem and as little in the options as possible.

For example, if the point of an item were to associate a term with its definition, the preferred format would be to present the definition in the stem and several terms as options rather than to present the term in the stem and several definitions as options.

5. Restrict the use of negatives in the stem. Negatives in the stem usually require that the answer be a false statement. Because students are likely in the habit of searching for true statements, this may introduce an unwanted bias.

6. Avoid irrelevant clues to the correct option. Grammatical construction, for example, may lead students to reject options, which are grammatically incorrect as the stem is stated. Perhaps more common and subtle, though, is the problem of common elements in the stem and in the answer.

Consider the following item:

What led to the formation of the States' Rights Party?

- a. The level of federal taxation*
- b. The demand of states for the right to make their own laws*
- c. The industrialization of the South*
- d. The corruption of federal legislators on the issue of state taxation*

One does not need to know U.S. history in order to be attracted to the answer, b.

Other rules that we might list are generally commonsensical, including recommendations for independent and important items and prohibitions against complex, imprecise wording.

Writing Options

Following the construction of the item stem, the likely more difficult task of generating options presents itself. The rules we list below are not likely to simplify this task as much as they are intended to guide our creative efforts.

1. Be satisfied with three or four well-constructed options. Generally, the minimal improvement to the item due to that hard-to-come-by fifth option is not worth the effort to construct it. Indeed, all else the same, a test of 10 items each with four options is likely a better test than a test with nine items of five options each.

2. Construct distractors that are comparable in length, complexity and grammatical form to the answer, avoiding the use of such words as "always," "never," and "all." Adherence to this rule avoids some of the more common sources of biased cueing. For example, we sometimes find ourselves increasing the length and specificity of the answer (relative to distractors) in order to insure its truthfulness. This, however, becomes an easy-to-spot clue for the test-wise student. Related to this issue is the question of whether or not test writers should take advantage of these types of cues to construct more tempting distractors. Surely not! The number of students choosing a distractor should depend only on deficits in the content area which the item targets and should not depend on cue biases or reading comprehension differences in "favor" of the distractor.

3. Options which read "none of the above," "both a. and e. above," "all of the above," "etc", should be avoided when the students have been instructed to choose "the best answer," which implies that the options vary in degree of correctness. On the other hand, "none of the above" is acceptable if the question is factual and is probably desirable if computation yields the answer. "All of the above" is never desirable, as one recognized distractor eliminates it and two recognized answers identify it.

4. After the options are written, vary the location of the answer on as random a basis as possible. A convenient method is to flip two (or three) coins at a time where each possible Head-Tail combination is associated with a particular location for the answer. Furthermore, if the test writer is conscientious enough to randomize the answer locations, students should be informed that the locations are randomized. (Test-wise students know that for some instructors the first option is rarely the answer.)

Excerpted (with permission) from an essay by: *Jerard Kehoe*, Virginia Polytechnic Institute and State University.

Resources:

<http://testing.byu.edu/info/handbooks/betteritems.pdf>

<http://testing.byu.edu/info/handbooks/betteritems.pdf>

http://web.utk.edu/~mccay/apdm/mchoice/mc_b.htm

Appendix C:

Item Analysis of the 47 Retained Items

Q23: When the private activities of individuals have the potential to create harm to others economists often call for government to step in with legislation or regulation. All but one of the following examples might call for a measure of government regulation. Which is the exception?		
	Frequency	Percent
A.) A B C Pharmaceutical Corporation develops a new drug to combat arthritis.	14	15.7
B.) A company wishes to purchase land next to a residential neighborhood to expand its parking lot.	18	20.2
C.) An individual wishes to start private practice as a medical doctor	19	21.3
D.) A company chooses to relocate to a larger facility.	38	42.7
Total	89	100.0
Item #23	Item Difficulty P-value = .43	Item Discrimination P-value = .457

Q25: Commentators such as Alexis De Tocqueville in the 1830s and more recently Robert Putnam have written about the importance of a civil society in maintaining the American Republic. Which of the following activities best exemplifies involvement in civil		
	Frequency	Percent
A.) Voting in primary and general elections	61	68.5
B.) Participating in PTA and Lions Club	18	20.2
C.) Serving in the military	3	3.4
D.) Representing a district in Congress	7	7.9
Total	89	100.0
Item # 25	Item Difficulty P-value = .20	Item Discrimination P-value = .243

Q26: The civil society of a constitutional democracy exemplifies		
	Frequency	Percent
A.) <i>civil engagement.</i>	35	39.3
B.) civil authority.	13	14.6
C.) civil law.	26	29.2
D.) civic identity.	15	16.9
Total	89	100.0
Item # 26	Item Difficulty P-value = .39	Item Discrimination P-value = .377

Q27: In a representative democracy citizens have the right to which of the following:		
	Frequency	Percent
A.) <i>Free, fair, and regularly scheduled elections</i>	38	42.7
B.) Economic justice	6	6.7
C.) Public education	8	9.0
D.) All forms of personal expression	37	41.6
Total	89	100.0
Item #27	Item Difficulty P-value = .42	Item Discrimination P-value = .490

Q28: All of the following are rights reserved exclusively to citizens EXCEPT:		
	Frequency	Percent
A.) Suffrage	32	36.0
B.) Franchise	33	37.1
C.) Membership in a political party	16	18.0
D.) Jury service	8	9.0
Total	89	100.0
Item # 28	Item Difficulty P-value = .18	Item Discrimination P-value = .195

Q29: Due process is based on the principle that		
	Frequency	Percent
A.) government officials must follow the law.	49	55.1
B.) police officers must have the power to enforce the law.	15	16.9
C.) citizens' rights are more important than the common good.	20	22.5
D.) criminal justice must be financially responsible.	4	4.5
Total	88	98.9
Missing System	1	1.1
Total	89	100.0
Item #29	Item Difficulty P-value = .55	Item Discrimination P-value = .313

Q30: Representative democracy is based on the principle of		
	Frequency	Percent
A.) popular sovereignty.	38	42.7
B.) rule of law.	6	6.7
C.) equality of justice.	27	30.3
D.) allow for greater economic equity.	18	20.2
Total	89	100.0
Item #30	Item Difficulty P-value = .42	Item Discrimination P-value = .52

Q31: The founding fathers believed the separation of powers was important to		
	Frequency	Percent
Valid A.) <i>prevent the abuse of power.</i>	69	77.5
B.) make the government more responsible.	11	12.4
C.) provide for greater voting rights	1	1.1
D.) allow for greater economic equity.	8	9.0
Total	89	100.0
Item # 31	Item Difficulty P-value = .78	Item Discrimination P-value = .52

Q32: What do citizens of a constitutional democracy have in common?		
	Frequency	Percent
Valid A.) <i>Civic identity</i>	39	43.8
B.) Political party identity	4	4.5
C.) Equal political power	38	42.7
D.) Equal civic competence	8	9.0
Total	89	100.0
Item # 32	Item Difficulty P-value = .44	Item Discrimination P-value = .268

Q34: Every four years citizens vote for their representatives in government. Which of the following statements from the Declaration of Independence best reflects this principle?		
	Frequency	Percent
Valid A.) among these [rights] are Life, Liberty, and the pursuit of Happiness	6	6.7
B.) all men are created equal	9	10.1
C.) <i>deriving their just powers from the consent of the governed [people]</i>	70	78.7
D.) they are endowed by their Creator with certain inalienable rights	4	4.5
Total	89	100.0
Item #34	Item Difficulty P-value = .78	Item Discrimination P-value = .341

Q35: Which form of dissent pioneered by Gandhi in India has also been used in the U.S. and other countries to protest injustice?		
	Frequency	Percent
A.) Obtaining foreign aid	3	3.4
B.) Violent revolution	6	6.7
C.) Civil action	24	27.0
D.) Nonviolent civil disobedience	55	61.8
Total	88	98.9
Missing System	1	1.1
Total	89	100.0
Item #35	Item Difficulty P-value = .62	Item Discrimination P-value = .398

Q36: An essential characteristic of a market economy is		
	Frequency	Percent
A.) the right of individuals to make economic choices.	69	77.5
B.) government control of the market.	5	5.6
C.) equal distribution of economic capital.	13	14.6
D.) the right of individuals to become wealthy through the s	2	2.2
Total	89	100.0
Item # 36	Item Difficulty P-value = .78	Item Discrimination P-value = .267

Q38: The term 'tyranny' refers to a		
	Frequency	Percent
A.) strong central government.	4	4.5
B.) powerful monarchy.	10	11.2
C.) <i>government that abuses its powers.</i>	73	82.0
D.) government controlled by terrorists.	2	2.2
Total	89	100.0
Item #38	Item Difficulty P-value = .82	Item Discrimination P-value = .302

Q39: 'I fear three newspapers more than a hundred bayonets.' - Napoleon Bonaparte (c. 1800) This statement emphasizes the importance of		
	Frequency	Percent
A.) the right to bear arms.	1	1.1
B.) <i>freedom of expression.</i>	82	92.1
C.) judicial restraint.	3	3.4
D.) civil disobedience.	3	3.4
Total	89	100.0
Item # 39	Item Difficulty P-value = .92	Item Discrimination P-value = .517

Q40: Freedom of exchange, protection of private property, and freedom of individual economic opportunity are all essential components of		
	Frequency	Percent
A.) a command economy.	1	1.1
B.) a traditional economy.	17	19.1
C.) <i>a market economy.</i>	64	71.9
D.) a globalized economy.	7	7.9
Total	89	100.0
Item #40	Item Difficulty P-value = .72	Item Discrimination P-value = .517

Q44: 'As citizens of this democracy, you are the rulers and the ruled, the lawgivers and the law-abiding, and the beginning and the end.' - Adlai Stevenson (c. 1956) This statement addresses the principle of		
	Frequency	Percent
A.) equal protection	19	21.3
B.) Habeas corpus	10	11.2
C.) <i>Popular sovereignty</i>	22	24.7
D.) Civil rights	37	41.6
Total	88	98.9
Missing System	1	1.1
Total	89	100.0
Item #44	Item Difficulty P-value = .25	Item Discrimination P-value = .316

Q45: An oligarchy, an aristocracy and a theocracy are all examples of		
	Frequency	Percent
A.) <i>rule by a few.</i>	42	47.2
B.) rule by one.	27	30.3
C.) rule by many.	15	16.9
D.) rule by all.	5	5.6
Total	89	100.0
Item # 45	Item Difficulty P-value = .47	Item Discrimination P-value = .459

Q46: All of the countries in the following list are examples of a constitutional democracy EXCEPT:		
	Frequency	Percent
A.) <i>Islamic Republic of Iran</i>	50	56.2
B.) United Kingdom of Great Britain	15	16.9
C.) Federal Republic of Germany	4	4.5
D.) The Czech Republic	20	22.5
Total	89	100.0
Item # 46	Item Difficulty P-value = .56	Item Discrimination P-value = .355

Q47: Which of the following forms of government is most restrictive?		
	Frequency	Percent
A.) Monarchy	12	13.5
B.) Federalism	2	2.2
C.) Dictatorship	75	84.3
D.		
Total	89	100.0
Item # 47	Item Difficulty P value = .84	Item Discrimination P-value = .341

Q50: A form of government ruled by one authoritarian party that centralizes economic planning and eliminates the private ownership of property is called		
	Frequency	Percent
A.) communism.	61	68.5
B.) socialism.	13	14.6
C.) fascism.	11	12.4
D.) constitutional monarchy.	4	4.5
Total	89	100.0
Item # 50	Item Difficulty P-value = .68	Item Discrimination P-value = .36

Q51: Which of the following provisions of the U.S. Constitution is also a major characteristic of the rule of law?		
	Frequency	Percent
A.) Freedom of speech	14	15.7
B.) Freedom of religion	4	4.5
C.) A well regulated militia	5	5.6
D.) Equal protection under the law	66	74.2
Total	89	100.0
Item # 51	Item Difficulty P-value = .74	Item Discrimination P-value = .402

Q52: If a police officer in the U.S. makes an arrest and does not inform the suspect of his or her rights, which constitutional principle is the police officer violating?		
	Frequency	Percent
A.) Eminent domain	11	12.4
B.) Equal protection	9	10.1
C.) Due process	60	67.4
D.) Unreasonable search	9	10.1
Total	89	100.0
Item # 52	Item Difficulty P-value = .67	Item Discrimination P-value = .286

Q54: You exercise a right reserved to citizens every time you		
	Frequency	Percent
A.) speak your mind.	25	28.1
B.) get a fair trial.	8	9.0
C.) receive equal protection of the laws.	8	9.0
D.) vote in public elections.	48	53.9
Total	89	100.0
Item # 54	Item Difficulty P-value = .54	Item Discrimination P-value = .421

Q55: Human rights can be divided into political/public rights and personal/private rights. Which of the following is a political/public right?		
	Frequency	Percent
A.) Political participation beyond voting	62	69.7
B.) Freedom of conscience	8	9.0
C.) Private property rights	15	16.9
D.) Right to be left alone (privacy)	4	4.5
Total	89	100.0
Item # 55	Item Difficulty	Item Discrimination

Q55: Human rights can be divided into political/public rights and personal/private rights. Which of the following is a political/public right?		
	Frequency	Percent
A.) Political participation beyond voting	62	69.7
B.) Freedom of conscience	8	9.0
C.) Private property rights	15	16.9
D.) Right to be left alone (privacy)	4	4.5
	P-value = .70	
	P-value = .586	

Q56: A representative democracy is a form of government where		
	Frequency	Percent
A.) frequent and fair elections allow citizens to vote on go	4	13.8
B.) two or more political parties are actively functioning to influence government policies	10	34.5
C.) government officials are duty sworn to represent all of their constituents	5	17.2
D.) citizens elect the representatives in order to influence the actions of government	29	34.5
Total	89	100.0
Item # 56	Item Difficulty P-value = .53	Item Discrimination P-value = .345

Q57: Which principle did the Framers use to achieve ALL of the following goals “to form a more perfect union, establish justice, insure domestic tranquility, provide for the common defense, promote the general welfare, and secure the blessings of liberty”?

	Frequency	Percent
A.) Representative democracy	16	18.0
B.) Constitutionalism	44	49.4
C.) Citizenship	14	15.7
D.) Civil society	15	16.9
Total	89	100.0

Item # 57	Item Difficulty P-value = .49	Item Discrimination P-value = .339
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Q59: Which of the following constitutional principles was devised as a compromise between a powerful central government and a loosely organized confederation of states?

	Frequency	Percent
A.) Federalism	42	47.2
B.) Liberalism	21	23.6
C.) Constitutionalism	20	22.5
D.) Rule of law	6	6.7
Total	89	100.0

Item #59	Item Difficulty P-value = .47	Item Discrimination P-value = .303
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Q60: The Bill of Rights in the U. S. Constitution specifically protects all of the following EXCEPT:		
	Frequency	Percent
<i>A.) Right to an education</i>	40	44.9
B.) Right not to self-incriminate	45	50.6
C.) Right to due process of law	3	3.4
D.) Right to free speech	1	1.1
Total	89	100.0
Item # 60	Item Difficulty P-value = .58	Item Discrimination P-value = .262

Q62: Jason found that he could not open a new bar in his local community because liquor licenses were limited by the local government. Which aspect of a free market economy is demonstrated by this condition?		
	Frequency	Percent
A.) Equality of economic opportunity	8	9.0
B.) Productive use of capital	3	3.4
C.) Economic rewards based on merit	5	5.6
<i>D.) Business regulation by government</i>	73	82.0
Total	89	100.0
Item # 62	Item Difficulty P-value = .82	Item Discrimination P-value = .195

Q64: The teaching of 'creationism' in public schools has been restricted because		
	Frequency	Percent
A.) the majority of citizens don't believe in it.	0	0
B.) it is not based upon valid scientific evidence.	13	14.6
C.) it attempts to establish religion in violation of the First Amendment	52	58.4
D.) it is too controversial.	23	25.8
Total	88	98.9
Missing System	1	1.1
Total	89	100.0
Item #64	Item Difficulty P-value = .58	Item Discrimination P-value = .277

Q65: 'Americans of all ages, all stations in life, and all types of disposition are forever forming associations where in France you would find the government or in England some territorial magnate, in the United States you are sure to find an association.		
	Frequency	Percent
A.) an independent judiciary.	15	16.9
B.) freedom of speech.	13	14.6
C.) the right to dissent.	13	14.6
D.) civil society.	48	53.9
Total	89	100.0
Item # 65	Item Difficulty P-value = .54	Item Discrimination P-value = .313

Q66: Which of the following is an example of an organization that falls within the category of civil society?		
	Frequency	Percent
A.) The U.S. Forestry Service	6	6.7
B.) The Colorado State Board of Education	13	14.6
C.) The Lexington, Kentucky City Council	16	18.0
<i>D.) The Hartford, Connecticut League of Women Voters</i>	54	60.7
Total	89	100.0
Item # 66	Item Difficulty P-value = .61	Item Discrimination P-value = .352

Q69: Which of the following conditions are thought to be most necessary in a well-functioning market economy?		
	Frequency	Percent
<i>A.) Large numbers of producers and consumers freely entering</i>	38	42.7
B.) Government regulations protecting businesses and jobs	34	38.2
C.) Government production of many essential goods and services	14	15.7
D.) No government interference in the economic activity	3	3.4
Total	89	100.0
Item # 69	Item Difficulty P-value = .43	Item Discrimination P-value = .524

Q71: Under the U.S. Constitution, the power to tax at the federal level belongs to the		
	Frequency	Percent
A.) President.	11	12.4
B.) Department of the Treasury.	30	33.7
C.) Supreme Court.	11	12.4
D.) Congress.	37	41.6
Total	89	100.0
Item # 71	Item Difficulty P-value = .42	Item Discrimination P-value = .455

Q74: The laws of supply and demand		
	Frequency	Percent
A.) set the price that all producers must charge.	14	15.7
B.) determine market price.	70	78.7
C.) work best in a command economy.	3	3.4
D.) cancel each other out.	2	2.2
Total	89	100.0
Item # 74	Item Difficulty P-value = .79	Item Discrimination P-value = .376

Q75: 'A democratic society based on a free and open social order' would include all of the following EXCEPT:		
	Frequency	Percent
A.) Upward mobility based on merit	13	14.6
B.) Equality of social opportunity	25	28.1
C.) Government regulation of access to education	33	37.1
D.) A variety of private organizations and interest groups	17	19.1
Total	88	98.9
Missing System	1	1.1
Total	89	100.0
Item # 75	Item Difficulty P-value = .37	Item Discrimination P-value = .336

Q77: Popular sovereignty is the idea that		
	Frequency	Percent
A.) unpopular elected officials should be impeached.	3	3.4
B.) people should be more powerful than government.	10	11.2
C.) people serve as the source of authority for government.	32	36.0
D.) people influence government through participation in political parties.	43	48.3
Total	88	98.9
Missing System	1	1.1
Total	89	100.0
Item # 77	Item Difficulty P-value = .36	Item Discrimination P-value = .224

Q78: Former U.S. Congressman Lee Hamilton has suggested that the U.S. Congress is no longer the powerful and influential institution that it once was and that it does not exercise the authority that it should in comparison to other branches of the government. He is apparently concerned about which of the following issues

	Frequency	Percent
A.) social justice	13	14.6
B.) checks and balances	56	62.9
C.) due process	7	7.9
D.) independent judiciary	11	12.4
Total	87	97.8
Missing System	2	2.2
Total	89	100.0
Item # 78	Item Difficulty P-value = .62	Item Discrimination P-value = .532

Q79: 'Where everyman is...participator in the government of affairs, not merely at an election one day in the year but every day...he will let the heart be torn out of his body sooner than his power be wrested from him by a Caesar or a Bonaparte.' –Thomas Jefferson (1816) Jefferson's main point here is that

	Frequency	Percent
A.) Elections must be held regularly for democracy to function well.	22	24.7
B.) The active participation of citizens is necessary to avoid totalitarian rule.	51	57.3
C.) Citizens should be willing to sacrifice for their country.	14	15.7
D.) Individual liberty takes precedence over the common good	2	2.2
Total	89	100.0
Item # 79	Item Difficulty P-value = .57	Item Discrimination P-value = .313

Q81: The primary standard by which a representative democracy is distinguished from a non-democracy is		
	Frequency	Percent
A.) voting by the people for candidates of the ruling political party.	21	23.6
B.) accountability of government officials to the most popular political party.	12	13.5
C.) voting by citizens in free, fair, and competitive elections of representatives.	42	47.2
D.) accountability of government officials to opinions of the majority of the people.	12	13.5
Total	87	97.8
Total	89	100.0
Item # 81	Item Difficulty P-value = .47	Item Discrimination P-value = .416

Q83: Which type of economic system is most compatible with a constitutional democracy?		
	Frequency	Percent
A.) Democratic socialism	28	31.5
B.) Monopoly capitalism	9	10.1
C.) Command economy	5	5.6
D.) Market economy	45	50.6
Total	87	97.8
Missing System	2	2.2
Total	89	100.0
Item #83	Item Difficulty P-value = .51	Item Discrimination P-value = .313

Q85: In the United States, voting, serving on a jury, paying taxes, and obeying laws are		
	Frequency	Percent
A.) guaranteed rights of citizenship.	10	11.2
B.) responsibilities of citizenship.	69	77.5
C.) civic virtues.	5	5.6
D.) benefits of citizenship.	4	4.5
Total	88	98.9
Missing System	1	1.1
Total	89	100.0
Item # 85	Item Difficulty P-value = .78	Item Discrimination P-value = .45

Q88: Which of the following principles are best represented by this James Madison quotation? 'If men were angels, no government would be necessary. If angels were to govern men, neither external nor internal controls of government would be necessary'		
	Frequency	Percent
A.) Government is designed to safeguard all citizens.	55	61.8
B.) Government does not represent all of the people.	19	21.3
C.) Legislators are trustworthy and honest representatives.	9	10.1
D.) Before the Constitution was written, individuals ruled themselves	6	6.7
Total	89	100.0
Item #88	Item Difficulty P-value = .61	Item Discrimination P-value = .559

Q90: In a representative democracy, there is		
	Frequency	Percent
A.) equality of power among the people.	36	40.4
B.) popular sovereignty.	34	38.2
C.) popular policy making.	13	14.6
D.) equality of living standards.	6	6.7
Total	89	100.0
Item #90	Item Difficulty P-value = .38	Item Discrimination P-value = .262

Q93: Naturalized citizens		
	Frequency	Percent
A.) do not have the right to vote.	4	4.5
B.) are required to learn to speak English.	2	2.2
C.) cannot serve as president of vice president of the Unite	36	40.4
D.) were born on United States soil.	47	52.8
Total	89	100.0
Item # 93	Item Difficulty P-value = .40	Item Discrimination P-value = .469

Q94: Which of the following is not traditionally a function of the democratic government?		
	Frequency	Percent
A.) To establish the rule of law	5	5.6
B.) To establish a specific religion	67	75.3
C.) To tax for the common good	7	7.9
D.) To protect civil liberties	10	11.2
Total	89	100.0
Item # 94	Item Difficulty P-value = .75	Item Discrimination P-value = .376

Appendix D:

Delphi Panel Item Rankings and Averages

I. Constitutionalism

	Rank and Average Rating	A. Rule of Law	B. Limited Government	C. Constitutional Government	D. Forms of Constitutional Government
1	3.38 7	1			
2	3.25		2	2, 3	1?
3	2.63				
4	3.13				
5	3.50 5				1
6	3.25				
7	3.63 1	1, 2, 3, 4			
8	3.50 6		2, 3	3, 4	
9	3.63 2	3			
10	3.38 8			1, 2, 3, 4, 5	
11	3.00				
12	3.38 9		1,2,3,5	1,2,3,4	
13	2.38				
14	2.38				
15	3.25				
16	3.63 3		1,2,3	2,3,4	
17	2.88				
18	2.57				
19	3.29 10	1,2,3,4			
20	3.57 4	1,2,3,4	1,2	1	

I. Constitutionalism

A. Rule of Law

1. Due process
2. Equitable enforcement
3. Equal protection of the law
4. Equal justice under the law

B. Limited Government

1. Powers are enumerated
2. Powers are separated and distributed among different departments or branches

3. Checks and balances system among the departments or branches
4. Decentralization of power throughout the state
5. Accountability to the people through a democratic electoral process

C. Constitutional Government

1. Constitution, framework for government, usually a written document
2. Government functions within the framework
3. Government both empowered and limited to achieve ordered liberty
4. Separation of powers with checks and balances to both empower and limit government
5. Independent judiciary with power of judicial review to maintain limited government

D. Forms of Constitutional Government

1. Federal System (Federalism)
2. Confederal System (Confederalism)
3. Unitary System

Constitutionalism Comments:

Apollo: I think quite a few of the items will be very difficult for the average teacher in training to answer correctly. Item #18 should begin with the word “What” rather than “That.” Item #13 should be written in the past tense. Items 3 and 4 need to have the “foil from...” phrases deleted! Also, certain elements of the outline get more treatment than others.

Aries: I’m doing my best but there are items that are well-worded yet incorrect/inaccurate and there is no number to rate these.

Artemis: Typo in #18, also some questions are redundant.

Demeter: In #2 simplify. In #12 it is too hard. In #13 simplify the prompt and the correct distractor is the only compound phrase. In #20 no elementary student will understand distractors c and d, so they become throw-away distractors. We are also assuming elementary students “enumerated”. Couldn’t we use a more accessible word that still can measure their understanding of the concept?

II. Representative Democracy

?	Rank and Average	Popular Sovereignty	Electoral Democracy	Public Policy	Comments
1	2.25				
2	3.63 3	1,2	3,6		
3	3.75 2	1,2	6		
4	3.25 7	1,2	3,4,6		
5	2.38		1,6		
6	2.88				
7	3.13 10	1,2	4, 6		
8	3.88 1	1,2	4, 6		
9	3.63 4	1,2	4, 6		
10	3.50 6	1,2	4,6		? #11 and #9 redundant
11	3.25 8	1,2	4,6		
12	3.25 9		5		
13	2.88				
14	2.63				
15	2.75				
16	3.63 5	1, 2	1, 4, 6		
17	3.00				

II. Representative Democracy

A. Popular Sovereignty

1. People as source of authority for government
2. Government by consent of the governed, the people

B. Electoral Democracy

1. Free, fair, competitive, regularly scheduled elections
2. Inclusive eligibility to vote for representative government
3. Indirect majority rule by the people through their elected representatives
4. Inclusive participation by the people to influence representatives in government
5. Two or more political parties
6. Accountability of representatives to the people

C. Public Policy

Representative Democracy Comments:

Apollo: Shouldn't item #16 say "every two years?" Could the correct answer for item #17 be changed to say either "senators and representatives" or just "representatives?" Please not that there are inconsistencies in the formatting of items 9 e.g., some are indented more than others and some items begin each foil with a capital letter and some with a lower case letter.)

Aries: 16. Not all are elected for 4 years. 17 b. is not a branch but individuals.

Demeter: #1 This is not type of question we want to ask and engage students. #2 distribute C too attractive. #3 simplify distractor "d" and shorten the distractor. #5 change the language "provision" either in the stem or the distractor D, you have cued them to the correct answer. Really change the word in both, use something more accessible. #7 change one of the distractors and the order. #9 Change order of distractors. #12 change distractor B. #14 Too difficult of a question. #15 Simplify distractor F.

Poseidon: Question #12 delete "s" in characteristic(s). #15 – Is there a "best way."

Artemis: I understand what #5 is getting at, but it is not well written. #6 is too vague. Other questions I ranked with a 2 could be better/more clearly written.

III. Citizenship

?	Rank and Average	Citizen, legal status	Civic Identity	Civic Dispositions	Civic Duties and Responsibilities	Rights of Citizenship (Exclusive to the status of the citizen)
1	3.38 5		1,2,3	1,2,3	1,2,3	
2	3.63 1		1,2,3	1,2		“rights” vs. “pursuit”
3	2.75					
4	3.50 4	2				
5	3.25 7			1	1	
6	3.63 2					
7	2.20					
8	2.20					
9	3.63 3				1	
10	3.38 6				1	
11	3.00 10		1,2,3			
12	2.63					
13	3.13 8	2				
14	2.88					
15	2.63					
16	3.13 9		1,2,3	1,2,3		Constitutionalism Measure?

III. Citizenship

A. Citizen, legal status

1. Natural citizen
2. Naturalized citizen

B. Civic Identity

1. Common attribute of citizens
2. Common bond of a civic community
3. Commitment to common civic culture

C. Civic Dispositions

1. Characteristics of the good citizen
2. Civic virtue
3. Civic morality

D. Civic Duties and Responsibilities

1. Civic and political engagement
2. Loyalty to the state and government

3. Commitment to the common good

E. Rights of Citizenship (Exclusive to the status of the citizen)

1. Voting for Representatives in Government
2. Qualification to hold certain high government offices

Citizenship Comments:

Apollo: Could the correct answer on #15 say violent instead of hostile? After all, hostility is not against the law.

Aries: 1. Is incorrect; there are only 2 citizenship responsibilities—to vote and to serve on a jury when called. Only citizens are responsible for paying taxes?? #3 being law-abiding is not virtuous? 12 is incorrect; 13 is slightly incorrect since under 18 year olds become citizens when their parents become citizens, I think. 15 why is b not disallowed? 16 is not really relevant to citizenship.

Demeter: #3 Change distractor A cueing from stem change distractor B. #4 Distractor Bi is throwaway. #6 Change distractor C and D. Make D more similar in structure to C. #9 Change distractor A. #10 Change one of the other distractors so one is similar to correct distractor C. #11 Change distractor B or C. #12 Change distractor B. #12 Change distractor B into a compound phrase. #14 Shorten prompt. Make another distractor a compound phrase.

Poseidon: #10 can be improved if we change one of the distractors from suffrage or franchise to another choice.

Artemis: #14 is just too wordy and vague. #15 simply seems incorrect to me.

IV. Human Rights

	Average Rank	Political and Public Rights	Personal and Private Rights	Economic and Social Rights	Rights of Accused Person	Ongoing Issues on Government's Responsibilities for Rights
1	6			2		1, 2, 3
2	7	3				1, 4
3	8	2, 3				1
4	9			2		2
5	10	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4		1, 2, 3, ?
6	2	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4		1, 2, 3, 4
7	3	3	1			1, 2, 3, 4
8	5					1, 2
9						
10	11					3
11	4	2, 3	1, 2, 3, 4			1, 2, ?
12	1	3				1
13						
14						
15						
16						

IV. Human Rights

A. Political and Public Rights

1. Voting
2. Political participation beyond voting
3. Civil liberties necessary to free political participation

B. Personal and Private Rights

1. Freedom of conscience
2. Right to be left alone (privacy)
3. Personal pursuit of happiness
4. Private property rights

C. Economic and Social Rights

1. Social security and welfare entitlements
2. Right to an education
3. Right to minimum income
4. Right to safe working conditions

D. Rights of Accused Person

E. Ongoing Issues on Government's Responsibilities for Rights

1. Political and personal rights: what should the government be constitutionally prohibited from denying to individuals?
2. Economic and social rights: what should the government be constitutionally empowered to provide for individuals
3. Equality and fairness for all the people in their exercise of rights and receipt of entitlements: How do we know when justice is achieved in the distribution of rights and entitlements?
4. Right to dissent

Human Rights Comments:

Apollo: Delete the foil language on number four. ON number 3 could a real political right beyond voting be substituted such as "working for a local candidate?"

Aries: 4. Except for d, I think they are all correct. 5. My wife says that the verb should always be in the stem and she's a teacher and watching. 14 Interestingly, I think, Communist and 3rd world reps reject property right for inclusion in the UNDHR! But I gave it a 3 for other reasons having to do with wording. 16 does not relate directly to human rights.

Demeter: #3 Change distractor C. #5 incorrect cueing in distractor A. #6 Change order of distractors. #8 all the distractors are confusing. #13 Simplify language in the prompt and shorten the prompt itself. #14 Change distractor A word choice, dissemination and distractor B what does this even mean...it becomes a throw away distractor. Many of the items in the is group seem to be definitional type questions

V. Civil Society

	Rank and Average	a. Pluralism and Diversity in the Society	b. Private Sources of Social-Political Power and Resources	c. Open and Free Social Order	Comments
1	3.88 1	4	1		
2	3.13 10*			1, 2, 3, 4	Check, sketchy
3	3.13 10*		1, 2		Despotic Vocab.
4	2.75				
5	3.75 2	1, 2, 3, 4	1, 2		
6	2.63				
7	3.63 4	1, 2, 3, 4	1, 2		
8	3.75 3	1, 2, 3, 4	1, 2		
9	3.38 8	1, 2, 3, 4, 5	1, 2		
10	3.63 5	1, 2, 3, 4	1, 2		
11	3.63 6	1, 2, 3, 4	1, 2		
12	3.38 9	1, 2, 3, 4, 5	1, 2		
13	3.50 7	1, 2, 3, 4	1, 2		
14a	2.50				
14b	3.13 10*	5			Section I, IV
15	2.13				
16	2.57				

V. Civil Society

A. Pluralism and diversity in the society

1. Free expression and exercise of various individual and group interests
2. Freedom of association
3. Multiplicity of social, cultural, and political identities
4. Voluntary civil associations or non-governmental organizations
5. Regulation of society by government to prevent either anarchy or tyranny

B. Private Sources of Social-Political Power and Resources

1. Nongovernmental organizations and institutions as private sources of support for the common good
2. Nongovernmental organizations and institutions as countervailing forces against despotic tendencies in government

C. Open and Free Social Order

1. Flexible social class structure
2. Equality of social opportunity
3. Upward mobility based on merit
4. Freedom within a context of regulation by government in a representative democracy

Civil Society Comments:

Apollo: I think some of the items, for example #14, are too long. Also, on #14, I don't see why "a" could not also be a correct response in the opinion of some test-takers. Could #15 be rephrased to say One of the purposes of... and then the correct answer be rephrased as "help shape nation's foreign policies."

Aries: 2. I'd have to say that the regulations could conceivably be designed to open access. Other items get low marks because the stem is long-winded, or the right answer is wrong, or there are 2 or more right answers.

Demeter: #2 change distractor A and change C to a simpler distractor. #3 Simplify the language in the stem, distractor C is way too difficult. #4 Distractors C and D are too complicated and difficult, not accessible to students. #5 change distractor D. #9 change D which is also the correct answer. #13 change word "commenter" ...elementary students do not know this word. Mixing singular and compound phrases amongst your distractors is never advised. First #14 is way too complicated, eliminate or rewrite. Second #14 change distractor D.

Poseidon: Wording on #15—The U.N. does not "provide foreign policy." Questions rated 3 in this section are good; I simply think they are not as well written as similar questions that I rated 4.

VI. Market Economy

?	Rank and Average	a. Free Market	b. Private Sources of Economic and Political Power and Resources	c. Open and Free Economical Order	Comments
1	3.57 4			3	Section I, B, 2
2	3.88 1	1, 2	3	1, 2, 3	
3	3.13				
4	3.50 5			3	
5	3.50 6	1, 2, 3, 4			
6	3.50 7	1		3 ?	
7	3.50 8		3	1, 3	
8	3.25				
9	2.75				
10	2.50				
11	3.38 9	4	1, 2, 3	3	
12	3.88 2	1, 2, 3, 4			
13	3.75 3	1, 2, 3, 4	3	1, 2, 3	
14	3.38 10		3	3	
15	2.00				
16	3.13				

VI. Market Economy

A. Free Market

1. Freedom of exchange
2. Protection of private property
3. Productive use of capital
4. Regulation by the government to prevent either economic anarchy or monopoly capitalism

B. Private Sources of Economic and Political Power and Resources

1. Non-governmental economic organizations and institutions as private sources of power for the common good
2. Non-governmental economic organizations and institutions as countervailing sources of power against the despotic tendencies of government
3. Freedom of opportunity for individuals to obtain and cultivate economic capital

C. Open and Free Economic Order

1. Equality of economic opportunity

2. Economic rewards based on merit
3. Economic freedom within a context of regulation by government in a representative democracy

Market Economy Comments:

Apollo: There was a lot more variety among these items. Perhaps this is because this element of the outline is the newest in terms of our group thinking.

Aries: 4. Unlikely that mere regulation itself is cause of prohibition or denial. 6. In a properly functioning market economy. 9. Typo. Answer should be B not D. 15. No apparent relevance to market economy.

Demeter: Simplify the distractors. #8 Too difficult. #9 Simplify D. #15 Distractor are compound and mixed phrases. #11 Revisit these distractors.

Poseidon: #5 needs revision—individuals make decisions in a market economy, not the market. #9 and 10 do not accurately represent a market economy. #9—Free entry of suppliers works against the collusion of producers and #10—many individuals shop for private elementary, secondary schools, private, and public universities.

VII. Examples of Non Democracy

	Rank and Average	Totalitarianism/Socialism/Communism	Authoritarianism	Autocracy	Absolute Monarchy	Aristocratic Oligarchy	Theocracy	Non-democratic Republic	Comments
1	3.75 1	A							
2	3.50 4								Defines Democracy
3	3.00								
4	3.50 5			C					
5	2.75								
6	3.38 7			C	D	E	F		
7	3.25 10*	A							
8	3.38 8	A							
9	3.50 6							G	
10	3.13								
11	3.38 9								? DEMOC.
12	3.75 2							G	
13	3.75 3	A							
14	3.25 11*	A?	B?						Dictatorship
15	2.71								Artemis. Wrong section

VII. Examples of Non-Democracy

- A. Totalitarianism/Socialism/Communism
- B. Authoritarianism
- C. Autocracy
- D. Absolute Monarchy
- E. Aristocratic Oligarchy
- F. Theocracy
- G. Non-democratic Republic

Non-Democracy Comments:

Apollo: Incomplete

Aries: 6. Theocracy is not bound by the number of theocrats.

Demeter: #3 Revisit the distractors not all are really forms of government. #3 No one will know distractor D. #4 Change distractor D to a single word that students can actually understand. #7 Simplify all the distractors especially B...oh, my god! #15 Not all distractors are forms of government.

Poseidon: Choose between #10 and #11—I think 11 is better.

Artemis: Does # 16 belong in this

Appendix E:

Civic Knowledge Inventory Retained Items

* Numbering from original CKI items from preliminary study

I. Constitutionalism

29. Due process is based on the principle that
- A. government officials must follow the law.
 - B. police officers must have the power to enforce the law.
 - C. citizens' rights are more important than common good.
 - D. criminal justice must be financially responsible.
31. The founding fathers believed the separation of powers was important to
- A. prevent the abuse of power.
 - B. make the government more responsible.
 - C. provide for greater voting rights.
 - D. allow for greater economic equity.
51. Which of the following provisions of the U.S. Constitution is also a major characteristic of the rule of law?
- A. freedom of speech
 - B. freedom of religion
 - C. a well regulated militia
 - D. equal protection under the law
52. If a police officer in the U.S. makes an arrest and does not inform the suspect of his or her rights, which constitutional principle is the police officer violating?
- A. eminent domain
 - B. equal protection
 - C. due process
 - D. unreasonable search
57. Which principle did the Framers use to achieve ALL of the following goals “to form a more perfect union, establish justice, insure domestic tranquility, provide for the common defense, promote the general welfare, and secure the blessings of liberty”?
- A. representative democracy
 - B. constitutionalism
 - C. citizenship
 - D. civil society

59. Which of the following constitutional principles was devised as a compromise between a powerful central government and a loosely organized confederation of states?

- A. federalism
- B. liberalism
- C. constitutionalism
- D. rule of law

78. Former U.S. Congressman Lee Hamilton has suggested that the U.S. Congress is no longer the powerful and influential institution that it once was and that it does not exercise the authority that it should in comparison to other branches of the government. He is apparently concerned about which of the following issues...

social justice

checks and balances

due process

independent judiciary

II. Representative Democracy

27. In a representative democracy, citizens have the right to which of the following:

- A. free, fair and regularly scheduled elections
- B. economic justice
- C. public education
- D. all forms of personal expression

30. Representative democracy is based on the principle of

- A. popular sovereignty.
- B. rule of law .
- C. equality of justice.
- D. due process of law.

34. Every four years citizens vote for their representatives in government. Which of the following statements from the Declaration of Independence best reflects this principle?

- A. "among these [rights] are Life, Liberty, and the pursuit of Happiness
- B. "all men are created equal"
- C. "deriving their just powers from the consent of the governed [people]"
- D. "they are endowed by their Creator with certain inalienable rights"

44. "As citizens of this democracy, you are the rulers and the ruled, the lawgivers and the law-abiding, and the beginning and the end."

-- Adlai Stevenson (c. 1956)

This statement addresses the principle of

- A. equal protection.
- B. habeas corpus.
- C. popular sovereignty.
- D. civil rights.

56. A representative democracy is a form of government where
- A. frequent and fair elections allow citizens to vote on government policies.
 - B. two or more political parties are actively functioning to influence government policies.
 - C. government officials are duty sworn to represent all of their constituents.
 - D. citizens elect their representatives in order to influence the actions of government.
77. Popular sovereignty is the idea that
- A. unpopular elected officials should be impeached.
 - B. people should be more powerful than government.
 - C. people serve as the source of authority for government.
 - D. people influence government through participation in political parties.
90. In a representative democracy, there is
- A. equality of power among the people.
 - B. popular sovereignty.
 - C. popular policymaking.
 - D. equality of living standards.

III. Citizenship

32. What do citizens of a constitutional democracy have in common?
- A. civic identity
 - B. political party identity
 - C. Equal political power
 - D. Equal civic competence
54. You exercise a right reserved for citizens every time you
- A. Speak your mind.
 - B. get a fair trial
 - C. receive equal protection of the laws.
 - D. Vote in public elections
- 63 Which of the following is a right of citizenship only guaranteed to natural or naturalized citizens?
- A. The right to a trial by jury
 - B. Access to public parks
 - C. Freedom of association
 - D. Possession of a US passport
- 85 The United States, voting, serving on a jury, paying taxes and obeying laws are
- A. guaranteed rights of citizenship.
 - B. Responsibilities of citizenship
 - C. Civic virtues
 - D. Benefits of citizenship

- 83 Naturalized citizens
- A. do not have the right to vote
 - B. are required to learn English
 - C. cannot serve as president or vice president of the United States
 - D. were born on United States Soil

IV. Human Rights

35. Which form of dissent pioneered by Gandhi in India has also been used in the U.S. and other countries to protest injustice?

- A. obtaining foreign aid
- B. violent revolution
- C. civil action
- D. nonviolent civil disobedience

38. The term “tyranny” refers to a
- A. strong central government.
 - B. powerful monarchy.
 - C. government that abuses its powers.
 - D. government controlled by terrorists.

39. “I fear three newspapers more than a hundred bayonets.”
—Napoleon Bonaparte (c. 1800)

This statement emphasizes the importance of

- A. the right to bear arms.
- B. freedom of expression.
- C. judicial restraint.
- D. civil disobedience.

55. Human rights can be divided into political/public rights and personal/private rights. Which of the following is a political/public right?

- A. political participation beyond voting
- B. freedom of conscience
- C. private property rights
- D. right to be left alone (privacy)

60. The Bill of Rights in the U. S. Constitution specifically protects all of the following EXCEPT:

- A. right to an education
- B. right not to self-incriminate
- C. right to due process of law
- D. right to free speech

64. The teaching of “creationism” in public schools has been restricted because
- A. the majority of citizens don’t believe in it.
 - B. it is not based upon valid scientific evidence.
 - C. it attempts to “establish” religion in violation of the First Amendment.
 - D. it is too controversial.

V. Civil Society

22. What do citizens of a constitutional democracy have in common?

- A. civic identity
- B. political party identity
- C. equal political power
- D. equal civic competence

25. Commentators such as Alexis De Tocqueville in the 1830s and more recently Robert Putnam has written about the importance of a civil society in maintaining the American Republic. Which of the following activities best exemplifies involvement in civil society?

- A. voting in primary and general elections
- B. participating in PTA and Lions Clubs
- C. serving in the military
- D. representing a district in Congress

26. The civil society of a constitutional democracy exemplifies

- A. civic engagement.
- B. civil authority.
- C. civil law.
- D. civic identity

61. In his book, *Democracy in America*, Alexis de Tocqueville said, “An association for political, commercial or manufacturing purposes, or even for those of science or literature, is a powerful and enlightened member of the community . . . which, by defending its own rights against encroachments of government, saves the common liberties of the country.” This statement refers directly to the

- A. market economy in a democracy.
- B. civil society in a democracy.
- C. political parties in a democracy.
- D. governmental organizations in a democracy
- E.

65. “Americans of all ages, all stations in life, and all types of disposition are forever forming associations...where in France you would find the government or in England some territorial magnate, in the United States you are sure to find an association.” -- Alexis De Tocqueville (1835)

Here De Tocqueville is referring to the importance of

- A. an independent judiciary.
- B. freedom of speech.
- C. the right to dissent.
- D. civil society.

66. Which of the following is an example an organization that falls within the category of civil society?

- A. The U.S. Forestry Service
- B. The Colorado State Board of Education
- C. The Lexington, Kentucky City Council
- D. The Hartford, Connecticut League of Women Voters

75. “A democratic society based on a free and open social order” would include all of the following EXCEPT:

- A. upward mobility based on merit
- B. equality of social opportunity
- C. government regulation of access to education
- D. a variety of private organizations and interest groups

88. Which of the following principles are best represented by this James Madison quotation? “If men were angels, no government would be necessary. If angels were to govern men, neither external nor internal controls of government would be necessary.”

- A. Government is designed to safeguard all citizens.
- B. Government does not represent all of the people.
- C. Legislators are trustworthy and honest representatives.
- D. Before the Constitution was written, individuals ruled themselves.

VI. Market Economy

23. When the private activities of individuals have the potential to create harm to others economists often call for government to step in with legislation or regulation. All but one of the following examples might call for a measure of government regulation. Which is the exception?

- A. ABC Pharmaceutical Corporation develops a new drug to combat arthritis.
- B. A company wishes to purchase land next to a residential neighborhoods to expand its parking lot.
- C. An individual wishes to start private practice as a medical doctor
- D. A company chooses to relocate to a larger facility.

36. An essential characteristic of a market economy is

- A. the right of individuals to make economic choices.
- B. government control of the market.
- C. equal distribution of economic capital.
- D. the right of individuals to become wealthy through the stock market.

40. Freedom of exchange, protection of private property, and freedom of individual economic opportunity are all essential components of

- A. a command economy.
- B. a traditional economy.
- C. a market economy.
- D. a globalized economy.

62. Jason found that he could not open a new bar in his local community because liquor licenses were limited by the local government. Which aspect of a free market economy is demonstrated by this condition?

- A. equality of economic opportunity
- B. productive use of capital
- C. economic rewards based on merit
- D. business regulation by government

69. Which of the following conditions are thought to be most necessary in a well-functioning market economy?

- A. large numbers of producers and consumers freely entering and leaving
 - a. markets
- B. government regulations protecting businesses and jobs
- C. government production of many essential goods and services
- D. no government interference in the economic activity

71. Under the U.S. Constitution, the power to tax at the federal level belongs to the

- A. President.
- B. Department of the Treasury.
- C. Supreme Court.
- D. Congress

74. The laws of supply and demand

- A. set the price that all producers must charge.
- B. determine market price.
- C. work best in a command economy.
- D. cancel each other out.

83. Which type of economic system is most compatible with a constitutional democracy?

- A. democratic socialism
- B. monopoly capitalism
- C. command economy
- D. market economy

VII. Example of Non-Democracy

45. An oligarchy, an aristocracy and a theocracy are all examples of

- E. rule by a few.
- F. rule by one.
- G. rule by many.
- H. rule by all.

46. All of the countries in the following list are examples of a constitutional democracy EXCEPT:

- A. Islamic Republic of Iran

- B. United Kingdom of Great Britain
- C. Federal Republic of Germany
- D. The Czech Republic

47. Which of the following forms of government is most restrictive?

- A. monarch
- B. federalism
- C. dictatorship
- D. republic

50. A form of government ruled by one authoritarian party that centralizes economic planning and eliminates the private ownership of property is called

- A. communism.
- B. socialism.
- C. fascism.
- D. constitutional monarchy.

79. "Where everyman is...participator in the government of affairs, not merely at an election one day in the year but every day...he will let the heart be torn out of his body sooner than his power be wrested from him by a Caesar or a Bonaparte."

--Thomas Jefferson (1816)

Jefferson's main point here is that...

- A. Elections must be held regularly for democracy to function well.
- B. The active participation of citizens is necessary to avoid totalitarian rule.
- C. Citizens should be willing to sacrifice for their country
- D. Individual liberty takes precedence over the common good.

81. The primary standard by which a representative democracy is distinguished from a non-democracy is

- A. voting by the people for the candidates of the ruling political party.
- B. accountability of government officials to the most popular political party.
- C. voting by citizens in free, fair, and competitive elections of representatives.
- D. accountability of government officials to opinions of the majority of the people.

84. Which of the following is not traditionally a function of a democratic government?

- A. to establish the rule of law
- B. to establish a specific religion
- C. to tax for the common good
- D. to protect civil liberties

Appendix F:

Civic Knowledge Inventory - Items Removed

Q22: Civil Society can be defined as				
	Frequency	Percent	Valid Percent	Cumulative Percent
A.) a network of voluntary associations.	11	12.4	12.4	12.4
B.) a legal relationship between citizens and their government	44	49.4	49.4	61.8
C.) a working understanding by citizens of the justice system	34	38.2	38.2	100.0
D) content knowledge of the function of government	0	0	0	
Total	89	100.0	100.0	
Item # 22	Item Difficulty P-value = .10	Item Discrimination P-value = .131	Recommendation Remove	

Q24: Which phrase best describes the idea of representative democracy?				
	Frequency	Percent	Valid Percent	Cumulative Percent
A.) with liberty and justice for all	1	1.1	1.1	1.1
B.) government of the people, by the people, and for the people	81	91.0	91.0	92.1
C.) a new nation conceived in liberty	3	3.4	3.4	95.5
D.) life, liberty, and the pursuit of happiness	4	4.5	4.5	100.0
Total	89	100.0	100.0	
Item #24	Item Discrimination P-value = .16	Recommendation Removed		

Q28: All of the following are rights reserved exclusively to citizens EXCEPT:				
	Frequency	Percent	Valid Percent	Cumulative Percent
A.) Suffrage	32	36.0	36.0	36.0
B.) Franchise	33	37.1	37.1	73.0
C.) Membership in a political party	16	18.0	18.0	91.0
D.) Jury service	8	9.0	9.0	100.0
Total	89	100.0	100.0	
Item #28	Item Difficulty P-value = .18	Item Discrimination P-value = .195	Recommendation Remove	

Q33: Which of the following is an example of civil society?				
	Frequency	Percent	Valid Percent	Cumulative Percent
A.) The City Waste Management Department picks up garbage once a week.	4	4.5	4.5	4.5
B.) Local college students run a tutoring program for struggling elementary schools children.	29	32.6	32.6	37.1
C.) The State Emergency Management Agency decides on a hurricane evacuation plans.	18	20.2	20.2	57.3
D.) A builder asks the county commission's zoning board to for a new residential housing development.	38	42.7	42.7	100.0
Total	89	100.0	100.0	
Item # 33	Item Difficulty P-value = .32	Item Discrimination P-value= .178	Recommendation Remove	

Q37: Article 39 of England's Magna Carta of 1215 says, 'No freeman shall be taken or imprisoned . . . unless by the lawful judgment of his peers, or by the law of the land.'

This statement is an example of

	Frequency	Percent	Valid Percent	Cumulative Percent
A.) constitutionalism.	44	49.4	49.4	49.4
B.) democracy.	33	37.1	37.1	86.5
C.) communitarianism.	7	7.9	7.9	94.4
D.) meritocracy.	5	5.6	5.6	100.0
Total	89	100.0	100.0	

Item # 37	Item Difficulty P-value = .49	Item Discrimination P-value= .151	Recommendation Remove
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Q41: Which of the following elements of democratic government is most likely to be missing in a totalitarian government?

	Frequency	Percent	Valid Percent	Cumulative Percent
A.) A written constitution	8	9.0	9.0	9.0
B.) A system of checks and balances	49	55.1	55.1	64.0
C.) Trial by jury	14	15.7	15.7	79.8
D.) Periodic elections	18	20.2	20.2	100.0
Total	89	100.0	100.0	

Item # 41	Item Difficulty P-value = .55	Item Discrimination P-value = .317	Recommendation Remove
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Q43: Which of the following constitutes a necessary condition for a government to be considered totalitarian?				
	Frequency	Percent	Valid Percent	Cumulative Percent
A.) It places limits on the rights of citizens.	26	29.2	29.5	29.5
B.) It establishes restrictions on economic activity.	9	10.1	10.2	39.8
C.) It is controlled by one political party.	49	55.1	55.7	95.5
D.) It creates specific criteria for gaining citizenship.	4	4.5	4.5	100.0
Total	88	98.9	100.0	
Missing System	1	1.1		
Total	89	100.0		
Item # 43	Item Difficulty P-value = .55	Item Discrimination P-value = .198	Recommendation Remove	

Q48: The primary purpose of the Bill of Rights in the U.S. Constitution is to				
	Frequency	Percent	Valid Percent	Cumulative Percent
A.) limit the power of the President.	2	2.2	2.2	2.2
B.) protect states' rights.	1	1.1	1.1	3.4
C.) protect the rights of individuals.	84	94.4	94.4	97.8
D.) encourage the practice of judicial review.	2	2.2	2.2	100.0
Total	89	100.0	100.0	
Item #48	Item Difficulty P-value = .94	Item Discrimination P-value = .65	Recommendation Remove	

Q49: You are an active member of civil society every time you				
	Frequency	Percent	Valid Percent	Cumulative Percent
A.) pay your taxes.	11	12.4	12.4	12.4
B.) vote.	59	66.3	66.3	78.7
C.) join a group.	19	21.3	21.3	100.0
D. enlist in the army				
Total	89	100.0	100.0	
Item # 49	Item Difficulty P-value = .21	Item Discrimination P-value= .18	Recommendation Remove	

Q53: The most recently developed method of nominating presidential candidates is				
	Frequency	Percent	Valid Percent	Cumulative Percent
A.) the caucus.	18	20.2	20.2	20.2
B.) the convention.	17	19.1	19.1	39.3
C.) nomination by petition.	13	14.6	14.6	53.9
D.) a direct primary.	41	46.1	46.1	100.0
Total	89	100.0	100.0	
Item # 53	Item Difficulty P-value = .19	Item Discrimination P-value = .199	Recommendation Remove	

Q58: An example of a political right in a constitutional democracy is				
	Frequency	Percent	Valid Percent	Cumulative Percent
A.) freedom of religion.	13	14.6	14.6	14.6
B.) social security payments.	11	12.4	12.4	27.0
C.) protection of private property.	16	18.0	18.0	44.9
D.) freedom of speech.	49	55.1	55.1	100.0
Item # 58	Item Difficulty P-value = .55	Item Discrimination P-value = .201	Recommendation Remove	

Q61: In his book, Democracy in America, Alexis de Tocqueville said, 'An association for political, commercial or manufacturing purposes, or even for those of science or literature, is a powerful and enlightened member of the community . . . which, by defend

	Frequency	Percent	Valid Percent	Cumulative Percent
A.) market economy in a democracy.	21	23.6	23.6	23.6
B.) civil society in a democracy.	45	50.6	50.6	74.2
C.) political parties in a democracy.	10	11.2	11.2	85.4
D.) governmental organizations in a democracy.	13	14.6	14.6	100.0
Total	89	100.0	100.0	
Item # 61	Item Difficulty P-value = .50		Item Discrimination P-value = .206	Recommendation Remove

Q67: Which of the following is not a requirement to become a naturalized citizen of the United States?

	Frequency	Percent	Valid Percent	Cumulative Percent
A.) An age requirement of 18 years	32	36.0	36.0	36.0
B.) Ability to demonstrate good moral character	23	25.8	25.8	61.8
C.) Vocational knowledge and skills	20	22.5	22.5	84.3
D.) Knowledge of United States history	14	15.7	15.7	100.0
Total	89	100.0	100.0	
Item #67	Item Difficulty P-value = .23		Item Discrimination P-value = .136	Recommendation Remove

Q68: James Madison was considered the 'Father of the Constitution' because he					
		Frequenc y	Percent	Valid Percent	Cumulative Percent
A.) wrote the Declaration of Independence.		38	42.7	42.7	42.7
B.) was elected as the President of the United States.		6	6.7	6.7	49.4
C.) traveled over to Europe to study political systems.		10	11.2	11.2	60.7
<i>D.) was the most active delegate at the Philadelphia Convent</i>		35	39.3	39.3	100.0
Total		89	100.0	100.0	
Item #68	Item Difficulty P-value = .40	Item Discrimination P-value = -.02		Recommendation Remove	

Q70: Which of the following statements define those who are entitled to human rights?					
		Frequency	Percent	Valid Percent	Cumulative Percent
A.) All people regardless of their behavior		74	83.1	83.1	83.1
B.) People who respect other human beings		9	10.1	10.1	93.3
C.) People with human needs		5	5.6	5.6	98.9
D.) People who deserve humane treatment		1	1.1	1.1	100.0
Total		89	100.0	100.0	
Item # 68	Item Difficulty P-value = .40	Item Discrimination P-value = 0.2		Recommendation Remove	

Q73: Which of the following is one of the means that the federal government has used to promote equality of economic opportunity?				
	Frequency	Percent	Valid Percent	Cumulative Percent
A.) Levying poll taxes	13	14.6	14.6	14.6
B.) Affirmative action programs	33	37.1	37.1	51.7
C.) Establishing protective tariffs	39	43.8	43.8	95.5
D.) Setting term limits for elected officials	4	4.5	4.5	100.0
Total	89	100.0	100.0	
Item#73	Item Difficulty P-value = .37	Item Discrimination P-value = .182	Recommendation Remove	

Q76: The presence of vigorous nongovernmental organizations is considered to be an important aspect of a civil society. Why are non-government organizations so important?				
	Frequency	Percent	Valid Percent	Cumulative Percent
A.) They provide essential services that government is prevented from offering by law.	18	20.2	20.5	20.5
B.) They offer an outlet for citizens' civic virtue that is divorced in politics.	19	21.3	21.6	42.0
C.) They serve as countervailing forces against despotic tendencies in government.	20	22.5	22.7	64.8
D.) They help regulate society by providing outlets for citizen activism.	31	34.8	35.2	100.0
Total	88	98.9	100.0	
Missing System	1	1.1		
Total	89	100.0		
Item # 76	Item Difficulty P-value = .23	Item Discrimination P-value = .23	Recommendation Remove	

Q82: A republican form of government is				
	Frequency	Percent	Valid Percent	Cumulative Percent
A.) a leading political party.	22	24.7	25.3	25.3
B.) a direct form of participatory democracy	12	13.5	13.8	39.1
C.) a form of government modeled on ancient Greece.	10	11.2	11.5	50.6
D.) government with elected representatives responsible to the people	43	48.3	49.4	100.0
Total	87	97.8	100.0	
Missing System	2	2.2		
Total	89	100.0		
Item #82	Item Difficulty P-value = .28		Item Discrimination P-value = .94	
			Recommendation Remove	

Q86: The Bill of Rights				
	Frequency	Percent	Valid Percent	Cumulative Percent
A.) makes the Constitution more like the Human Declaration o	25	28.1	28.4	28.4
B.) tests whether the amendment process works to protect rig	7	7.9	8.0	36.4
C.) limits the constitutional powers of the federal government	33	37.1	37.5	73.9
D.) responds to the will of the people.	23	25.8	26.1	100.0
Total	88	98.9	100.0	
Missing System	1	1.1		
Total	89	100.0		
Item # 86	Item Difficulty P-value = .28		Item Discrimination P-value=-.43	
			Recommendation Remove	

Q89: Every market economy must make all the following basic economic decisions EXCEPT:

	Frequency	Percent	Valid Percent	Cumulative Percent
A.) What goods and services to produce.	13	14.6	14.6	14.6
B.) How to produce goods and services.	12	13.5	13.5	28.1
C.) Who will get goods and services.	24	27.0	27.0	55.1
<i>D.) How people can share goods and services equally.</i>	40	44.9	44.9	100.0
Total	89	100.0	100.0	
Item # 89	Item Difficulty P-value = .45		Item Discrimination P-value = .297	
		Recommendation Remove		

Q91: According to the Preamble, which of the following is not mentioned as a reason for establishing the U. S. Constitution?

	Frequency	Percent	Valid Percent	Cumulative Percent
A.) Promoting the general welfare.	21	23.6	23.6	23.6
B.) Establishing justice.	18	20.2	20.2	43.8
<i>C.) Guaranteeing the rights to life, liberty, and the pursuit of happiness</i>	19	21.3	21.3	65.2
D.) Ensuring domestic tranquility.	31	34.8	34.8	100.0
Total	89	100.0	100.0	
Item # 91	Item Difficulty P-value = .21		Item Discrimination P-value = .118	
		Recommendation Remove		

Q92: All of the following are major purposes of civil society EXCEPT:				
	Frequency	Percent	Valid Percent	Cumulative Percent
A.) Limiting government power	14	15.7	15.7	15.7
B.) Pluralism	48	53.9	53.9	69.7
C.) Citizen participation	11	12.4	12.4	82.0
D.) Socialism	16	18.0	18.0	100.0
Total	89	100.0	100.0	
Item #92	Item Difficulty P-value = .18	Item Discrimination P-value = .220	Recommendation Remove	

Q95: An essential characteristic of a representative democracy is				
	Frequency	Percent	Valid Percent	Cumulative Percent
A.) unlimited majority rule.	11	12.4	12.4	12.4
B.) enactment of laws through referendum.	22	24.7	24.7	37.1
C.) two or more political parties.	43	48.3	48.3	85.4
D.) a bicameral legislature.	13	14.6	14.6	100.0
Total	89	100.0	100.0	
Item # 95	Item Difficulty P-value = .48	Item Discrimination P-value= .180	Recommendation Remove	

Appendix G:

Civic Knowledge Inventory 2011



Retained Test Items: Civic Knowledge Inventory of Elementary Teachers

Thank you for volunteering to complete this inventory of important civic concepts. You are one of approximately 100 college seniors participating in the preliminary testing of the CKI. Your instructor is offering extra-credit for the completion of this exam. Please request the exact extra credit details from your instructor.

The results from this inventory will assist colleges of education and school districts to better meet the professional needs of teachers.

Your responses on this inventory will remain confidential and your name will never be linked to individual results. The Office of Educational Innovation and Evaluation at Kansas State University is administering this inventory on-line. This test is not timed. However, it is estimated to take about 50 minutes. Your submission of a completed inventory as directed indicates your agreement to the conditions of this study. You may stop at any time if you change your mind regarding your participation.

Participants are invited to view a summary of the preliminary test findings at the KSU College of Education website. We thank you again for your time and support of this important work. Additional questions or concerns can be directed to Lisa Bietau bietau@ksu.edu or (785)

341-7734. Please click on the Web address (URL) below to complete and submit your completed survey. <https://surveys.ksu.edu>

This Survey URL is for your use only. It cannot be used by anyone else. If you cannot click on the Web address, please copy the underlined text and paste it into the address field of your Web browser. If you experience any difficulties please contact Technical Support at (800) 865-6143 or 532-7722, email: help@surveys.ksu.edu



Civic Knowledge Inventory for Elementary Teachers (2009)

Click on the box next to each question to answer.

Participant Background Information

1. Teacher certification area: ?
2. Area of concentration: ?
3. Grade level preference: ?
4. Years of teaching experience: ?
5. Age: ?
6. Gender: ?
7. Which statement best describes your voting record: ?
8. List civic or community organizations you currently a member: ?
9. Indicate the number of high school social science classes you have completed:

0 Civics and Government

0 American History

0 Economics

0 Geography

0 List advanced or elective classes here:

10. Please click on the box next to the college-level social science courses you have completed or ones in which you are currently enrolled:

11. History

- ☐ United States History I (to 1877)
- ☐ United States History II (from 1877)
- ☐ Modern US History (Post WWII)
- ☐ Western Civilization I
- ☐ World History I
- ☐ Western Civilization II
- ☐ World History II
- ☐ Other or advanced courses:

12. Economics

- ☐ Macroeconomics
- ☐ Microeconomics
- ☐ Introduction to Economics

Other or advanced courses:

13. Political Science

- ☐ Introduction to American and State Government
- ☐ U.S. Politics
- ☐ World Politics

Other or advanced courses:

14. Psychology

☐ Intro to Psychology

Other or advanced courses:

15. Sociology

☐ Intro to Sociology

Other or advanced courses:

16. Anthropology

☐ Intro to Anthropology

Other or advanced courses:

Please mark the scale below to indicate your level of confidence in teaching the following concepts:

17. Constitutionalism

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

low

high

18. Representative Democracy

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

low

high

19. Citizenship

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

low

high

20. Civil Society

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

low

high

21. Human Rights

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

low

high

22. Examples of Non-Democracy

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

low

high

23. Market Economy

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

low

high

CKI Multiple Choice Questions (2009):

Using the drop down box next to each item, select the best response.

24. When the private activities of individuals have the potential to create harm to others economists often call for government to step in with legislation or regulation. All but one of the following examples might call for a measure of government regulation. Which is the exception?
- A. A B C Pharmaceutical Corporation develops a new drug to combat arthritis.
 - B. A company wishes to purchase land next to a residential neighborhood to expand its parking lot.
 - C. An individual wishes to start private practice as a medical doctor.
 - D. A company chooses to relocate to a larger facility.
25. In a representative democracy citizens have the right to which of the following:
- A. free, fair and regularly scheduled elections
 - B. economic justice
 - C. public education
 - D. all forms of personal expression
26. Due process is based on the principle that
- A. government officials must follow the law.
 - B. police officers must have the power to enforce the law.
 - C. citizens' rights are more important than common good.
 - D. criminal justice must be financially responsible.

27. Representative democracy is based on the principle of
- A. popular sovereignty.
 - B. rule of law .
 - C. equality of justice.
 - D. due process of law.
28. The founding fathers believed the separation of powers was important to
- A. prevent the abuse of power.
 - B. make the government more responsible.
 - C. provide for greater voting rights.
 - D. allow for greater economic equity.
29. What do citizens of a constitutional democracy have in common?
- A. civic identity
 - B. political party identity
 - C. equal political power
 - D. equal civic competence
30. Every four years citizens vote for their representatives in government. Which of the following statements from the Declaration of Independence best reflects this principle?
- A. “among these [rights] are Life, Liberty, and the pursuit of Happiness
 - B. “all men are created equal”
 - C. “deriving their just powers from the consent of the governed [people]”

D. “they are endowed by their Creator with certain inalienable rights”

31. Which form of dissent pioneered by Gandhi in India has also been used in the U.S. and other countries to protest injustice?

- A. obtaining foreign aid
- B. violent revolution
- C. civil action
- D. non-violent civil disobedience

32. An essential characteristic of a market economy is

- A. the right of individuals to make economic choices.
- B. government control of the market.
- C. equal distribution of economic capital.
- D. the right of individuals to become wealthy through the stock market.

33. The term “tyranny” refers to a

- A. strong central government.
- B. powerful monarchy.
- C. government that abuses its powers.
- D. government controlled by terrorists.

34. “I fear three newspapers more than a hundred bayonets.” Napoleon Bonaparte (c. 1800)

This statement emphasizes the importance of

- A. the right to bear arms.
- B. freedom of expression.
- C. judicial restraint.

D. civil disobedience.

35. Freedom of exchange, protection of private property, and freedom of individual economic opportunity are all essential components of

- A. a command economy.
- B. a traditional economy.
- C. a market economy.
- D. a globalized economy.

36. “As citizens of this democracy, you are the rulers and the ruled, the lawgivers and the law-abiding, and the beginning and the end.” Adlai Stevenson (c. 1956) This statement addresses the principle of

- A. equal protection.
- B. habeas corpus.
- C. popular sovereignty.
- D. civil rights.

37. An oligarchy, an aristocracy and a theocracy are all examples of

- A. rule by a few.
- B. rule by one.
- C. rule by many.
- D. rule by all.

38. All of the countries in the following list are examples of a constitutional democracy

EXCEPT:

- A. Islamic Republic of Iran
- B. United Kingdom of Great Britain
- C. Federal Republic of Germany
- D. The Czech Republic

39. Which of the following forms of government is most restrictive?

- A. monarch
- B. federalism
- C. dictatorship
- D. republic

40. A form of government ruled by one authoritarian party that centralizes economic planning and eliminates the private ownership of property is called

- A. communism.
- B. socialism.
- C. fascism.
- D. constitutional monarchy.

41. Which of the following provisions of the U.S. Constitution is also a major characteristic of the rule of law?
- A. freedom of speech
 - B. freedom of religion
 - C. a well regulated militia
 - D. equal protection under the law
42. If a police officer in the U.S. makes an arrest and does not inform the suspect of his or her rights, which constitutional principle is the police officer violating?
- A. eminent domain
 - B. equal protection
 - C. due process
 - D. unreasonable search
43. You exercise a right reserved to citizens every time you
- A. speak your mind.
 - B. get a fair trial.
 - C. receive equal protection of the laws.
 - D. vote in public elections.

44. Human rights can be divided into political/public rights and personal/private rights. Which of the following is a political/public right?

- A. political participation beyond voting
- B. freedom of conscience
- C. private property rights
- D. right to be left alone (privacy)

45. A representative democracy is a form of government where

- A. frequent and fair elections allow citizens to vote on government policies.
- B. two or more political parties are actively functioning to influence government policies.
- C. government officials are duty sworn to represent all of their constituents.
- D. citizens elect their representatives in order to influence the actions of government.

46. Which principle did the Framers use to achieve ALL of the following goals “to form a more perfect union, establish justice, insure domestic tranquility, provide for the common defense, promote the general welfare, and secure the blessings of liberty”?

- A. representative democracy
- B. constitutionalism
- C. citizenship
- D. civil society

47. Which of the following constitutional principles was devised as a compromise between a powerful central government and a loosely organized confederation of states?

- A. federalism
- B. liberalism
- C. constitutionalism
- D. rule of law

48. The Bill of Rights in the U. S. Constitution specifically protects all of the following EXCEPT:

- A. right to an education
- B. right not to self-incriminate
- C. right to due process of law
- D. right to free speech

49. Jason found that he could not open a new bar in his local community because liquor licenses were limited by the local government. Which aspect of a free market economy is demonstrated by this condition?

- A. equality of economic opportunity
- B. productive use of capital
- C. economic rewards based on merit
- D. business regulation by government

50. Which of the following is a right of citizenship that is only guaranteed to natural or naturalized citizens?

- A. the right to a trial by jury
- B. access to public parks
- C. freedom of association
- D. possession of a US passport

51. The teaching of “creationism” in public schools has been restricted because

- A. the majority of citizens don’t believe in it.
- B. it is not based upon valid scientific evidence.
- C. it attempts to “establish” religion in violation of the First Amendment.
- D. it is too controversial.

52. Which of the following conditions are thought to be most necessary in a well functioning market economy?

- A. large numbers of producers and consumers freely entering and leaving markets
- B. government regulations protecting businesses and jobs
- C. government production of many essential goods and services
- D. no government interference in the economic activity

53. Under the U.S. Constitution, the power to tax at the federal level belongs to the

- A. President.
- B. Department of the Treasury.

- C. Supreme Court.
- D. Congress.

54. The laws of supply and demand

- A. set the price that all producers must charge.
- B. determine market price.
- C. work best in a command economy.
- D. cancel each other out.

55. Popular sovereignty is the idea that

- A. unpopular elected officials should be impeached.
- B. people should be more powerful than government.
- C. people serve as the source of authority for government.
- D. people influence government through participation in political parties.

56. Former U.S. Congressman Lee Hamilton has suggested that the U.S. Congress is no longer the powerful and influential institution that it once was and that it does not exercise the authority that it should in comparison to other branches of the government. He is apparently concerned about which of the following issues...

- A. social justice
- B. checks and balances
- C. due process
- D. independent judiciary

57. “Where everyman is...participator in the government of affairs, not merely at an election one day in the year but every day...he will let the heart be torn out of his body sooner than his power be wrested from him by a Caesar or a Bonaparte.”

--Thomas Jefferson (1816)

Jefferson’s main point here is that...

- A. Elections must be held regularly for democracy to function well.
 - B. The active participation of citizens is necessary to avoid totalitarian rule.
 - C. Citizens should be willing to sacrifice for their country
 - D. Individual liberty takes precedence over the common good.
58. The *primary* standard by which a representative democracy is distinguished from a non-democracy is
- A. voting by the people for the candidates of the ruling political party.
 - B. accountability of government officials to the most popular political party.
 - C. voting by citizens in free, fair, and competitive elections of representatives.
 - D. accountability of government officials to opinions of the majority of the people.
59. Which type of economic system is most compatible with a constitutional democracy?
- A. democratic socialism
 - B. monopoly capitalism
 - C. command economy
 - D. market economy
60. In the United States, voting, serving on a jury, paying taxes, and obeying laws are

- A. guaranteed rights of citizenship.
- B. responsibilities of citizenship.
- C. civic virtues.
- D. benefits of citizenship.

61. In a representative democracy, there is

- A. equality of power among the people.
- B. popular sovereignty.
- C. popular policy making.
- D. equality of living standards.

62. Naturalized citizens

- A. do not have the right to vote.
- B. are required to learn to speak English.
- C. cannot serve as president or vice president of the United States.
- D. were born on United States soil.

63. Which of the following is *not* traditionally a function of a democratic government?

- A. to establish the rule of law
- B. to establish a specific religion
- C. to tax for the common good
- D. to protect civil liberties

64. All of the following are rights reserved exclusively to citizens EXCEPT:

- A. suffrage

B. franchise

C. membership in a political party

D. jury service

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