



Center for
Civic Education

Developing Students' Capacity for Democratic Engagement: Implementing the Integrated Civic Competencies Framework

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ABSTRACT

To successfully prepare students for democratic engagement, civic education involves the interplay of knowledge and skills. The Integrated Civic Competencies Framework (ICCF) is a heuristic tool designed to guide teachers in promoting students' civic learning that specifies the interplay of these competencies. The Center for Civic Education's Integrated Civic Competencies (ICC) program provides middle and high school students with professional development so that they can implement the Project Citizen curriculum in their classes. A pilot study conducted by the Civic Education Research Lab (CERL) at Georgetown University found that students who were taught Project Citizen by teachers participating in the ICC and guided by the ICCF made statistically significant gains in civic knowledge and skills related to taking action on public policies, effective communication, civil discourse, and teamwork. Further analysis addressed the extent to which students' acquisition of civic knowledge and civic skills was related to aspects of democratic engagement. The correspondence between civic skills and civic identity formation, disposition to engage, and current community engagement was notably greater than for civic knowledge. The findings point to the need for further research focused on unpacking the complex interrelationships between civic knowledge, skills, dispositions, and democratic engagement. We discuss the implications of this research for instructional practices, curriculum design, and assessment policy.

Introduction

Civic education that imparts knowledge of government and politics while simultaneously promoting civic competencies has the greatest potential to develop strong proclivities in students for democratic engagement (Halverson, Tucker, and Smith, 2024). However, classroom civics instruction typically is more focused on knowledge-building and discussion-based activities as opposed to participatory elements of learning or community engagement (Sandra Day O'Connor Institute, 2024; Chu and Keskin, 2026). A strong foundation in civic knowledge is necessary for engagement, but it is not sufficient (Van Camp and Baugh, 2016). The myriad challenges to democracy in the current era warrant increased emphasis on classroom teaching that seamlessly promotes knowledge of government and politics, the development of civic dispositions, and the acquisition of participatory skills.

The Integrated Civic Competencies Framework (ICCF) specifies how civic identities and skills can be readily integrated into instruction to build students' democratic capacity and engagement. We developed the ICCF as a heuristic tool to enhance students' learning of knowledge, dispositions, and skills across the civics curriculum. In this study, we specify the elements of the ICCF and examine how the framework can guide teachers in preparing students for democratic engagement. We explore the ways that the ICCF works in practice through the Center for Civic Education's Project Citizen, a well-established project-based learning (PBL) curriculum. Civic education can more successfully achieve positive civic outcomes when educators embrace participatory, student-led approaches, like PBL, where students design, develop, and construct hands-on solutions to community problems.

The ICCF was put into practice through the Center's Integrated Civic Competencies (ICC) program.¹ The Center provided middle and high school teachers with professional development (PD) that prepared them to implement Project Citizen with their students while intentionally integrating high-leverage instructional strategies specific to civic competency development. The Civic Education Research Lab (CERL) at Georgetown University conducted studies of teachers and students participating in the ICC. This pilot study analyzed student data collected during the 2025-26 academic year.

The first stage of this research assesses the effectiveness of the Project Citizen curriculum in imparting civic knowledge and skills to middle and high school students. We examine the extent to which Project Citizen conveys core knowledge of the American political system and the public policy process. We evaluate students' development of skills related to taking action to solve community problems, communication, civil discourse, and teamwork. For many schools, the top priority for civic education is students' learning of discrete foundational facts, while attention to their development of civic skills is a subordinate objective or absent (Hillygus and Holbein, 2023; Sims, Rainey, and Chu, 2025). Project Citizen is designed to simultaneously convey knowledge and skills, which are both important to building students' capacity for democratic engagement. Assumptions about the emphasis that should be placed on knowledge compared to skills differ within the ranks of civic educators, political practitioners, and social

¹ The contents of this paper were developed under a grant from the U.S. Department of Education, Education and Innovation Research (EIR) Program. However, those contents do not necessarily represent the policy of the U.S. Department of Education, and federal government endorsement should not be assumed.

scientists. The second stage of this study confronts this issue at the heart of civic learning: To what extent are civic knowledge and civic skills related to democratic engagement? We explore the relationship of civic knowledge and skills to students' identification with their community, dispositions to engage, and current community engagement. We address the following research questions: To what extent are civic knowledge and civic skills related? How strongly is civic knowledge related to civic engagement? How strongly are civic skills related to civic engagement?

The Integrated Civic Competencies Framework

Social-emotional learning (SEL) has emerged as a core construct in education over the past quarter century. The Collaborative for Academic, Social, and Emotional Learning (CASEL) defines SEL as “the process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions” (CASEL, n.d.: online). SEL focuses on students developing life skills, emotional intelligence, and goal-setting capacities (Kaspar and Massey, 2022), all of which are essential to civic learning. CASEL’s framework is based on fostering knowledge, skills, and attitudes across the five areas of self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. Much progress has been made in the articulation of and specification of general SEL concepts and indicators measuring students’ acquisition of the CASEL 5 competencies (see Zieher, et al., 2024). However, Harvard’s EASEL Lab makes the compelling argument that as the call for SEL to be integrated into K-12 classrooms has proliferated, the need for specification of the language, terminology, and meaning must be clear and carefully aligned with curricular domains and related skill sets (EASEL, 2022). Not one of the over forty established SEL frameworks identified by EASEL’s comprehensive inventory was developed for the civics domain (<http://exploresel.gse.harvard.edu/>).

We created the Integrated Civic Competencies Framework as a comprehensive inventory of SEL-aligned civic aptitudes. Competencies related to the CASEL 5 have obvious associations with civic learning, which we specify in the framework. Further, the ICCF defines civic competencies that extend or are not readily encompassed by the CASEL constructs, including self-efficacy, agency, and civic engagement. (See Figure 1.)

Figure 1
The Integrated Civic Competencies Framework
Definitions and Alignment with the CASEL 5 SEL Constructs

Civic Competency	Definition	Alignment with CASEL 5
Civic Identity Integration	Students have explored their civic identity and can situate themselves in communities that support the next steps in their life-long civic growth.	Self-Awareness
Self-Efficacy	Students believe that they have the personal capacity to influence political outcomes.	Self-Awareness

Agency	Students gain the capacity to act to intentionally influence political issues, decisions, and events. Agency can be individual or collective, where people work together to influence politics and society.	Self-Awareness
Problem-Solving	Students use tools of civics disciplines flexibly and fluently to define problems, organize and analyze information and context, find and apply solutions, and evaluate impact.	Self-Management
Active & Empathetic Listening	Students cultivate curious and creative mindsets by listening and demonstrating openness to others' views and experiences and exploring increasingly complex questions.	Self-Management
Self-Regulation	Students set challenging goals for their civic learning and development, identify resources, track and manage progress, and navigate challenges.	Self-Management
Empathy	Students successfully value and prioritize experiences and perspectives of others and account for the diversity of such in their decision-making and advocacy.	Social & Cultural Awareness
Teamwork and Collective Responsibility	Students lead and work in high-functioning teams; they seek, leverage, and contribute diverse perspectives and different types of expertise to achieve collective goals.	Relationship Skills
Collaboration	Students exchange experiences and ideas as they join with others to address public issues in their communities, finding common ground while working together.	Relationship Skills
Communication and Civil Discourse	Students refine their civic expression skills by successfully building shared meaning with others from diverse backgrounds and viewpoints through strategic choices in language, medium of expression, and lens for interpretation.	Relationship Skills
Advocacy	Students strategically advocate for themselves and others in local, national, and global contexts, demonstrating perspective and empathy, and access relevant and timely data.	Social & Cultural Awareness
Civic Decision Making	Students develop a multifaceted and dynamic understanding of the self as belonging to and responsible for a community with full consideration of democratic principles.	Responsible Decision-Making
Evaluation and Reflection	Students use critical thinking and reflection to connect knowledge, experiences, actions, and emotions to civic goals and values.	Responsible Decision-Making
Civic Engagement	Students actively participate in political, social, or community activities to address issues and problems and promote the common good.	Responsible Decision-Making

The ICCF specifies civic identity integration, problem-solving, active and empathetic listening, self-regulation, empathy, and evaluation and reflection as civic competencies that are individual-oriented. Civic identity integration is a domain of self-awareness where students explore their sense of belonging, responsibility, and role in their communities. They are able to situate themselves in communities that support the next steps in their lifelong civic growth. Students' understanding of the issues and challenges facing their community is a central aspect

of civic identity integration. General referents of self-management include students exhibiting self-discipline and self-motivation, setting personal and collective goals, and demonstrating personal and collective agency (Hamilton and Parsi, 2022). The ICCF specifies the domains of problem-solving, active and empathetic listening, and self-regulation as they pertain to self-management in the civic context. Students use tools of civics disciplines flexibly and fluently to define problems, organize and analyze information and context, find and apply solutions, and evaluate impact. They cultivate listening skills and demonstrate openness to others' views and experiences as they explore increasingly complex questions. They demonstrate self-regulation by setting challenging goals, identifying resources, tracking and managing their progress, and navigating challenges. Social and cultural awareness encompasses considering others' perspectives, identifying diverse social norms, and understanding the influence of organizations and systems on civic behavior (Hamilton and Parsi, 2022).

The ICCF domains related to social and cultural awareness are advocacy and empathy. Students strategically advocate for themselves and others in local, national, and global contexts. They access relevant data and conduct research so that they can make informed arguments as they advocate for positive change. Civic empathy encourages students to value and prioritize the diverse experiences of others and account for them in their decision-making and advocacy. The ICCF domains of evaluation and reflection require students to use critical thinking and reflection to connect knowledge, experiences, actions, and emotions to civic goals and values.

Relationship skills are essential for successful community engagement, and they are integral to the ICCF. Teamwork, collective responsibility, and collaboration relate to the social aspects of civic competencies. Students lead and work in high-functioning teams where they leverage diverse perspectives and use their expertise to achieve collective goals. They collaborate by joining with others to address public issues in their communities and find common ground while working together. The ICCF domain of communication and civil discourse specifies how students refine their civic expression skills. They interact with peers from diverse backgrounds to build shared meaning and make strategic choices about language and medium of expression as they examine issues through an interpretive lens.

Advocacy, communication and civil discourse, and civic decision-making pertain to the societal dimensions of civic competencies. These elements of the ICCF are aligned with CASEL's responsible decision-making domain. Students engage in advocacy as they explore solutions for personal and societal problems. They learn how to make reasoned judgments after analyzing evidence. They anticipate and evaluate the consequences of their actions. Civic decision-making occurs when students develop dynamic understandings of the self as belonging to and being responsible for a community with full consideration of democratic principles.

Civic Project-Based Learning

The ability of SEL to impart positive civic outcomes is enhanced when students engage in more participatory, student-led approaches to civic education. Project-based learning (PBL), where students design, develop, and construct hands-on solutions to a problem (Boston University Center for Teaching & Learning, 2025), is a ready-made context for SEL integration. As Baines, et al. assert, "PBL can be a powerful strategy for weaving social and emotional

learning into core instruction and empowering students to learn through projects” (2021: 6). Combining PBL and SEL has been shown to enrich students’ experience with projects as they are empowered to take ownership of their work (Almulla, 2020). Students gain civic agency, efficacy, and empathy as they work cooperatively and collaboratively on a problem. They develop active listening, democratic deliberation, and public speaking skills (Nachtigal, Zetlin, and Shen, 2024). As they use their knowledge and skills to achieve concrete results, students gain the capacity to make decisions and take an active role in their communities and government. They can become motivated to engage beyond the classroom. PBL provides pathways to participation by connecting students to people, including teachers and community members, who model civically engaged behavior and connect them to organizations that offer continued mentorship, structure, and resources (Weissberg, et al., 2015).

PBL allows students to develop civic competencies in their own way at their own speed. Different mechanisms for engagement will be relevant to different students. Experiential civic learning through student-led civics curricula allows students to take action on personally relevant issues in combination with reflection activities. Teachers can empower students to view themselves as changemakers. PBL can be justice-oriented, especially when used in conjunction with well-conceived curricular interventions, like Project Citizen. It is also suited to diverse learners, and has the potential to mitigate educational, social, and economic inequities that exist between student groups (Baines, et al., 2021). The PBL approach can be tailored for underserved populations, including students of color, English learners, low-income students, and students who struggle academically to achieve successful outcomes (Owen, 2024a; Owen, 2024b; Owen, 2024c).

Project Citizen

The Center’s Project Citizen is a PBL curricular program for upper elementary, middle, secondary, and post-secondary students and adult groups that promotes competent and responsible participation in local and state government. The program’s goals are to develop a commitment to active citizenship by providing practical experience that fosters civic efficacy as students monitor and influence public policy. In the process, students develop support for democratic values and principles, tolerance, and political efficacy. Project Citizen helps young people understand why they should participate in community affairs. It is a valuable instructional tool, whose primary purpose is to prepare a new generation of citizens to be competent, confident, and committed to civic participation. Consistent with the ICCF, the curriculum develops students’ civic knowledge, enhances their skills, and deepens their understanding of how citizens and leaders can work together to improve their communities.

Project Citizen has been used in the United States and international contexts. The curriculum typically involves an entire class of students or members of youth or adult groups in a series of structured, cooperative-learning activities guided by teachers, organization leaders, and adult volunteers. The class or group identifies a problem in their school or community. Working in cooperative teams, students research the problem and investigate alternatives for solving it. They learn how government works as they interact with public officials and issue advocates. Participating teachers and organizational leaders are encouraged to hold a showcase hearing as the culminating activity. Stakeholders and policy-makers with authority over the

problem are invited to the showcase to provide feedback to the students. Each step in the process is aligned with ICCF target domains. (See Figure 2.)

Figure 2
Project Citizen Process Steps and ICCF Target Domains

Project Citizen Process Step	Target Domains: Civic Competencies
Step 1: Identify problems or issues in your school or community that can be dealt with by public policy	Identity Integration Civic Decision Making
Step 2: Select a problem for the class to study	Civic Decision-Making Problem-Solving
Step 3: Working in teams, gather information/evidence and conduct research on the problem	Problem-Solving Teamwork and Collective Responsibility Active & Empathetic Listening
Step 4: Explore alternative solutions to the problem and develop a portfolio to present your research	Problem-Solving Self-Regulation Teamwork and Collective Responsibility Collaboration
Step 5: Present your portfolio in a simulated public hearing	Identity Integration Advocacy Empathy Teamwork and Collective Responsibility Collaboration Communication and Civil Discourse
Step 6: Reflect on your experience	Identity Integration Self-Regulation Evaluation and Reflection Civic Decision Making

The ICCF unites the steps of Project Citizen with the Gold Standard PBL elements of authenticity, challenging problem or question, sustained inquiry, student voice and choice, critique and revision, public product, and reflection. (See www.pblworks.org/what-is-pbl/gold-standard-project-design.) As students authentically engage in their projects, they develop a deeper connection to and understanding of their role in community and civic life. Students achieve self-awareness through authenticity, as they engage in projects that connect to their personal interests, identities, and communities. Students practice civic identity integration when they explore their civic roles and bridge the gap between school, home, and community. The competency of self-management is realized as students determine a meaningful problem or question to investigate and solve. They can develop a problem-solving disposition through practicing sustained inquiry, defining and investigating complex issues, asking questions, finding and using resources, and developing solutions. This practice fosters critical thinking, analysis, and the development of solutions aligned with civic learning goals. Self-management is also achieved through student voice and choice. Students engage in active and empathetic listening when they have input over many aspects of the project and need to make collective decisions with consideration of others' viewpoints as they evaluate their own positions. They practice self-regulation in how they give and receive feedback to improve their project and manage their progress towards meeting their civic learning and development goals.

Social and cultural awareness is related to civic PBL through the production of a public product. When students share their finished project, they practice advocacy and empathy. They present and discuss their ideas in a public context and represent themselves and others. Relationship skills are developed through PBL by student voice and choice. Students effectively practice teamwork and collective responsibility as well as collaboration as they leverage their individual strengths. They welcome diverse perspectives on a team and reach joint goals through mutual respect and shared responsibilities. They demonstrate competencies of civil discourse and communication to effectively connect with their audiences through their Project Citizen showcases. Finally, students engage in responsible decision-making and deepen their learning by evaluating and reflecting upon their project experience. They solidify what they have learned and make connections beyond the project. They take ownership of their work and set new goals for continued learning.

The Center's ICC PD program prepares middle and high school teachers to use Project Citizen with their students. Scholars provide teachers with knowledge of the U.S. system of government and public policy process that they will put into practice with their classes. The Center's pedagogy experts familiarize teachers with the Project Citizen curriculum and demonstrate best practices for implementing the program. At five-day summer institutes, teachers have the opportunity to take part in an abbreviated version of Project Citizen themselves.

Hypotheses

Teachers in the ICC pilot study implemented Project Citizen with their classes as they took part in the PD program. The first section of this research evaluates the effectiveness of Project Citizen in producing positive student outcomes. We test the following hypotheses:

H₁: Students' civic knowledge will improve significantly after their Project Citizen experience.

H₂: Students' civic skills will improve significantly after their Project Citizen experience.

Knowledge, Skills, and Civic Engagement

In this study, we conceptualize democratic engagement broadly to encompass political participation, civic participation, and psychological engagement, acknowledging that these terms also have been defined variously. This perspective recognizes the interrelationship between these constructs which is meaningful for an integrative approach to civic learning (Lynggaard and Boje, 2025; Barrett and Brunton-Smith, 2014; Halverson, Tucker, and Smith, 2025; Alscher, Graf, and McElvany, 2026). Political participation constitutes activity that has the intent or effect of influencing government, public policy, or leadership (Theocharis, 2015; Verba and Nie, 1972). Civic participation has been defined as "voluntary activity focused on helping others, achieving a public good, or solving a community problem, including work undertaken either alone or in cooperation with others in order to effect change" (Barrett and Brunton-Smith, 2014: 6). This definition is most closely aligned with the core mission of Project Citizen, but it does not account for the entirety of the program's outcomes. Finally, engagement has been conceptualized

as having a substantial psychological component. It includes knowing about, being interested in, paying attention to, and forming beliefs and opinions about government and political affairs (Pancer, 2015). It also includes civic identity integration, specified in the ICCF as both a personal sense of belonging and an affinity for a group or community (Jackson and Hogg, 2010).

The requirement of an informed populace is a cornerstone of American democracy. Civic knowledge encompasses a vast amount of information pertinent to the foundations and institutions of government, political processes, public policies, rules, and laws. Knowledgeable citizens are cognizant of government institutions and procedures and how they work (Delli Carpini and Keeter, 1996). They understand their role in a democratic policy and know their rights and responsibilities (Branson and Quigley, 1998; Van Camp and Baugh, 2016). That knowledge is important to a thriving democracy is undeniable, yet its relationship to democratic engagement remains contested. The extent to which knowledge is a (or the) dominant driver of democratic engagement has been a subject of debate.

Americans' basic knowledge of government and politics has been subpar for decades (Delli Carpini and Keeter, 1996), a trend that has been corroborated by recent studies (Kleinberg and Lau, 2019; Healy, 2023; American Bar Association, 2025). Writing in 2010, Hochschild acknowledged the importance of an informed public, but observed that democracy has been maintained throughout the nation's history despite persistently low levels of political knowledge (Hochschild, 2010). Many Americans lack an understanding of the social values that underlie democratic structures and practices ((Schnaubelt, Kloos, and Begovich, 2025). Recent developments suggest that America's prolonged grace period, during which the public's civic illiteracy did not entirely undermine democratic institutions and practices may be expiring (Smith, 2025). Low levels of knowledge do not necessarily preclude political behavior, for better or worse. Citizens can miscalculate their levels of knowledge, which has consequences for democratic engagement. People with a false sense of their political acumen may participate in ways that are uninformed, reactive, and group-based (Hochschild, 2010). Conversely, highly knowledgeable individuals may not have the confidence to engage (Jansa, Ringsmuth, and Smith, 2025) as they lack the requisite civic skills.

A prominent perspective assumes that knowledge is a building block, if not a necessary precondition, for civic engagement (Kleinberg and Lau, 2019; Galston, 2004; Delli Carpini and Keeter, 1996). This view aligns most closely with the psychological dimension of democratic engagement. People who possess knowledge of how the political system works as well as the requisite laws, rules, norms, and practices are equipped with the capacity to effectively participate in civic life (Niemi and Junn, 1998; Neimi, 2001; Galston, 2004; Campbell, 2006). People with higher levels of knowledge—whether actual or perceived—are more politically efficacious and can advocate for themselves and others (Finkel and Ernst, 2005; Galston, 2004; Brody, 1994; Youniss, 2011). Citizens need to acquire factual knowledge about politics to make decisions about candidates and issues. People with higher knowledge levels tend to hold more stable opinions and exhibit greater ideological constraint (Kleinberg, 2019). Lacking knowledge of how government institutions and processes work, people are not empowered to assess whether policies truly reflect the public interest. They are less likely to take advantage of opportunities afforded them by the government. Knowledge makes it possible for individuals to hold government accountable and to take meaningful action when they encounter injustice and unfairness (Delli, Carpini, and Keeter, 1996).

Knowledge alone is not enough to effectively galvanize people to engage. Instead, meaningful democratic engagement is achieved through the interplay of knowledge and civic competencies. Individuals must acquire the dispositions and practical skills necessary for informed and effective participation in civic life. Much civic education tends to focus more solidly on students' gaining discrete facts about government and politics than on knowledge as it relates to life in a democratic society (Schnaubelt, Kloos, and Begovich, 2025). Evidence suggests that engagement can lead to knowledge acquisition, as people become more interested in public affairs and are exposed to more information (Masyada, Spinale, and Waring, 2026). Further, the parameters of civic knowledge are ever-expanding. Fundamental knowledge encompasses an understanding of the structure and function of government institutions and processes as well as the rights, duties, and responsibilities of citizens. Today, the realm of civic knowledge is continually expanding to include comprehension of the interplay between technology and governance (California Learning Network, 2025).

A well-rounded civic education that intentionally integrates knowledge acquisition and the development of civic competencies has the greatest potential to foster an engaged public that prioritizes the common good (Hansen, et al., 2018). As Masyada, Spinale, and Waring, observe:

Knowledge is necessary for foundational purposes, but students need to practice doing democracy by learning how to become deliberative and collaborative for the purpose of democratic problem solving. When students think about their relationship with democracy, how to navigate it, and what they want to derive from it, reflective tendencies emerge, which in turn affect their political efficacy, civic skill development, and confidence in democratic institutions (Masyada, Spinale, and Waring, 2026:1).

Hypotheses

The ICCF provides a roadmap for seamlessly integrating knowledge, skills, and dispositions into civics instruction. The ICC program, which centers on the Project Citizen intervention, is uniquely positioned to examine the relationship of civic knowledge and skills to democratic engagement. Students simultaneously acquire factual information about government, politics, and the public policy process as they take action to solve a real-world problem in their community or school. They develop the capacity to communicate effectively and civilly, collaborate, and work as a team. We tested the following hypotheses to examine the intersection of knowledge and civic skills as they relate to democratic engagement:

H₃: Civic knowledge is positively related to democratic engagement.

H₄: Civic skills are positively related to democratic engagement.

H₅: Civic skills are more strongly related to democratic engagement than civic knowledge.

Data

A pilot study was conducted in the first year of the ICC (academic year 2025-26) with teachers in ten states (California, Connecticut, Delaware, Kansas, Kentucky, Maryland, Rhode Island, Tennessee, Virginia, and West Virginia). The study employed a pretest/posttest design.

Students took pretest surveys prior to participating in Project Citizen and posttests after they had completed the program. Teachers administered the surveys online during class time. The research protocol was reviewed by the Georgetown University Institutional Review Board (IRB) and was granted exemption to the submission (STUDY00009756).

Pilot study participants were recruited by the Center and its network of coordinators in the ten states. Students of thirty teachers participating in the ICC were included in this study. A total of 985 students completed the research requirements; 431 were enrolled in middle school (grades 6-8) and 553 in high school (grades 9-12). The sample characteristics for middle and high school students were mostly similar. (See Table 1.) The percentage of female students was greater for high school. A higher number of White students were in the middle school sample.

Table 1
Student Demographics

	All Students	Middle School	High School
Female	55%	47%	53%
Male	45%	51%	45%
Another Gender	2%	2%	2%
AAPI	6%	3%	9%
Black	17%	19%	17%
Latine	15%	10%	18%
White	55%	60%	50%
Mixed Race	7%	8%	6%

Measures

Project Citizen seeks to advance students' civic knowledge through active learning. Civic knowledge was based on ten multiple choice items relating to general knowledge of the public policy process, federalism, branches of the U.S. government, departments and agencies involved in the policy process, interest groups, and nongovernmental organizations. While these content areas are addressed by the Project Citizen curriculum, the items were not overly aligned with the intervention and were based on established measures with known reliability. Each item had four response categories and an "I'm not sure" option. One point was given for each correct item; no points were assigned for wrong answers or "I'm not sure" responses. The civic knowledge items were combined into pretest and posttest indexes that ranged from 0 to 10 points. The internal consistency reliability of the indexes based on Cronbach's α was .73 for the pretest and .83 for the posttest.²

The Project Citizen intervention is designed to impart skills that are essential for taking action on public policy issues. The study measured the extent to which students felt prepared to

²A possible limitation of this study is the small number of knowledge questions employed in the pilot research. The items focused on foundational knowledge of constitutional principles, government institutions, and the public policy process. A more extensive battery of knowledge items has been included on the student tests for the randomized controlled trials (RCT) currently being conducted in conjunction with the ICC.

take action to address a problem in their community. They were asked how prepared they were to: (1) identify issues and problems facing their community, (2) research a problem in their community, (3) use their science, math, or technology skills to address a problem, (4) develop a plan to work on a problem in their community, and (5) work with others to solve a problem in their community. The response categories were 1 not very prepared, 2 somewhat prepared, 3 very prepared. The items were combined to form a policy action skills index ranging from 1 to 11. The internal consistency reliability of the index (Cronbach's α) was .76 for the pretest and .79 for the posttest.

The ability to communicate and discuss public policy and societal issues is fundamental to becoming an engaged community member. Students who are invited to engage in meaningful discussions of current events and issues are more likely to participate in civic affairs later in life (Gould, et al., 2011). Three items measured students' propensity to engage in discussions: (1) I talk to my friends and classmates about current events, (2) I am comfortable speaking in front of a group, and (3) I am willing to share my views with others. The response categories were 1 rarely or never, 2 sometimes, 3 always. The items were combined into an additive communication skills index that ranged from 1 to 7. Cronbach's α was .62 for the pretest index and .68 for the posttest index.

Civil discourse skills convey the ability to engage in honest, respectful, and empathetic conversations about challenging topics (American Psychological Association, n.d.; Facing History & Ourselves, 2025). These skills were captured by four items: (1) I care about other people's points of view, (2) I allow others to share their opinions without interrupting them, (3) When others disagree with me, I respect their views, and (4) I get along well with people who are different from me. Students could respond 1 rarely or never, 2 sometimes, 3 always. Additive pretest and posttest civil discourse skills indices were created that ranged from 1 to 9. The index reliability (Cronbach's α) was .77 for both the pretest and posttest.

Project Citizen requires students to work collaboratively to identify, research, and solve a community problem. A teamwork index was created from four items: (1) When I work with others, I am most concerned about what is best for the team, (2) I work well with other students on projects, (3) It's important to arrive at an agreement or consensus when working with others, and (4) I am good at leading others to reach a goal. The response values were 1 rarely or never, 2 sometimes, 3 always. The teamwork index ranged from 1 to 9. Cronbach's α was .71 for the pretest and .69 for the posttest.

We employ measures representing three dimensions of democratic engagement. Students' ability to situate themselves within their community as valuable and active members is a central aspect of the personal infrastructure supporting engagement (Han and Dawson, 2025). The psychological dimension of engagement is represented by the ICCF's notion of civic identity integration. This construct was measured by students' agreement with the following statements: (1) I care a lot about my community, (2) Being a good citizen requires that you are active in your community, and (3) I feel that I am an important member of my community. The response categories were 1 disagree, 2 neither agree nor disagree, 3 agree. An additive civic identity integration index was constructed that ranged from 1 to 7. The pretest and posttest index reliabilities were both .66.

The civic dimension of engagement was measured by students' disposition to engage in their community. Three items tapped students' disposition to civic engagement: (1) I consider myself well-qualified to engage in my community, (2) When I am an adult, I plan on participating in community affairs, and (3) When I am eligible, I plan on voting in elections on a regular basis. The response options were 1 disagree, 2 neither agree nor disagree, 3 agree. The three items were combined in a disposition to engage index ranging from 1 to 7. The reliability for the pretest index was .66 and was .71 for the posttest.

Three items tapped students' current civic engagement: (1) How involved are you in your local community? Response options were 1 not very involved, 2 somewhat involved, 3 very involved, (2) How much attention do you pay to what's going on in your community? Response options were 1 not much, 2 some, 3 a lot, 4 a great deal, and (3) I would contact a public official if I was concerned about a problem in my community. Response options were 1 disagree, 2 neither agree nor disagree, 3 agree. The items were added to form a current engagement index ranging from 1 to 8. Cronbach's α was .58 for the pretest and .62 for the posttest.

Methods

The pretest-posttest design used in this study compared students' scores on civic knowledge, policy action skills, civil discourse skills, teamwork, and engagement before and after they were taught Project Citizen. Linear mixed models (LMMs) were employed to handle the hierarchical and repeated-measures structure of the data. The assumption of independence of observations may be compromised if students in a classroom are similar to one another but different from students in other classrooms (O'Dwyer and Parker, 2014; Ker, 2014). The dependent variable was the posttest score on the index for each construct. The fixed effects in the model measure the change in students' scores that can be attributed to time (pretest to posttest). The random effects estimate the variability specific to individual classrooms. The intraclass correlation coefficient (ICC) indicates the proportion of variance in the outcome measures that can be attributed to differences between classrooms relative to the total variance. It reflects how strongly students in the same classroom resemble one another relative to the dependent variable. The conditional ICC was reported as classroom clustering may be an issue, and is the only random factor in the model (Lovric, 2025).³ ICC values of .25 or greater indicate that a multilevel model is appropriate, as it can improve the accuracy of the parameter estimates (Powers, 2026). Nakagawa-Schielzeth pseudo R^2 measures were computed to provide estimates of the variance explained by the fixed and random factors. The marginal R^2 represents the proportion of variance in the dependent measure explained by time, the period before and after the Project Citizen intervention. The conditional R^2 indicates the proportion of variance explained by both time and the classroom clusters. The difference between the conditional R^2 and the marginal R^2 reflects the proportion of variance explained by classroom alone (Sotirchos, Fitzgerald, and Crainiceanu, 2019). Separate models were estimated for the entire sample, middle school students, and high school students.

To account for the dependency of the pretest-posttest measures within students in classes, mixed ANOVA models were estimated to gauge the difference in pretest/posttest mean scores on

³ The guidelines for interpreting ICC used in this analysis are ICC=0-.10, little to no classroom clustering; ICC>1.0-<.25 moderate clustering; ICC>.25 strong clustering.

the civic outcome measures. Classroom was the between-subjects factor and time was the within-subjects factor. Statistical analyses were conducted on the pretest-posttest data to determine if there were statistically significant changes in mean student outcomes following the Project Citizen intervention. The pretest and posttest mean scores, the difference of pretest-posttest means, the percentage change in pretest-posttest means, the effect size based on Hedge's g , and the U.S. Department of Education's What Works Clearinghouse (WWC) improvement index were calculated. The percentage change is a useful statistic as it is easily interpreted and accessible to a wide audience. As a ratio, it can be misleading, especially if the initial value is near zero (Curran-Everett and Williams, 2015), which was not the case in this study. The interpretation of effect size in education research has become a matter of debate. A common approach adopts Cohen's (1988) benchmarks of .20 indicating a small effect, .50 a medium effect, and .80 a large effect. However, these guidelines were based on a small number of controlled lab experiments in social psychology conducted in the 1960s that primarily used undergraduate subjects. Meta-analyses of more recent, well-designed field experiments in education research have found that effect sizes with potentially important consequences are interpreted as having no or small effects using Cohen's guidelines (Kraft, 2020). It is prudent not to dismiss statistically significant differences with small effect sizes related to these outcomes. We consider effect sizes of .20 or greater to be consequential. The improvement index was calculated from the effect size based on Hedge's g .⁴ For the within-group comparisons, the improvement index indicates the expected change in percentile rank of an average student's performance at baseline following the Project Citizen intervention.

Multivariate models were estimated to assess the influence of civic knowledge and civic skills on engagement. Ordinary least squares (OLS) regression analyses were conducted since the ICC coefficients were less than .05 for all LMMs models, indicating little to no evidence of classroom clustering (O'Dwyer and Parker, 2014). Separate OLS regression models were run for civic identity integration, disposition to engage, and current engagement measures. The dependent variables were the posttest indexes. The pretest index was entered as a covariate to control for baseline levels of the dependent measures. The correlations (Pearson's r) between the pretest and posttest measures were .25 or less across the board. The VIF values for the pretest variables were 1.4 or less, indicating low levels of multicollinearity. There was evidence of modest multicollinearity among the independent variables measuring civic skills. The bivariate correlations between teamwork and the other skills indicators were moderate to high (see Table 7.) Multicollinearity was greatest between teamwork and civil discourse skills, with VIF values ranging from 1.6 to 2.0. The OLS regression coefficients were likely imprecise and should not be interpreted literally. To that end, the four civic skills indexes were entered as a block in the model, and the R^2 for the block was interpreted. Posttest knowledge, grade (1 middle school; 2 high school), and pretest engagement were each entered as separate blocks. Controls for gender, age, and race had little explanatory power and were nonsignificant, so they were dropped from the models.

⁴ Institute for Education Sciences. 2022. *What Works Clearinghouse, Procedures and Standards Handbook*, version 5, U.S. Department of Education, pp. 186-187.

The Effectiveness of Project Citizen

The data analysis supports the hypotheses that Project Citizen successfully imparts civic knowledge and competencies. Students who were taught Project Citizen made substantial gains in knowledge of government and the policy process. The increase in knowledge was greater for middle school students than for high school students. This finding is consistent with prior research indicating that middle school students had larger gains as they were learning more new material (Owen and McSweeney, 2025). After Project Citizen, students felt more prepared to engage in their communities and work collaboratively on issues and policy problems. Their communication, civil discourse, and teamwork skills improved. The findings were more pronounced for high school students than their middle school counterparts. High school students typically have more of a foundation upon which they can build their civic skills, including prior civics instruction. The high school environment provides more opportunities for civic engagement through extracurricular activities and service learning. High school students may see more of a connection to community affairs as they approach or reach voting age (Nam, Kidd, and Block, 2026).

Evidence of clustering by teacher/class was found for civic knowledge, but not for any of the civic skills. We ran OLS regression models in addition to the LMMs for the civic skills measures with nearly identical results. The results of the LMMs are reported here.

Civic Knowledge

Students' knowledge of American government and the public policy process improved significantly following their Project Citizen class. (See Table 2.) The results of the LMM indicated moderate classroom clustering for middle school students. The marginal R^2 value for the main effect of the intervention for middle school students was smaller than for classroom clustering. Consistent with the low ICC, the Project Citizen intervention for high school students explained more of the variance in posttest civic knowledge than classroom clusters. Both the intercept, which takes into account the random effect of classroom, and the parameter estimate for time were statistically significant for both middle and high school. The mixed ANOVA model revealed that the increase in middle school students' average knowledge scores was greater than for high school students. This finding is consistent with prior research suggesting that middle school students gain more knowledge as they are less familiar with the subject area content (Owen and McSweeney, 2025). Middle school students' knowledge scores increased from pretest to posttest by 43% compared to 18% for high school students. The effect sizes for both levels were moderate and corresponded to improvement index scores of +25 and +18 percentile points, respectively.

Table 2
Civic Knowledge

Linear Mixed Model			
	All Students	Middle School	High School
ICC	.25	.29	.10
Marginal R^2	.04	.12	.24

Conditional R ²	.28	.41	.34
Difference R ² c-R ² m	.16	.29	.10
Fixed Effects Estimates			
Intercept	5.45**	3.26**	3.12**
Time	1.11**	.48**	.57**
Mixed ANOVA Model			
	All Students	Middle School	High School
$\bar{X}$ Pretest	4.33	3.39	5.17
$\bar{X}$ Posttest	5.48	4.85	6.10
$\bar{X}$ Difference	1.15**	1.46**	.93**
% Change	27%	43%	18%
Effect Size	.58	.58	.47
Improvement Index	+22	+25	+18
n	984	431	553

Policy Action Skills

Students felt more prepared to work toward solving a problem in their community after participating in Project Citizen. (See Table 3.) The findings were more apparent for high school students than for middle schoolers. The ICC suggested that there was little classroom clustering in any of the models. The variance explained by the middle school model was small, and the parameter estimate for time was significant at $p \leq .05$. These findings are consistent with the results of the mixed ANOVA model, showing a small, significant pretest/posttest mean difference for the middle school policy action skills index. The small effect size corresponded to an improvement index score of +3 percentile points. Little, if any, of the high school model variance was explained by classroom clustering. High school students felt notably more prepared to solve a community problem after Project Citizen. The LLM parameter estimate for time was statistically significant at $p \leq .01$. The difference in mean scores increased by 11% from pretest to posttest. The effect size of .26 corresponded to an improvement index of +10 percentile points.

Table 3
Policy Action Skills

Linear Mixed Model			
	All Students	Middle School	High School
ICC	.07	.08	.07
Marginal R ²	.010	.01	.06
Conditional R ²	.072	.08	.06
Difference R ² c-R ² m	.062	.07	.00
Fixed Effects Estimates			
Intercept	6.29**	6.85**	5.87**
Time	.49**	.21*	.71**
Mixed ANOVA Model			
	All Students	Middle School	High School

$\bar{X}$ Pretest	6.78	7.07	6.58
$\bar{X}$ Posttest	7.27	7.29	7.29
$\bar{X}$ Difference	.49**	.22*	.71**
% Change	7%	3%	11%
Effect Size	.19	.08	.26
Improvement Index	+8	+3	+10
n	984	431	553

**p≤.01; *p≤.05

Communication Skills

Students' communication skills improved significantly following their Project Citizen experience. Once again, the gains were greater for high school than middle school. The initial mean scores on the communication skills index were approximately one point above the index midpoint. The near-zero ICC scores suggested no evidence of classroom clustering. (See Table 4.) The pretest-to-posttest percentage change was 5% for middle school and 9% for high school. The effect size for high school students (.29) was noteworthy for the acquisition of civic skills and corresponded to an improvement index score of +11 percentile points. The effect size for middle school students was minimal (.07), with an improvement index of +3 percentile points.

Table 4
Communication Skills

Linear Mixed Model			
	All Students	Middle School	High School
ICC	.03	.01	.03
Marginal R ²	.01	.01	.02
Conditional R ²	.04	.03	.07
Difference R ² c-R ² m	.03	.02	.05
Fixed Effects Estimates			
Intercept	3.90**	4.08**	3.74**
Time	.25**	.11*	.35**
Mixed ANOVA Model			
	All Students	Middle School	High School
$\bar{X}$ Pretest	4.14	4.18	4.09
$\bar{X}$ Posttest	4.39	4.28	4.45
$\bar{X}$ Difference	.25**	.10*	.36**
% Change	6%	5%	9%
Effect Size	.18	.07	.29
Improvement Index	+7	+3	+11
n	984	431	553

**p≤.01; *p≤.05

Civil Discourse Skills

High school students made modest gains in civil discourse skills. (See Table 5.) The ICC coefficients were near zero across the board, indicating that there was no clustering by class. The average pretest score on the civil discourse skills index for middle and high school students was approximately 5, which was in the upper third of the distribution. The mean index score increased significantly for high school students by 4%. The Hedge's g of .11 indicated a small effect of the intervention, corresponding to an improvement index score of +4 percentile points. The findings for middle school students were nonsignificant.

Table 5
Civil Discourse Skills

Linear Mixed Model			
	All Students	Middle School	High School
ICC	.03	.00	.01
Marginal R^2	.03	.01	.01
Conditional R^2	.05	.02	.07
Difference $R^2_c - R^2_m$	.02	.01	.06
Fixed Effects Estimates			
Intercept	4.86**	4.92**	4.89**
Time	.11*	.04	.16**
Mixed ANOVA Model			
	All Students	Middle School	High School
$\bar{X}$ Pretest	5.01	4.98	5.04
$\bar{X}$ Posttest	5.12	5.02	5.20
$\bar{X}$ Difference	.11**	.04	.16**
% Change	2%	1%	3%
Effect Size	.07	.03	.11
Improvement Index	+2	+1	+4
n	984	431	553

** $p \leq .01$; * $p \leq .05$

Teamwork Skills

Project Citizen encourages the development of teamwork skills as students collaborate to identify, research, and propose solutions to a problem. Students' pretest scores were about a point above the midpoint of the teamwork skills index. Both middle and high school students' teamwork skills increased post-intervention. (See Table 6.) Evidence of classroom clustering was not apparent, as the ICC coefficients were near zero. The intercept and the main effect of time (pretest-posttest) in the linear mixed models were statistically significant. Consistent with the pattern for the other civic skills, high school students reported greater gains than middle school students. High school students' mean score on the teamwork skills index increased by 6%, the

effect size of the Project Citizen intervention was .19, corresponding to an improvement index score of +8 percentile points. For middle school, the pretest-posttest gain was 2%, the effect size was small at .08, and their scores improved by +3 percentile points.

Table 6
Teamwork Skills

Linear Mixed Model			
	All Students	Middle School	High School
ICC	.05	.01	.08
Marginal R ²	.05	.01	.01
Conditional R ²	.06	.01	.09
Difference R ² c-R ² m	.01	.00	.08
Fixed Effects Estimates			
Intercept	7.13**	7.43**	6.91**
Time	.29**	.18*	.39**
Mixed ANOVA Model			
	All Students	Middle School	High School
$\bar{X}$ Pretest	7.47	7.61	7.35
$\bar{X}$ Posttest	7.77	7.78	7.76
$\bar{X}$ Difference	.30**	.17*	.41**
% Change	4%	2%	6%
Effect Size	.15	.08	.19
Improvement Index	+6	+3	+8
n	989	434	555

**p≤.01; *p≤.05

The Relationship Between Civic Knowledge, Civic Skills, and Engagement

Students with stronger civic skills were more likely to develop a propensity for democratic engagement, indicating support for H₃. The relationship between civic knowledge and engagement was less apparent. The bivariate correlations between knowledge and the three engagement measures were weak, but statistically significant, providing some support for H₅. The correlation between knowledge and policy action skills was moderate, while the associations with discussion, civil discourse, and teamwork skills were weak. The multiple regression analyses revealed strong support for H₆ as the block of civic skills was much better at predicting the engagement outcomes than knowledge.

Correlations between Civic Knowledge and Skills

To examine the basic association between civic knowledge and skills, we computed the correlations (Pearson's r) between civic knowledge and the four civic skills indexes. All of the correlations were statistically significant at p≤.01. (See Table 7.) The relationship between knowledge and civic skills was strongest for the policy action index. The correlation was

moderate at around .30, and was slightly higher for high school students. Three of the civic knowledge indicators addressed the public policy process, which may have contributed to the somewhat greater correlation with policy action skills. The relationships between knowledge and discussion, civil discourse, and teamwork skills were weak for middle school students. For high school students, knowledge was more strongly associated with civil discourse and teamwork than with discussion.

The four civic skills we examined are distinct yet interrelated. In general, the associations were greater for high school students, with a few exceptions. The highest correlations were between teamwork and the three other civic skills. The relationship between teamwork and civil discourse skills was especially strong at .53 for middle school and .69 for high school. The correlation between teamwork and discussion was also greater for high school (.55) than middle school (.45). Policy action skills were moderately related to discussion and civil discourse skills. The smallest association for middle school students was between discussion and civil discourse skills (.22). The relationship was greater for high school students, with a moderate Pearson's r of .38. The relatively modest relationship between discussion and civil discourse suggests that these skill sets share some characteristics but represent separate constructs. Communication skills are focused on students' ability to convey information clearly and effectively, while civil discourse skills emphasize empathetic listening and respectful discussion of difficult issues (Facing History & Ourselves, 2025).

Table 7
Correlations (Pearson's r) Between Posttest Engagement,
Civic Knowledge, and Civic Skills Indexes

All Students				
n=984	Knowledge	Policy Action	Discussion	Discourse
Policy Action	.31			
Discussion	.15	.37		
Discourse	.23	.33	.32	
Teamwork	.21	.42	.51	.62
Middle School				
n=431	Knowledge	Policy Action	Discussion	Discourse
Policy Action	.29			
Discussion	.14	.34		
Discourse	.13	.34	.22	
Teamwork	.13	.41	.45	.52
High School				
n=553	Knowledge	Policy Action	Discussion	Discourse
Policy Action	.32			
Discussion	.13	.39		
Discourse	.28	.32	.38	
Teamwork	.27	.42	.55	.69

All correlations are significant at $p \leq .01$

Regression Analyses of Knowledge and Skills on Engagement

We ran separate OLS regression analyses to examine the relationship of civic knowledge and skills to students' civic identity integration, disposition to engage, and current engagement. (See Table 8.) We present the bivariate correlations between the predictors and the dependent measures of engagement. As the skills measures were moderately collinear, we focused on the R^2 change for each block in the model, although we provide the standardized regression coefficients (β) for each independent variable. Interaction terms for posttest knowledge and each of the civic skills measures were computed and included in the regression models. None of the interactions were statistically significant.

The relationship between knowledge and the dependent variables was notably weaker than correlations between the civic skills measures. The bivariate relationship (Pearson's r) between knowledge and dispositions to engage (.21) was stronger than for identity integration (.10) and engagement (.12). The β coefficients in the multivariate models for knowledge were small, and in the case of identity integration and engagement, negative. These findings are reflected in the low variance explained (R^2 block) for knowledge in each equation. The bivariate correlations between the civic skills indexes and the dependent measures were moderate to strong. The Pearson's r coefficient was highest for policy action and disposition to engage (.52), followed by current engagement (.47), and civic identity integration (.40). The bivariate correlations for the discussion index were .44 for engagement, .38 for identity integration, and .34 for disposition to engage. The bivariate associations with civil discourse were slightly lower than for the other skills measures, especially for current engagement (.27). The strongest correlations with teamwork skills were for civic identity integration (.41) and disposition to engage (.42). The bivariate relationship was weakest for teamwork and current engagement (.30). The R^2 values for the block of civic skills were much greater than for knowledge, the pretest indicators, and grade. Civic skills explained a larger proportion of the variance in disposition to engage (.32), followed by current engagement (.29), and civic identity integration (.27) than knowledge.

Table 8
OLS Regression Analysis
Civic Knowledge and Skills on Engagement Indicators

	Civic Identity Integration			Disposition to Engage			Current Engagement		
	r	β	R^2 Block	r	β	R^2 Block	r	β	R^2 Block
Knowledge	.10**	-.06*	.01**	.21**	.03*	.04**	.12**	-.03	.01**
Policy Action	.40**	.20**	.27**	.52**	.29**	.32**	.47**	.26**	.29**
Discussion	.38**	.17**		.34**	.18**		.44**	.23**	
Discourse	.36**	.10**		.33**	.04		.27**	.05	
Teamwork	.41**	.13**		.42**	.11**		.30**	.10*	
Pretest	.44**	.32**	.10**	.46**	.26**	.06**	.52**	.38*	.10**
Grade	.03	.04	.00	.10**	.07*	.04**	.07*	.04	<.01*
Total R^2			.38**			.43**			.41**
n	958	958		955	955		958	958	

The pretest variables indicated that the baseline scores were moderately strong predictors of the dependent variables. They accounted for 10% of the variance in the civic identity integration and engagement models and 6% in the disposition to engage model. There was no difference in civic identity integration based on middle or high school grade level. The impact of grade was greatest on disposition to engage favoring high school students. The bivariate correlation for grade was .10, and it explained 4% of the variance in the multivariate model. The bivariate correlation (.07) was small and statistically significant for grade and current engagement. However, middle or high school grade level was not significant in the OLS regression analysis.

Students' Dispositions to Engage After Project Citizen

After taking part in Project Citizen, students reported that they were more interested in their communities, more likely to become involved, and more inclined to volunteer. (See Table 9.) Three quarters of students indicated that they were more likely to volunteer to help others after Project Citizen. 68% of students were more interested in what was happening in their communities, and 60% were more likely to become involved. Consistent with the trends in the foregoing data analysis, a higher percentage of high school students indicated an intention to engage than middle schoolers. The percentage point difference was greatest for interest in community affairs (21 points), followed by likelihood of becoming involved (16 points), and likelihood of volunteering (12 points).

Table 9
Students' Dispositions to Engage Post Project Citizen

After taking this class . . .	All Students	Middle School	High School	Middle-High School Diff.
I am more interested in what is going on in my community.	68%	55%	76%	21
I am more likely to become involved in my community.	60%	51%	67%	16
I am more likely to volunteer to help others.	74%	66%	78%	12

Discussion

The present pilot study research established the efficacy of the ICC teacher PD in preparing middle and high school civic educators to instruct Project Citizen. Teachers were presented with the ICCF to guide the intentional integration of high-leverage instructional strategies as they implemented the intervention with their students. The program evaluation found that students' civic knowledge scores improved markedly after the intervention. Students made statistically significant gains in policy action, communication, civil discourse, and teamwork skills. The grade-level increases followed a pattern that has been established in prior research (Owen, Hartzell, and Sanchez, 20**; Owen and McSweeney, 2025). Middle school students had stronger knowledge gains, while high school students registered greater improvements in civic skills.

K-12 civic education has typically been more successful at teaching knowledge than skills (Halverson, Tucker, and Smith, 2024; Hillygus and Holbein, 2023). In part, this trend is a consequence of the limited time devoted to civics, as educators prioritize core knowledge to meet assessment goals. The paucity of quality civics curricular programs and limited availability of PD programs to provide teachers with the content and pedagogies to instill civic skills further exacerbates the situation (Owen, 2026). Our findings suggest that students' development of civic skills is a longitudinal process. In the early grades, teachers build students' background knowledge and support their development of civic and history learning skills. Inquiry-based approaches, like the ICC/Project Citizen initiative, require students to ask questions, analyze evidence, consider multiple perspectives, and engage in discussion (Maltzman and Burnham, 2026). High school students typically have a larger reservoir of content knowledge and are more likely to have experience with civic learning skills than middle school students. Nearing or at voting age, they can better envision themselves as active community members. They can see the relevance and practical application of civic skills.

The data afforded the opportunity to explore the extent to which civic knowledge and skills are related to three dimensions of democratic engagement. Knowledge and skills work in tandem. A public who understands the foundations and processes of the American system of government is essential for sustaining the integrity of democracy. At the same time, citizens must develop skills and capacities for meaningful engagement. Questions persist among political scientists and civic educators about whether knowledge or skills have the most direct correspondence to democratic engagement. Our evidence indicates that middle and high school students who have developed a strong set of civic skills are the most likely to have a robust sense of their identity as a valued member of their community, anticipate participating in public affairs when they have the opportunity, and are more involved in government and politics. The direct relationship of knowledge to engagement was less apparent.

Implications

In 2015, there was a significant movement to ensure that civic knowledge was being taught in schools led by the Joe Foss Institute whose proposed solution was for state education agencies to require the United States Citizenship and Immigration Services (USCIS) naturalization test as a graduation requirement. This led Arizona and 17 more states to adopt such policies between 2015 and 2018. The assumption was that requiring the acquisition of civic knowledge, as tested by the USCIS exam, would also inform curriculum policy and practice that would bring accountability for civic education to these states. Additionally, the bare minimum of political knowledge needed for the exam would spur political involvement, namely voter turnout. Ten years later, however, the results are in and show no causal relationship between the required test focused on civic knowledge and voter turnout (Jung and Gopalan, 2024).

The civic education field has long asked the question of how civic education can increase civic engagement. The USCIS was the wrong answer. The research on the ICC/Project Citizen, however, not only underscores this, but also provides a step forward towards a better answer. Knowledge alone is not enough. We are left with the questions: What is required to move the needle in civic engagement? What are the implications for education policy and practice including curriculum development, assessment policy, instructional practices, and future research in civic education?

Instructional Practices

By design, Project Citizen is a whole-class endeavor. All students in a class participate in community mapping, identify problems or challenges to be addressed through public policy and then decide on one *as a whole class*. Students are deeply engaged in civic competencies from the ICCF, like collaboration, civil dialogue, and discussion to reach agreements. They are in a whole-class team, then engage in smaller teams contributing to the whole. This inherent process builds these civic skills on a backdrop of a common cause they all get behind.

The ICC project trains teachers to be explicit in naming the civic competencies from the ICCF. These may be the instructional strategies that shape their future civic engagement. For example, teachers will instruct students: *When you go to your four corners for your discussion about democratic principles, you will use active and empathetic listening. What does that mean? Why do we use it?* They then have students actively reflect on their development of these competencies within their civic knowledge and skill-building through Project Citizen. This explicit call-out, reinforcement, and reflection is unique. Having teachers and then students name the skill or competency and assess their own growth is an important pedagogical move that demystifies the civic dispositions and skills they acquire through the intervention. If students know they are using civil dialogue or that through discussion and collaboration they reach a new understanding of a community problem, they can internalize the desire to practice these skills even more.

In contrast, traditional civics classes, and even project-based civics where students work alone or in small, topic-specific groups, bypass these civic-competency-building opportunities. To continue to see positive results in civic skill attainment and civic engagement proclivity, civics curricula should include essential elements like Project Citizen's whole-class design, whole-class goal-setting, and multi-layered teamwork towards a common goal. These structures may give rise to the students' attachment to the common good of their communities, including their classroom and the larger community, which in turn can spur civic engagement.

Curriculum Design

Students' civic identity is shaped over the course of Project Citizen as they may have to set aside individual preferences for the common good when they decide on a community issue. Thus, curricular design that encourages and supports whole-class PBL can capitalize on these findings to increase civic engagement. The findings also have implications for state and district standards. Social studies standards that include content as well as skills aligned to civic competencies support positive outcomes in civic engagement more than civic knowledge standards alone (Halverson, Tucker, and Smith, 2025).

Student dispositions toward civic engagement after Project Citizen increased between middle and high school students. Curriculum design and the standards that shape it should capitalize on this finding and incorporate project-based civic learning as early as possible. Including civic knowledge and skills through intentional integration of civic competencies in elementary grades may bring gains in dispositions for civic engagement at even greater rates.

Assessment Policy

Our findings have important implications for state assessment policies as well. While 18 states did not see increased voter turnout after requiring students to answer questions from the USCIS naturalization exam, an alternative assessment policy like Civic Seals may have been able to move the needle in the same ten years. Civic seals are “a credential affixed to a student’s high school diploma and transcript, earned by going beyond standard graduation requirements to demonstrate real civic knowledge and engagement” (CivxNow, n.d.). Although civic seals vary greatly across states in terms of implementation, requirements, accountability, and funding, they generally include a service or community project-based component for students to earn the seal, or for teachers or a school to attain a similar designation. States may continue to require knowledge-based exams, but to support civic engagement, these exams need to be fortified with additional curriculum for civic-skill-building PBL and tied to state accountability measures. State and local districts may also benefit from using the ICCF in framing their civics assessment policy.

Conclusion

The question of how to best prepare young people to become responsible, engaged community members has challenged civic educators since the nation’s Founding (Valsania, 2021). Engaged democratic citizenship involves the interplay of knowledge and skills that can encourage the development of dispositions and propensities to act. Much about the interrelationships between these constructs remains to be sorted out. Our research finds that quality project-based instruction can be successful in cultivating civic skills that orient middle and high school students toward community engagement. While an understanding of the structure, function, and processes of government, as well as individuals’ rights, responsibilities, and duties, is important, the direct association of civic knowledge to engagement is less clear than for civic skills. Civic knowledge, skills, and dispositions—the cornerstones of civic education—often are treated theoretically as discrete concepts without fully understanding how they are interconnected or how they work collectively to foster democratic engagement. Further research should focus on unpacking these interrelationships in the interest of advancing our ability to prime students for civic life.

The ICCF has given us a strong starting point to identify, define, and make extant the interplay between civic skills and dispositions and how they may shape students’ propensities for democratic engagement. While the framework itself provides a structured way to study civic competencies, further research is needed to examine their combined effects as well as their interplay with one another. Civic competencies do not develop in isolation so studying how they manifest in different learning contexts and where there might be redundancy is important. The ICCF itself can be updated and changed as new findings suggest better ways to capture the competencies that lead to civic engagement.

Coda

Reflecting on Hochschild’s observations fifteen years ago, we are left to ponder the question: Have we reached a breaking point where the lack of civic knowledge in society *will* affect engagement? The STEM field calls back to their “Sputnik” moment as a galvanizing force to realign national, state, and local education priorities (and funding) around

science, technology, engineering, and math education so as not to fall behind the rest of the world. Civic education cannot wait for a Sputnik moment. We cannot afford to be “out-democratized” by other countries. There may be a tipping point where the lack of civic knowledge *does* start to play a role in the deterioration of civic engagement. But do we want to find out when that is? While civic knowledge alone will not necessarily lead to direct civic engagement, it is a vital aspect of a well-rounded civic education.

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