Preparing Students with Disabilities for Civic Engagement

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ABSTRACT

The vast disparities in the availability and quality of civic education for students with disabilities (SWDs) denies them the preparation to become competent, responsible, and impactful citizens. This study examines the effectiveness of the Center for Civic Education's James Madison Legacy Project Expansion, which provides teacher professional development (PD) and a curriculum intervention based on We the People: The Citizen and the Constitution (WTP) adapted for SWDs, in producing positive civic outcomes for middle and high school students. The study employs a randomized controlled trial (RCT) design that compares students in classes with high percentages of SWDs who received the adapted WTP curriculum to those who took a standard civics class. The findings indicated that SWDs can successfully navigate an adapted civic education curriculum and significantly increase their civic knowledge, skills, and dispositions. Students who received the WTP curriculum intervention had greater gains in all three domains than those in the control condition.

Introduction

Providing robust civic education for all students is a viable mechanism for instilling a commitment to democracy and confronting retrenchment. At present, there are vast disparities in the availability and quality of civic education. Students with disabilities (SWDs) are denied access to civic learning opportunities that would prepare them to be competent, responsible, and impactful citizens more often than other elementary and secondary school students. Without the requisite knowledge about how the political system works and the skills to engage effectively, SWDs are not well equipped to become effective advocates for their rights and needs (Bueso, 2022). The lack of a strong civic foundation carries through to adulthood, where people with disabilities are less likely to participate in politics. They face major obstacles to countering the marginalization they have faced historically and becoming agents of social change (Harris, 2018).

The K-12 civic education experience for SWDs has been given far less attention than that of other high-need student populations, such as students living in poverty or emerging multilingual learners (EMLs), even in studies that seek to be inclusive of diverse populations (Levinson, 2012; Mullins, et al., 2020). SWDs are not only marginalized in schools, they also have been sidelined in civic education research, although there are positive developments on this front (e.g., Minarik and Lintner, 2024). The dominant theoretical models of civic education do not readily accommodate students with disabilities. They assume a restrictive notion of citizenship based on conformity to limited conceptions of intellectual ability, communicative competence, social independence, and behavior (Agran and Hughes, 2013; Taylor, 2020). When they are not entirely excluded, students with disabilities are relegated to lower-level civic learning opportunities which have deleterious consequences for their civic capacity. They are less likely to have the chance to participate in class discussions of issues where they can gain skills in deliberation. They develop fewer self-advocacy skills and are less inclined to make decisions for themselves. They are left out of the planning process for community engagement projects and are given perfunctory tasks when they volunteer. As a result, students with disabilities are less likely to follow local and national politics or to participate in the full range of citizen actions (Bueso,

2022). People with disabilities have lower voter registration and turnout rates than their non-disabled peers (Schur, Kruse, and Ameri, 2023).

This research examines the effectiveness of the Center for Civic Education's James Madison Legacy Project Expansion: Empowering High-Need Students for Informed, Thoughtful, and Productive Citizenship (JMLPE). The program provides teacher professional development (PD) and a curriculum intervention based on We the People: The Citizen and the Constitution (WTP) adapted for SWDs. (The program also includes EMLs and students of color who are not addressed here.) Student outcomes of the SWD study are examined to determine the extent to which the JMLPE impacted students' civic knowledge, dispositions, and skills. The research was conducted by the Civic Education Research Lab (CERL) at Georgetown University.[1]

This study addresses the core research question: How can middle and high school students with disabilities be prepared for democratic engagement through civic education? It examines the effectiveness of the Center's PD program and adapted WTP curriculum on student outcomes in classes with high concentrations of SWDs. In this context, the research specifically examines the question: What is the effect of the WTP curriculum intervention on secondary school students' acquisition of civic knowledge, skills, and dispositions compared to students who take a standard civics or social studies class?

Defining Students with Disabilities

The Individuals with Disabilities Education Act (IDEA) governs special education and guarantees "free appropriate public education" (FAPE) to all children, including children with disabilities. "Each State must ensure that FAPE is available to any individual child with a disability who needs special education and related services . . ." (IDEA, 1975, 34 CFR §300.101). The IDEA mandates that SWDs be educated to the "maximum extent appropriate" with their nondisabled peers in the "least restrictive environment" (Riser-Kositsky, 2024).

The IDEA pertains to students with a range of intellectual and developmental disabilities. Data from the 2021-22 academic year indicate that students with a specific learning disability constitute one-third of SWDs. Civic educators report that this category of SWD poses particular challenges (Garwood, et al., 2020). It is defined under IDEA as:

> a disorder in one or more of the basic psychological processes involved in understanding or using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia (IDEA, 1975, §300.8(c)(10)).

Approximately one-fifth of SWDs have a speech or language impairment. Fifteen percent have a health impairment, such as "limited strength, vitality, or alertness due to chronic or acute health problems such as a heart condition, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anemia, hemophilia, epilepsy, lead poisoning, leukemia, or diabetes" (Irwin, et al., 2023: 15).

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[1] The study is supported by a grant from the Innovative Education and Research Program (IES) of the U.S. Department of Education.

Other disability types include autism, developmental delay, intellectual disability, emotional disturbance, hearing impairment, visual impairment, and traumatic brain injury (Irwin, et al., 2023).

The number of SWDs in K-12 schools has increased notably over the past four decades. In the 2021-22 academic year, 7.3 million SWDs were enrolled in public schools compared 6.4 million in the 2010-11 academic year. Over 10 years, the percentage of SWDs in the population rose from 13% to 15% (NCES, 2022; Irwin, 2023). At the same time, the number of special education teachers has been declining. Special education teachers are defined by the U.S. government as teachers who "work with students who have a wide range of learning, mental, emotional, and physical disabilities" (Bureau of Labor Statistics, 2024). The shortage of special education teachers is greater than for any field except foreign languages (Schaeffer, 2023). A January 2023 School Pulse Panel (SPP) found that 43% of public schools had vacancies in special education (IES, 2023b), and 77% were understaffed in this area (Delarosa, Robelen, and Sharp, 2023; IES, 2023a). The shortage of special education teachers is far greater than the 15% of vacancies in English Learner education and 7% in social studies as a discipline (IES, 2023b). Public schools reported that special education positions were the hardest to fill (Delarosa, Robelen, and Sharp, 2023). Teachers are leaving the special education field in large numbers due to burnout, the high demands of the job, insufficient support, low pay, poor working conditions, and resource limitations (Matthews, et al., 2021). The substantial shortage of special education teachers adversely affects schools' ability to provide equal opportunities for SWDs. This trend has been especially apparent in high-poverty schools in urban and rural areas which have difficulty attracting and retaining special education teachers with appropriate training and experience, especially teachers of color (Mason-Williams, et al., 2020). School districts have lowered the certification requirements and have allowed teachers to work with provisional licenses to meet the demand.

Professional development opportunities in civic education for teachers of SWDs are limited (Mullins, et al., 2020). This is especially the case for inclusive education where SWDs are treated as being just as competent as students without disabilities. Ideally, educators should accept SWDs differences, ensure that they feel supported, and encourage them to participate fully in the classroom. Teachers who participate in PD have more positive attitudes toward inclusive education but are more subject to burnout (Holmqvist and Lelinge, 2020).

The wide differences in the types and severity of disabilities creates challenges for providing accommodations. Sixty-six percent of SWDs spend 80% or more of their school day in general education classes, including social studies. However, only a small percentage of students with autism, intellectual disabilities, speech and language impairment, and emotional or behavioral disorders spend any time in general education classrooms. They often miss out on civics instruction entirely. Even when SWDs are placed in general education settings, they may not receive inclusive instruction or curricular support that is adapted to their needs (Minarik and Lintner, 2024). A goal of the JMLPE is to provide teachers with this support through PD that focuses on pedagogies and lesson plans adapted for instructing SWDs that also can be used effectively in general education classrooms.

Civic Education for SWDs

Despite calls for inclusion and equal access to education, SWDs too often are denied entree to the civics instruction available to other students. They frequently are deprived of the opportunity to gain even basic civic knowledge, skills, and dispositions (Bueso, 2022). The notion of educating SWDs for active citizenship runs counter to the traditional special education paradigm where students with learning differences are stigmatized by a presumption of incompetence. Minarik and Lintner argue that SWDs are defined by federal legislation, including IDEA, using a medical model that treats disability as an impairment where "students are viewed by their perceived deficits rather than their strengths" (2024: 5). This definition creates the perception that SWDs are limited in their capacity to take part in society, including political life, which can justify restricting their civics instruction. Dominant models of civic education exclude SWDs by mandating that students conform to nebulous standards of intellectual ability, communication skills, social independence, and behavior that are perceived requirements of good citizenship (Mann, et al., 2015). The unique paths to active democratic citizenship that people with disabilities take are rarely considered or honored (Urban, 2018). Advocates argue for the adoption of a social model of citizenship that challenges stigmatizing assumptions and works for a more inclusive education environment that emphasizes SWDs strengths and addresses challenges (Minarik and Lintner 2024).

Policies regarding civic education for SWDs vary widely. While some states, districts, and schools have made a concerted effort to focus more heavily on civic education, this progress does not always extend to SWDs. A 2020 report by the Massachusetts Department of Elementary and Secondary Education (DESE) found that schools systematically, even intentionally, exclude SWDs from social studies classes to claim the time for other services (Tichnor-Wagner, Kawashima-Ginsberg, and Hayat, 2020; Cairn, 2021). At the same time, efforts are being made to provide more inclusive history and civics instruction to all students, including SWDs. The Educating for American Democracy Roadmap (EAD), an inquiry-base, integrated content framework that provides advice and support for teaching civics and American history for all students, has been extended for SWDs by Emerging America and the Learning Disabilities Association of America.[2]

Teachers in middle and high school face challenges in providing quality civic education for SWDs who come to them with little background in history and social studies content. The consequences of the limited exposure to civics students receive in elementary school are magnified for SWDs, who must develop new learning strategies. Many teachers are unable to engage in pedagogical practices required for civics instruction when SWDs are placed in general education settings, which is increasingly the case. With limited time to impart a large amount of civics content, teachers are constrained in their ability to modify instruction for SWDs. To successfully gain knowledge and develop citizenship skills, students must synthesize information from different sources, which requires strong reading comprehension skills. They must summarize often complex ideas, consider multiple viewpoints, examine evidence, make connections, and draw conclusions (Curtis and Green, 2021).

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[2] https://tpsconsortiumcreatedmaterials.org/wp-content/uploads/2023/02/Roadmap-8.0-Educating-for-American-Democracy-Disability-History-and-Civics-Extension.pdf

Quality civic learning opportunities can prepare SWDs to become capable, contributing citizens in democracy who are able to advocate for themselves and others. Positive civic outcomes have been achieved across interventions when sufficient scaffolding of civics lessons is provided for SWDs that specifies a logical progression for knowledge and skill building (Ciullo, et al., 2020; Curtis and Green, 2021). Active learning approaches that are both teacher and student directed can work toward achieving constructive civic goals (Minarik and Lintner, 2024). Providing good civic education to SWDs requires that schools invest sufficient resources, including class time, and that teachers be prepared to instruct struggling learners in the civics domain (Curtis and Green, 2021).

Civic education for SWDs in many schools is not prioritized or adapted to achieve desired civic outcomes. A large-scale empirical study of more than 48,000 high school students in Chicago Public Schools found statistically significant differences between the civic education experience of SWDs and those without disabilities after controlling for socioeconomic status, race/ethnicity, and gender. SWDs were less likely to receive formal instruction in civics and social studies and were often excluded from discussion-based classroom experiences. While they were included more often in service-based activities, they were given supportive roles (Bueso, 2022), such as handing out snacks to other participants. Schools struggle especially to provide meaningful civics instruction to students with emotional and behavioral disorders and those with learning disabilities. These categories of SWDs have far lower rates of community participation in voluntary service activities than other students (Garwood, et al., 2020).

People with disabilities are less likely to participate in elections than the general voting population when given the opportunity. The turnout rate in the 2020 election was 7% lower for people with disabilities than for other voters. Over 2 million people with disabilities experienced difficulties casting a ballot (Miller, 2024). While barriers to access are a significant concern, limited civic education is a contributing factor. Promoting a toolkit for students to encourage voter participation, Secretary of Education Miguel A. Cardona recognized the obstacles that SWDs and other underserved student populations confront. He stated, "Our education system plays a critical role in promoting and supporting participation for all students in the electoral process–from providing civic education during a student's elementary and secondary school years to facilitating the voting process during a student's postsecondary education" (U.S. Department of Education, n.d.).

SWD's diminished civic education experiences correspond to low civics assessment results (Taylor, 2020). The National Assessment of Educational Progress (NAEP) civics exam has registered persistent knowledge deficits in citizenship knowledge and skills among all students. The discouraging findings are exacerbated for SWDs. Only 6% of SWD eight-graders performed at proficient levels in civics compared to 23% of students without disabilities on the 2022 NAEP civics exam. SWDs had an average score of 123 compared to 155 for students without disabilities for a gap of 32 points (NAEP, 2024). SWD's civic score did not change from 2018 while the score for students without disabilities decreased. Still, the sizable NAEP civics gap between SWDs and other students has been evident for over two decades and there has been little movement, especially in recent years.

The James Madison Legacy Project Expansion

The JMLPE is a three-year program that focuses on making the Center's WTP curriculum intervention accessible to SWDs, EMLs, and students of color in middle and high school. The JMLPE builds upon its predecessor, the James Madison Legacy Project (JMLP), which was aimed broadly at high-need students. CERL's three-year research program on the JMLP (2015-2019) found that the WTP curriculum bolsters students' knowledge acquisition with cooperative learning activities that also are designed to develop their civic dispositions and skills. The research suggested that it would be beneficial to SWDs, EMLs, and students of color for the Center to adapt the established WTP teacher professional development curriculum intervention to better address their civics instructional needs (Owen, Hartzell, and Sanchez, 2020).

The WTP curriculum was developed in 1987 and adopted as the principal education program on the U.S. Constitution by the Commission on the Bicentennial of the U.S. Constitution. WTP is grounded in the foundations and institutions of American government and is distinctive for its emphasis on Constitutional principles, the Bill of Rights, and Supreme Court cases, and their relevance to current issues and debates. Civic social-emotional learning (SEL) competencies, such as collaboration and civil discourse, can be readily integrated into the WTP curriculum. Over 30 million students and 75,000 educators have participated in WTP. Students take part in a range of learning activities, such as primary document analysis, group projects, debates, democratic simulations, and student speeches. The culminating experience is a series of simulated congressional hearings where student teams testify before a panel of judges who are typically community leaders, government officials, academics, lawyers, judges, and distinguished civic educators. Students research and prepare sets of questions where they demonstrate their knowledge and understanding of constitutional principles and defend their positions on historical and contemporary issues. Middle and high school classes can participate in district, statewide, and national competitions (civiced.org/pdfs/WethePeopleOverview.pdf).

During the first phase of the JMLPE, the Center and CERL consulted with teacher-experts to identify priorities, educational objectives, pressing needs, best instructional practices, and barriers to curriculum implementation, including pandemic-related obstacles. CERL collected data from 33 middle and high school educators from fourteen states who had experience designing civics curricula and instructing students in the target populations. Teachers responded to an online survey, the results of which were shared during a JMLPE Curriculum Workshop that took place in June of 2022. The teacher-experts identified adapting teaching practices and protocols for student-centered, active learning as a particular challenge for SWDs. They felt that teachers should make the curriculum accessible and relevant by connecting students' experiences and background to the WTP curriculum content and showing the relationship to their daily lives. They recommended providing content knowledge to teachers so that WTP can be accessible to students who have limited prior awareness of the U.S. Constitution, American government, and history which is often the case for SWDs. The teacher-experts maintained that classroom implementation of WTP should be consistent with Universal Design for Learning (UDL), a flexible approach to teaching and learning that provides all students with an equal opportunity to succeed by finding ways to keep individual students motivated (Stapelton-Corcoran, 2022; Owen and Phillips, 2023).

CERL conducted pilot research in the first year (2022-23) of the JMLPE to evaluate the effectiveness of the adapted WTP curriculum and associated pedagogies developed by the Center during the initial phase of the project on student learning for the three focal populations. The study focused on students' acquisition of civic knowledge, dispositions and Civic SEL competencies. The pilot study used a quasi-experimental, pretest-posttest design. Ten special education teachers who were instructing classes with 30% or more SWDs were recruited for the study, and nine completed the research. A total of 196 SWDs were enrolled in the pilot study. The teachers had prior experience with teaching the WTP curriculum and were identified by the Center's staff and state coordinators as expert instructors. More than half of these teachers attended the June JMLPE Workshop and worked on adapting lesson plans and materials. The pilot study teachers did not participate in a JMLPE PD program. While SWDs in the pilot study had the lowest civic content knowledge of the three student populations on the pretest, they had the greatest gains on the posttest. Their knowledge scores increased by 69% from pretest to posttest. SWDs experienced a small increase in political interest and attention to civic affairs. The pretest/posttest differences on other civic dispositions and SEL competencies were negligible (Owen and Sutherland, 2023).

The JMLPE employed best practices for design-based implementation research, as the Center and CERL worked in tandem to facilitate program innovation (Owen, Phillips, and Irion-Groth, 2024). The results of the pilot study guided the next iteration of adapting the WTP curriculum and developing an effective teacher PD program. The Center convened a three-day workshop where staff worked closely with site coordinators, teacher-experts, and curriculum developers to revise and further adapt the WTP curriculum for SWDs, EMLs, and students of color. The updated WTP curriculum consisted of 30 new lesson plans at the middle school level (Level 2) and 39 at the high school level (Level 3). The lesson plans were aligned with the six units of the WTP textbook along with supplemental materials. Teachers could choose to implement Level 2 or Level 3 lessons with their students based on their assessment of their ability to handle the material. Level 2 lessons could be used with high school SWDs, especially if they had little background in American government and history.

Teachers enrolled in the JMLPE received 52 hours of PD consisting of 36 hours at a four to five day in-person summer institute followed by eight two-hour monthly sessions (16 hours) over the academic year. The PD program included specialized instructional techniques for adapting the curriculum for SWDs. It included sessions on trauma-informed pedagogy that supports inclusive and equitable learning environments which is pertinent to SWDs who disproportionately experience trauma and marginalization in and outside of school (Thomas, Crosby, and Vanderhaar, 2019). Teachers were supported by a professional learning community led by coordinators in their state. Students received at least 40 hours of instruction in the WTP curriculum as their civics or social studies class during the regular school day.

Study Hypotheses

The logic model for the JMLPE specifies that the teacher PD program and implementation of the WTP curriculum adapted for SWDs will produce increases in students' civic competencies. Students' civic knowledge was assessed by their score on a test of standard content for civics and social studies pertaining to the foundations, institutions, and processes of

American government. In addition, students' perceptions of whether they had a greater understanding of American government, historical events, their rights and responsibilities as citizens, and other races and cultures were ascertained. The civic dispositions analyzed I the research were civic attentiveness, which measures students' concern about issues and monitoring of public affairs, and internal political efficacy, the belief that they have a say in what government does. The civic skills examined were communication and civil discourse skills and teamwork and collaboration skills.

The following hypotheses were tested in this study:

H_1: The civic knowledge of students whose teachers received the JMLPE PD and were taught the WTP curriculum will increase.

H_2: Students who were taught the WTP curriculum will have greater civic knowledge gains than students who were taught a traditional civics curriculum.

H_3: The civic dispositions of students whose teachers received the JMLPE PD and were taught the WTP curriculum will increase.

H_4: Students who were taught the WTP curriculum will have greater gains in civic dispositions than students who were taught a traditional civics curriculum.

H_5: The civic skills of students whose teachers received the JMLPE PD and were taught the WTP curriculum will increase.

H_6: Students who were taught the WTP curriculum will have greater gains in civic skills than students who were taught a traditional civics curriculum.

The SWD JMLPE Study

The present study evaluates the effectiveness of the teacher PD and the WTP curriculum intervention in producing positive civic outcomes for classes with high concentrations of SWDs. Separate studies of the three target student populations were fielded. The research on SWDs was conducted during the 2023-2024 academic year. The EML study is taking place during the 2024-2025 academic year. Data on students of color is being collected during both study years which constitutes a single study.[3] The JMLPE was instituted in seven states in the 2023-2024 academic year and expanded to twelve states in 2024-2025.

The research employs a cluster randomized controlled trial (RCT) with school level of assignment. The impact evaluation compares the students of teachers who received the JMLPE PD and implemented the adapted WTP curriculum to their classes with a high percentage (50%

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[3]IRB approval was granted for the study by the Georgetown University Human Subjects Review Board (IRB-C). The student research (STUDY00005562) was approved with "Exempt" status as the studies involved minimal to no risks to subjects.

8

or more) of SWDs. The comparison group consists of teachers who have not received the JMLPE PD program and instruct conventional civics classes with a high percentage of SWDs. Students in the "business as usual" condition received a standard civics or social studies curriculum that typically emphasizes classroom instruction focused on knowledge building and discussion-based activities as opposed to participatory elements of learning or community engagement (Levesque, 2018). The JMLPE was implemented in Arizona, Colorado, Kentucky, Maryland, Tennessee, Virginia, and West Virginia. Schools were recruited by coordinators in the Center's network of civic educators who directed the JMLPE in their state.

Teachers from 80 schools who met the criteria of being certified in teaching SWDs and having a civics, social studies, American government, or history class with 50% or more SWDs were recruited for the research. Schools/teachers were randomly assigned to the JMLPE intervention or "business as usual" control condition. All students of teachers in the intervention and control groups were recruited to the study regardless of whether they were SWDs or not. In most instances, SWDs took a WTP class with the general student population. The study examines the effectiveness of the intervention at the school/class/teacher level, and individual students' designation as SWDs was not ascertained. Thirty-six schools from the intervention group and 34 from the control group remained in the study. A total of 2,748 students were enrolled in the research and completed all of the testing. Middle school was defined as grades six through eight, and high school was grades nine through twelve. Of the 1,272 middle school students, 724 received the JMLPE/WTP treatment and 548 were in the control group. There were 1,476 high school students in the study, 949 in the JMLPE/WTP intervention group and 527 in the comparison group.

Pre- and post-program tests were administered online to students in the JMLPE/WTP and control groups. The pretests were proctored by teachers in class at the beginning of the WTP or standard civics class. Posttests were given when the curriculum was completed. Teachers were provided with detailed instructions for administering the tests. Support for the testing was provided by CERL and the state coordinators.

It is worth noting that the present study was fielded in the recent aftermath of the COVID-19 pandemic. Much remains to be learned about the impact of the pandemic on SWDs, especially at the K-12 level, and it may be impossible to fully grasp its implications in the short term (Kaufmann, et al., 2022). There is mounting evidence that the negative impacts of the pandemic on education were felt inordinately by SWDs (UNESCO, 2021) as it became difficult for schools to deliver FAPE (Yell and Katsiyannis, 2024). The quality and quantity of instruction was diminished for many SWDs whose access to school-based supports services, counseling, and mental health resources was limited. Shortened school days and the challenges of remote instruction compounded the deleterious effects of special education teacher shortages. Some SWDs were placed in general education without the necessary instructional resources and attention. SWDs had greater rates of absenteeism, incomplete assignments, and failures than general education students (Aquino and Scott, 2023). Interviews with JMLPE teachers of SWDs reflected these observations, especially the fact that students had fallen behind in their acquisition of basic civics and history content. They reported that students' ability to concentrate and study habits were adversely affected by the pandemic.

Student Characteristics

The gender and race/ethnicity of middle and high school students in the intervention and control groups were similar. (See Table 1.) The middle school WTP group's gender composition was 48% female, 50% male, and 2% non-binary or another gender. The control group was 47% female, 50% male, and 3% non-binary. The high school WTP sample was 49% female, 49% male, and 2% non-binary, and the control group was 48% female, 49% male, and 3% non-binary. The race/ethnicity of the WTP middle school sample had a higher percentage of White students (45%) compared to the control group (35%). The middle school control group had slightly higher percentages of Asian/AAPI, Latine, and multi-racial students than the intervention group. There were small differences in the percentage of Asian/AAPI, Black, White, and multi-racial students in the high school WTP and control groups. Middle school students ranged in age from 12 to 15 years old; the majority of students in the WTP (71%) and control (62%) groups were 13 years old. The high school students were aged 14 to 18. Over 40% of students in both groups were 15 years old, and over 20% were age 17.

Table 1
Students' Gender and Race/Ethnicity

	Middle School		High School	
	WTP	**Control**	**WTP**	**Control**
Gender				
Female	48%	47%	49%	48%
Male	50%	50%	49%	49%
Non-Binary	2%	3%	2%	3%
Race				
Asian/AAPI	5%	7%	12%	9%
Black	15%	14%	29%	24%
Latine	23%	26%	25%	24%
White	45%	35%	26%	30%
Multiple Races	12%	18%	8%	13%
Age				
12	16%	19%	--	--
13	71%	62%	--	--
14	9%	17%	5%	8%
15	4%	2%	44%	42%
16	--	--	19%	18%
17	--	--	26%	24%
18	--	--	6%	8%

Statistical Analysis

Statistical analyses were conducted on the pretest/posttest data to determine if there were statistically significant changes in student outcomes due to the WTP intervention compared to the control group which received a conventional civics curriculum. Contingency table analyses were performed on some variables to illustrate the percentage of cases in categories before and after the intervention. Difference of means tests (paired samples t-tests) were performed to

10

identify within group shifts in the pretest and posttest measures. The tests were performed separately for the middle and high school students. The pretest and posttest mean scores and standard deviations, the difference of pretest/posttest means and significance test, the percentage change in pretest/posttest means, the effect size (ES) based on Hedge's g, the improvement index, and the pretest/posttest correlation and significance test were reported.

Hierarchical linear models were estimated using analysis of covariance (ANCOVA) to determine if there were statistically significant differences in the adjusted posttest scores of the intervention and control group students. ANCOVA was an appropriate model for this analysis as it adjusts for non-equivalence in intervention and control group scores at baseline. Separate ANCOVA models were estimated for middle and high school students. Posttest outcome measures were the dependent variables. Pretest outcome measures and a variable coded for the students' teacher were entered as covariates. Intervention/control group was a fixed factor. ES for the difference of adjusted posttest means between the PC and control groups tests was estimated by Hedges' g. In the ANCOVA models, the adjusted means and standard errors were used in computing the ES.

The percentage difference between pretest and posttest means was reported for the paired samples t-tests and for the adjusted posttest means based on the ANCOVA analysis for the PC and control groups. The percentage change is a useful statistic as it is easily interpreted and accessible to a wide audience. However, as a ratio it can be misleading, especially if the initial value is near zero (Curran-Everett and Williams, 2015), which was rarely the case in this study. The percentage difference supplements other measures of change that are reported, including ES and the U.S. Department of Education's What Works Clearinghouse (WWC) improvement index.

The WWC improvement index was calculated from Hedge's g. As per the WWCs definition: "The improvement index is the average expected change in the percentile rank for an average comparison group student that then receives the intervention (or also the difference in percentile ranks for an average intervention versus comparison group student)."[4] For the within group comparisons, the improvement index indicates the expected change in percentile rank of an average student who receives the WTP curriculum intervention or a standard civics curriculum. For the WTP treatment/control group comparison, the improvement index represents the average expected change in the percentile rank if an average control group member receives the WTP intervention. In other words, it is the difference in percentile ranks for an average student in the WTP group after the intervention compared to the comparison group.

The interpretation of ES 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. Kraft argues that "effects that are small by Cohen's standards are large relative to the impacts of most field-based interventions" (2020: 241). Meta-analyses of more recent well-designed field experiments in education research have found that ESs with

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

11

potentially important consequences are interpreted as having no or small effects using Cohen's guidelines. Kraft suggests that the magnitude of the ES depends on what and how outcomes are measured. Fixed benchmarks, while easy to use, cannot account for differences in study features and outcomes (Kraft, 2020). Comparable studies to the present research use pretest/posttest survey methods to examine student civic learning. Findings for students' civic knowledge outcomes that are not overly aligned with the intervention typically have larger effects than studies of students' civic dispositions, civic skills, and SEL competencies. Thus, it is prudent not to dismiss statistically significant differences with small ESs related to these outcomes.

Civic Knowledge

Americans' basic knowledge of government and politics has been persistently low for decades (Delli Carpini and Keeter, 1996), a trend which has been corroborated by recent studies (Kleinberg and Lau, 2019; CivxNow, 2023). Many students with disabilities lack an understanding of important historical details which emphasizes the need to enhance knowledge in this domain (Garwood, et al., 2020). Civic knowledge encompasses a vast amount of information pertinent to the foundations and institutions of government, political processes, public policies, and laws. Knowledgeable citizens are cognizant of government institutions and processes and how they work. They understand their role in a democratic polity and know their rights and responsibilities in society (Branson and Quigley, 1998; Van Camp and Baugh, 2016). Knowledge has been shown to be a building block, if not a necessary precondition, for civic engagement (Galston, 2004; Delli Carpini and Keeter, 1996). 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; Kleinberg and Lau, 2019). 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).

Civic Content Knowledge

Civic knowledge in this research reflects standard content for civics and social studies classes. To measure students' acquisition of civics content, a knowledge index was constructed of twenty-seven multiple choice items related to the foundations and principles of U.S. government, the U.S. Constitution, government institutions, the organization and function of the federal system, extra-constitutional institutions, such as political parties and the media, political processes, like voting, the roles, rights, and responsibilities of citizens, and the relationship of the U.S. to other nations. These content areas are addressed by the WTP curriculum and standard civics curricula as taught to the control group students. The items were not overly aligned with the WTP curriculum intervention and were based on established measures with known reliability. They were derived from sources, including the National Standards for Civics and Government, the NAEP, and items developed for and used in the JMLP (Owen, Hartzell, and Sanchez, 2020). Each item in the index had four response categories and a "don't know" option. One point was given for each correct item; no points were given for wrong answers or "don't know" responses. The civic knowledge items were combined into identical pretest and posttest additive indexes.

Scores on the indexes ranged from 1 to 27 points. The internal consistency reliability of the indexes based on Cronbach's α was acceptable at .83 for the pretest and .88 for the posttest.[5]

The civic knowledge of middle and high school students who received the WTP curriculum intervention improved significantly from pretest to posttest. (See Table 2.) The WTP students' gains were significantly higher than those in the control group. (See Appendix, Table A1.) The increase in civic knowledge was greater for middle school students than their high school counterparts. This trend may be explained, at least in part, by the fact that more of the material was new to middle school students than high school students so they had more to gain. It is consistent with findings of prior studies showing larger increases in civic knowledge for middle school students than high school students (Owen, 2024).

The mean knowledge score of middle school students in a WTP class increased from a baseline of 8.31 points to 13.63 after the intervention, for an average improvement of 5.32 points. The mean difference was statistically significant at $p \leq .01$. The middle school control group baseline mean score was 8.31 and the posttest score was 10.77, with a mean pretest/posttest difference of 2.39. The pretest/posttest percentage change was 64% for the WTP group compared to 28% for the control group. Using Cohen's conservative guidelines for interpretation of Hedge's g, the ES of 1.15 for WTP middle school students was large and the ES of .51 for the control group was moderate. The corresponding improvement indexes were +38 for the WTP middle school students and +19 for the control group. The ANCOVA analysis revealed an adjusted posttest mean difference between the scores of the middle school WTP and control group students of 2.46, which is statistically significant at $p \leq .01$. The adjusted mean score of the WTP students was 19% higher than that of the control group. The ES of .46 was moderate. The improvement index indicated that the percentile ranking of an average student in the control group would be expected to improve by 14 points if they received the WTP curriculum.

The civic knowledge scores of high school SWDs who took a WTP class improved by 4.22 points from pretest (12.73) to posttest (16.95), a difference that was statistically significant at $p \leq .01$. WTP high school students experienced a 33% increase in knowledge after being exposed to the curriculum. The ES (Hedge's g) of .87 was large and corresponded to an improvement index of +21. The control group students' knowledge increased by 3.23 points from pretest (11.22) to posttest (14.45) which was statistically significant at $p \leq .01$ and represented a 29% change. The ES of .50 was moderate and the improvement index was +19. The knowledge gains for the high school students who were taught the WTP were significantly greater than those for students in the traditional civics class. The difference in the adjusted mean posttest scores resulting from the ANCOVA analysis was 1.58 points and was statistically significant at $p \leq .01$. The WTP students' adjusted posttest mean was 10% higher than that of the control group. The ES was .29 and the improvement index was +11.

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[5]What Works Clearinghouse requires a Cronbach's α of .50 or greater to be acceptable. See Institute of Education Science, U.S. Department of Education, What Works Clearinghouse Module 5, Outcome Measures. Module 5 Outcome Measures (ed.gov)

13

Table 2
Students' Civic Knowledge by Grade Level and Condition
Difference of Means

	Middle School		High School	
	WTP	**Control**	**WTP**	**Control**
Pretest $\bar{\chi}$	8.31	8.38	12.73	11.22
Pretest SD	3.83	3.98	5.07	4.98
Posttest $\bar{\chi}$	13.63	10.77	16.95	14.45
Posttest SD	5.46	5.08	4.98	6.31
$\bar{\chi}$ Difference	5.32	2.39	4.22	3.23
Sign. Difference	.00	.00	.00	.00
Percentage Change	64%	28%	33%	29%
Effect Size	1.15	.51	.87	.50
Improvement Index	+38	+19	+21	+19
Pre/Post Correlation	.55	.50	.54	.38
Sign. Correlation	.00	.00	.00	.00
n	641	496	828	448

Perceptions of Civic Knowledge Gain

Students assessed how much they felt they had learned from their WTP and standard civics class. They were asked if they strongly agree, neither agree or disagree, or disagree with the following four statements: 1) I understand more about American government because of this class, 2) I understand more about the historical events that shape the United States because I took this class, 3) I have a better sense of my rights and responsibilities as a citizen because of this class, and 4) I learned about other races and cultures in this class.

WTP students were more likely than students in the comparison group to report that they understood more about American government after taking their class. (See Table 3.) The findings were especially pronounced for middle school students. Eighty percent of middle schoolers who were taught the WTP curriculum agreed that they understood more about American government compared to 63% in the control group—a difference of 17 percentage points. The WTP/control group difference was statistically significant at p≤.01. Seventy-seven percent of WTP high school students indicated that they understood more about American government compared to 70% of those in the control group (p≤.05).

14

Table 3
Understand More About American Government

	Middle School		High School	
	WTP	**Control**	**WTP**	**Control**
Agree	80%	63%	77%	70%
Neither	18%	30%	20%	24%
Disagree	2%	6%	3%	6%
X^2 Difference Sign.	.00		.05	
n	679	480	901	484

The findings for understanding more about historical events and were similar to the results for American government for middle schoolers. Eighty percent of middle school students reported that they understood more after experiencing the WTP curriculum compared to 61% in the control group. The between-group difference was statistically significant at $p \leq .01$. (See Table 4.) WTP middle schoolers were more likely to report that they had a better understanding of historical events than high schoolers. A greater percentage of WTP high school students indicated that they understood more about historical events than those in the control group. A somewhat smaller percentage of WTP high school students reported that they understood more about historical events (72%) than about American government (77%). A similar pattern was evident for the students who received the conventional curriculum, with 66% indicating that they understood more about historical events compared to 70% for American government. The difference between the high school WTP and control groups for understanding historical events was significant at $p \leq .05$.

Table 4
Understand More about Historical Events

	Middle School		High School	
	WTP	**Control**	**WTP**	**Control**
Agree	80%	61%	72%	66%
Neither	16%	31%	24%	30%
Disagree	4%	8%	4%	4%
X^2 Difference Sign.	.00		.05	
n	679	480	901	484

The WTP students were more likely to report that they had a better sense of their rights and responsibilities as citizens after taking their class than the control group. (See Table 5.) Seventy-eight percent of WTP middle schoolers agreed with this statement compared to 67% in the control group. The gap between the intervention and control group for high school students again was somewhat smaller, with 76% of WTP students agreeing that they had a better sense of their rights as citizens compared to 69% of those who took a standard civics class. The differences between the WTP and control group students were statistically significant for both grade levels at $p \leq .01$.

15

Table 5
Better Sense of Citizen Rights and Responsibilities

	Middle School		High School	
	WTP	Control	WTP	Control
Agree	78%	67%	76%	69%
Neither	19%	26%	21%	25%
Disagree	3%	7%	3%	6%
X^2 Difference Sign.	.00		.01	
n	681	465	901	486

Although the majority of students agreed that they had learned about other races and cultures in their classes, the findings were less robust than for the other three items for both the intervention and control groups. (See Table 6.) WTP middle school students (67%) were notably more likely to agree that they learned about other races and cultures than students in conventional civics classes (55%). The difference was statistically significant at p≤.01. The WTP (55%) and control group (56%) high school students' responses to this item were nearly identical. (See Table 6.)

Table 6
Learned about Other Races and Cultures

	Middle School		High School	
	WTP	Control	WTP	Control
Agree	67%	55%	55%	56%
Neither	27%	33%	33%	33%
Disagree	6%	11%	12%	11%
X^2 Difference Sign.	.00		NS	
n	681	479	901	486

Civic Dispositions

Civic dispositions are traits, attitudes, and ingrained "habits of the heart" that are consistent with the common good and are central to the functioning of a healthy democracy (Tocqueville,1838; Crittenden and Levine, 2018). Quality civic education can contribute to students' development of the capacities that support democratic citizenship. It provides young people with deep educational experiences that enable them to understand their rights and responsibilities and develop skills necessary to engage effectively in political and civic life. It can open opportunities for students to apply what they learn so that they can develop the skills integral to responsible and effective citizenship (Branson, 1998; Branson and Quigley, 1998). Civics instruction in middle and high school can impart lasting democratic proclivities and prime citizenship orientations that develop over a lifetime. (Pasek et al., 2008, Kahne and Sporte, 2008/9). Quality programs can lead students to develop greater civic commitments and capacities (Kahne and Middaugh, 2008). Research has demonstrated increases in the development of civic

dispositions among students who have been taught the WTP curriculum (Owen, 2015; Owen, Hartzell, and Sanchez, 2020; Owen and Irion-Groth, 2020).

Civic Attentiveness

Civic attentiveness is a measure of students' awareness of and concern about issues and the extent to which they monitor political affairs. A civic attentiveness index was created from two survey items: 1) I care about political issues facing the country (disagree, neither agree nor disagree, agree), and 2) I follow government and politics in the media most days (disagree, neither agree nor disagree, and agree). The items were combined to form pre/post additive indexes that ranged from 1 to 5. The index reliability (Cronbach's α) was .60 for the pretest and .61 for the posttest which is acceptable based on WWC's standards.

Students who were taught the WTP curriculum became more interested in and attentive to politics, while the dispositions of students in the control group did not change from pretest to posttest. (See Table 7.) The trend was consistent for middle and high school students. The mean score on the civic attentiveness index for middle schoolers who received WTP increased by .19 points from 3.03 on the pretest to 3.22 on the posttest, a gain that was significant at p≤.01. The percentage change from pretest to posttest was 6%, the ES was .16, and the improvement index was +6. The WTP high school students' average pretest score (3.26) was higher than that of their middle school counterparts, but the trend was similar. The high schoolers' posttest mean (3.46) increased by .20, and the pretest/posttest mean difference was statistically significant at p≤.01. The percentage increase for WTP high schoolers was 6%, the ES was .17, and the improvement index was +6. The ANCOVA analysis did not show significant differences between the WTP and control groups' adjusted posttest scores.

Table 7
Students' Interest and Attention by Grade Level and Condition
Difference of Means

	Middle School		High School	
	WTP	**Control**	**WTP**	**Control**
Pretest $\bar{\chi}$	3.03	3.06	3.26	3.27
Pretest SD	1.09	1.14	1.11	1.11
Posttest $\bar{\chi}$	3.22	3.12	3.46	3.28
Posttest SD	1.12	1.13	1.16	1.13
$\bar{\chi}$ Difference	.19	.06	.20	.01
Sign. Difference	.00	NS	.00	NS
Percentage Change	6%	2%	6%	3%
Effect Size	.16	.04	.17	.01
Improvement Index	+6	+1	+6	0
Pre/Post Correlation	.42	.30	.45	.38
Sign. Correlation	.00	.00	.00	.00
n	663	464	880	465

17

The influence of students' WTP or standard civics class on their political interest was examined. Students were asked: Since taking this class, are you more or less interested in government and public affairs? (more interested, about the same, less interested.) Middle and high school students who were taught WTP were more inclined to say that they were more interested than students who received the standard curriculum. (See Table 8.) The difference between the WTP and control groups was greatest for middle schoolers. Forty-one percent of WTP middle school students reported being more interested in government and public affairs compared to 23% of control group students, a difference of 18 percentage points. Seven percent of WTP students were less interested as opposed to 15% in the control group. The difference between the middle school groups was statistically significant at p≤.01. Thirty-nine percent of the WTP high school students became more interested in politics compared to 33% in the control group.

Table 8
Interest in Government and Public Affairs

Since Taking this class, are you more or less interested in government and public affairs?				
	Middle School		High School	
	WTP	Control	WTP	Control
More Interested	41%	23%	39%	33%
About the Same	53%	62%	54%	56%
Less Interested	7%	15%	7%	10%
X^2 Difference Sign.	.00		.07	
n	679	470	897	485

Following their civics class, students were asked: How important is it for you to keep informed about what is going on in your community? (very, somewhat, not very important). The percentage of WTP students in both grade levels responding that keeping informed was very important was higher than for students in the control group. The percentage of students who felt it was very important to keep informed was greater for high schoolers than middle schoolers. (See Table 9.) Thirty-two percent of WTP middle schoolers responded that keeping informed was very important compared to 26% of the control group. Twice as many control group middle schoolers (16%) than WTP students (8%) felt that keeping informed was not very important. Forty-two percent of WTP high schoolers felt that keeping informed was very important compared to 33% of the control group, an 11-percentage point difference. Six percent of WTP high school students felt that keeping informed was not very important compared to 10% of the control group. The differences between the WTP and control groups for both middle and high school students were statistically significant at p≤.01.

18

Table 9
Keep Informed

How important is it for you to keep informed about what is going on in your community?				
	Middle School		**High School**	
	WTP	**Control**	**WTP**	**Control**
Very Important	32%	26%	42%	33%
Somewhat Important	60%	58%	52%	57%
Not Very Important	8%	16%	6%	10%
X^2 Difference Sign.	.00		.00	
n	678	467	898	486

Political Efficacy

Internal political efficacy is a person's belief that their actions can influence government and that they can make a difference in their community. Civic education that employs active learning pedagogies, including primary source analysis, simulations, and role playing can increase students' sense of efficacy (Halverson, Tucker, and Smith, 2024). Students' development of a sense of efficacy through curricula that involves community engagement and problem-solving can increase civic attentiveness and provide a pathway to future political participation and voting (Pasek, et al., 2008; Willeck and Mendelberg, 2022). WTP, which employs these learning strategies, has been shown to positively impact high-need students' political self-efficacy (Owen, Hartzell, and Sanchez, 2020).

Students' political efficacy was measured by their agreement with the statement: I have a say about what government does (agree, neither agree nor disagree, disagree). The percentage of students who agreed that they have a say in government increased significantly for the WTP middle and high school students. The findings were more pronounced for the high school students than the middle school students. There was no meaningful change for the students who received a conventional civics class. (See Table 10.) The percentage of WTP middle school students who agreed that they have a say in government improved from 22% on the pretest to 28% on the posttest, which was commensurate with the change in the percentage who disagreed. In contrast, 22% of the control group students agreed on the pretest and 21% on the posttest. There was a notable 19-percentage point increase in efficacy for the WTP high school students. Twenty percent of them agreed that they had a say on the pretest compared to 39% on the posttest. There was a slight uptick in efficacy for the control group high school students from 24% on the pretest to 28% on the posttest, but the change was not statistically significant. The chi square tests of the difference between the WTP and control groups were statistically significant at p≤.01 for both grade levels.

Table 10
Pretest/Posttest Political Efficacy by Grade Level and Condition

Middle School				
	WTP		**Control Group**	
	Pretest	**Posttest**	**Pretest**	**Posttest**
Agree	22%	28%	22%	21%
Neither	49%	50%	49%	50%
Disagree	28%	22%	28%	29%
X^2 Pre/Post Diff. Sign.	.00		NS	
n	675		470	

High School				
	WTP		**Control**	
	Pretest	**Posttest**	**Pretest**	**Posttest**
Agree	20%	39%	24%	28%
Neither	52%	45%	48%	47%
Disagree	28%	16%	28%	25%
X^2 Pre/Post Diff. Sign.	.00		NS	
n	896		488	

Difference of means tests provided more depth to this analysis and reflected the contingency table findings. WTP middle and high school students mean efficacy score increased significantly from pretest to posttest, while there was no change for control group students. (See Table 11.) The increase in efficacy was greater for WTP high school students than their middle school counterparts. The middle school student mean increased from 1.92 to 2.05, for a difference of .13, and the t-test was statistically significant at p≤.01. The pretest/posttest percentage change was 7%, the ES was .14, and the improvement index was +6. The adjusted posttest mean difference between the WTP and control group middle school students was not statistically significant based on the ANCOVA analysis. (See Appendix, Table A2.) WTP high school students' average efficacy score increased from 2.05 to 2.23 for a difference of .18 that was significant at p≤.01. The percentage change was 9%, the ES was .21, and the improvement index was +8. The ANCOVA analysis demonstrated that the difference in the adjusted posttest means between the high school WTP (2.22) and control groups (2.07) was statistically significant. The WTP group's adjusted posttest mean was 7% higher than that of the control group. The ES of .25 corresponded to an improvement index of +11. While the magnitude of the effect of the WTP intervention was small, it is noteworthy, especially as the efficacy scores of the students who received the standard civics class did not change. SWDs often do not feel that they have a voice, so moving the needle on political efficacy is a challenge.

Table 11
Students' Political Efficacy by Grade Level and Condition
Difference of Means

	Middle School		High School	
	WTP	**Control**	**WTP**	**Control**
Pretest $\bar{\chi}$	1.92	1.92	2.05	2.01
Pretest SD	.78	.73	.71	.72
Posttest $\bar{\chi}$	2.05	1.95	2.23	2.03
Posttest SD	.71	.71	.71	.73
$\bar{\chi}$ Difference	.13	.03	.18	.02
Sign. Difference	.00	NS	.00	NS
Percentage Change	7%	1%	9%	1%
Effect Size	.14	.04	.21	.02
Improvement Index	+6	+1	+8	+1
Pre/Post Correlation	.20	.36	.28	.31
Sign. Correlation	.00	.00	.00	.00
n	661	437	878	465

Civic Skills

An effective and engaged citizenry must develop the cognitive and participatory skills necessary for carrying out their duties as citizens (Branson and Quigley, 1998). Civic skills are the proficiencies that enable people to participate actively and responsibly as democratic citizens. The development of civic skills is essential for critical thinking that facilitates collective action (Civic Mission of Schools, 2011). Cognitive civic skills encompass how efficacious students feel in understanding or engaging in civic and political life. They enable people to call upon their civic knowledge and dispositions to take part in politics (Patrick, 2002; Kirlin, 2003). Participatory civic skills constitute the range of proficiencies required for democratic engagement. They encompass behaviors beneficial to the development of personal agency that promotes civic engagement (Patrick, 2002; Winthrop, 2020). Participatory skills are associated with following public events and issues as well as taking action to improve community conditions. These skills include listening to and processing diverse views on issues, speaking openly, expressing opinions, working collaboratively to solve problems, and advocating on behalf of a cause. Other perspectives incorporate the notions of cognitive and participatory skills while highlighting the need for critical reasoning skills that facilitate democratic decision-making. These views emphasize the need for citizens to develop negotiating and coalition building skills that can enable reaching consensus to affect positive change. Civic skills are bolstered when students develop research, inquiry, communication, and leadership capabilities (Brammer, et al., 2011; Ata, 2019), all of which are embedded in the WTP curriculum.

Civic SEL is an emerging construct that integrates students' development of civic capacity and social-emotional learning.[6] SEL is the process through which people develop the

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[6] The construct of Civic SEL is being developed by the author, Donna P. Phillips, and Alissa Irion-Groth as a join initiative of CERL and the Center.

knowledge, skills, and attitudes conducive to achieving personal and collective goals, maintaining positive relationships, and making meaningful societal connections (CASEL, 2020). Civic SEL is the integration of civics content and methods with SEL competencies that promote engaged citizenship. Civic SEL encompasses a range of skills that are necessary for productive and effectual participation in democracy. A core objective of the JMLPE is to foster students' acquisition of SEL competencies imbedded in the civics curriculum, including communication and civil discussion skills and teamwork and collaboration skills. These Civic SEL competencies can be developed using the WTP curriculum through class discussion, group work, and hands-on activities that emphasize responsible decision-making. The simulated congressional hearings provide opportunities for students to work as a unit to address questions by evaluating evidence, respectfully considering different perspectives, and expressing ideas and viewpoints in a civil environment. The Center's strategy is to incorporate CASEL's SEL competencies into the JMLPE curriculum and instructional practices rather than treating them as stand-alone curricular components (Owen and Phillips, 2023).

Communication and Civil Discourse Skills

A central aim of the JMLPE/WTP curriculum intervention is to have students develop fundamental communication and civil discourse skills. Students responded to six survey items related to this dimension of Civic SEL: 1) I am comfortable speaking in front of a group, 2) I am willing to share my views with others, 3) I put a lot of effort into getting involved in class discussions, 4) I care about other people's points of view, 5) When others disagree with me, I respect their views, and 6) I am good at solving problems. The items were combined to form additive pretest and posttest indexes that ranged from 1 to 12. The pretest reliability (Cronbach's α) was .70 and the posttest reliability was .75.

The civil discourse skills of students in WTP classes improved significantly after the intervention. (See Table 12.) The findings were stronger for high school students than middle schoolers. Middle school WTP students' average score on the civil discourse index increased from 7.39 on the pretest to 7.97 on the posttest for a mean difference of .58 which was statistically significant at $p \leq .01$. The pretest/posttest percentage change was 8%, the ES was .22, and the improvement index was +9. The civil discourse index scores of WTP high school students improved from a pretest average of 7.38 to a posttest average of 8.26. The mean difference of .88 was statistically significant at $p \leq .01$. The ES was notably larger than for middle school students at .34. After being exposed to the WTP curriculum intervention, the percentile ranking of the average high school student improved by 13 points. Control group students in middle and high school made small gains in civil discourse skills. While the increase in civil discourse skills for the WTP middle school students were greater than for the control group, the between group difference in the adjusted mean posttest scores was not statistically significant based on the ANCOVA analysis (See Appendix, Table A3.) However, WTP high school students' adjusted mean posttest score (7.96) was significantly greater than that of the control group (7.22). The WTP group's posttest mean civil discourse index score was 9% higher than the control group's score. The ES was .32 which corresponds to an improvement index of +13.

22

Table 12
Students' Communication and Civil Discourse Skills by Grade Level and Condition
Difference of Means

	Middle School		High School	
	WTP	**Control**	**WTP**	**Control**
Pretest $\bar{\chi}$	7.39	6.79	7.38	6.51
Pretest SD	2.61	2.55	2.49	2.50
Posttest $\bar{\chi}$	7.97	7.00	8.26	6.71
Posttest SD	2.38	2.68	2.46	2.96
$\bar{\chi}$ Difference	.58	.21	.88	.20
Sign. Difference	.00	.04	.00	.05
Percentage Change	8%	3%	12%	3%
Effect Size	.22	.07	.34	.07
Improvement Index	+9	+3	+13	+3
Pre/Post Correlation	.46	.47	.45	.47
Sign. Correlation	.00	.00	.00	.00
n	700	500	882	519

Teamwork and Collaboration Skills

Students' teamwork and collaboration skills were measured by their responses to four survey items: 1) I like to work with other students on projects, 2) I like to share my ideas, 3) I get along well with people who are different from me, and 4) It's important to arrive at an agreement or consensus when working with others. Respondents indicated that they rarely or never, sometimes, or always felt this way. The items were combined to form an additive index that ranged from 1 to 9. The pretest internal consistency reliability (Cronbach's α) was .66 for the pretest and .76 for the posttest.

The scores on the teamwork and collaboration index for middle and high school students who were taught WTP improved significantly. (See Table 13.) The increase was greater for middle school students than high schoolers. Middle school students' mean score on the index increased from 3.62 on the pretest to 4.37 on the posttest, a mean difference of .75 that was statistically significant at p≤.01. The pretest/posttest score changed by 21%. The ES was .29 which corresponded to an improvement index of +11. In contrast, there was no perceptible change in the pretest/posttest mean index scores for middle school students in the control group. The results of the ANCOVA analysis revealed a statistically significant difference of .63 in the adjusted posttest mean index scores favoring the WTP middle school students (4.59) over the control group students (3.95). (See Appendix, Table A4.) The WTP students' mean posttest score was 14% higher than that of the control group. The ES of .27 converted to an improvement index of +11. The WTP high school students' mean index score improved from pretest (3.89) to posttest (4.46) for a change of .56 that was statistically significant (p≤.01). The mean index score increased by 25%. The ES for the WTP high school students was .21 corresponding to an improvement index of +8. The control group high school students had more modest gains on the teamwork and collaboration index, with a pretest (4.15)/posttest (4.56) mean difference of .41 that was statistically significant at p≤.01. Their mean index score increased by 10%, the ES was

23

.17, and the improvement index was +6. The ANCOVA model showed no meaningful difference in the adjusted posttest mean scores of the WTP treatment and control group.

Table 13
Students' Teamwork and Collaboration Skills
by Grade Level and Condition
Difference of Means

	Middle School		High School	
	WTP	**Control**	**WTP**	**Control**
Pretest $\bar{\chi}$	3.62	4.25	3.89	4.15
Pretest SD	1.94	2.03	1.88	1.85
Posttest $\bar{\chi}$	4.37	4.27	4.46	4.56
Posttest SD	2.21	2.19	2.28	2.11
$\bar{\chi}$ Difference	.75	.01	.56	.41
Sign. Difference	.00	NS	.00	.00
Percentage Change	21%	0	15%	10%
Effect Size	.29	.01	.21	.17
Improvement Index	+11	0	+8	+6
Pre/Post Correlation	.22	.22	.17	.26
Sign. Correlation	.00	.00	.00	.00
n	689	480	919	477

Civic Engagement

Civic engagement is voluntary involvement in community affairs that is put forth in the public interest. It constitutes active participation that is collaborative and works toward addressing areas of local, national, and global concern.[7] It encompasses a wide range of activities—overtly political and non-political—that promote the public good and are intended to improve the quality of life in communities and society (Carney, et al., 2023). Traditional forms of civic engagement include voting and participation in the electoral process, engaging in discussion and debate, participating in community affairs, volunteering, advocacy, and protesting. People who are civically engaged feel it is their responsibility to address the problems of the larger society and promote a positive quality of life in their communities (Ehrlich, 2000). An engaged citizen has the ability, agency, and opportunity to act through a variety of channels (Delli Carpini, 2000; Bowen, Gordon, and Chojnacki, 2017).

Civic education can foster engagement through the development of the requisite knowledge, skills, dispositions, norms, and behaviors. Through the pedagogies of citizenship, teachers can enable their classrooms to serve as important sites for discussion about what democracy means and models for what democratic participation entails (Cohen, Pope, and Wong, 2021). The WTP curriculum provides a foundation for engagement as students gain an understanding of how government and political processes work. They get practical experience in

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[7] Definition developed by the Media and Civic Engagement class, Georgetown University, spring semester 2024.

democratic action through their preparation for and participation in simulated congressional hearings.

Students were asked on the pretest and posttest if they agreed with the proposition: I feel prepared to participate in my community (agree, neither agree nor disagree, disagree). The percentage of students who agreed that they were prepared to participate increased significantly from pretest to posttest for the WTP middle and high school students. (See Table 14.) Thirty percent of students in both grade levels agreed with the statement on the pretest. The percentage of students who felt prepared to engage increased to 38% for middle schoolers and 39% for high schoolers. The pretest/posttest difference for both grade levels was statistically significant at $p \leq .01$. The percentage of middle school students in the control group who felt prepared to participate in their community changed little from pretest to posttest while the percentage of high school students decreased. In fact, the percentage of control group students in both middle and high school who did not feel prepared to participate increased slightly from pretest to posttest. These trends were replicated by difference of means tests.

Table 14
Pretest/Posttest Prepared to Participate by Grade Level and Condition

Middle School				
	WTP		**Control Group**	
	Pretest	**Posttest**	**Pretest**	**Posttest**
Agree	30%	38%	28%	30%
Neither	57%	52%	57%	53%
Disagree	13%	10%	15%	17%
X^2 Pre/Post Diff. Sign.	.00		.00	
n	672		473	

High School				
	WTP		**Control**	
	Pretest	**Posttest**	**Pretest**	**Posttest**
Agree	30%	39%	30%	27%
Neither	58%	53%	55%	54%
Disagree	12%	8%	15%	19%
X^2 Pre/Post Diff. Sign.	.00		.00	
n	897		489	

After their civics class, students were asked if they plan on voting in elections if they were eligible. WTP middle and high school students were more likely than those in the control group to agree with the statement. (See Table 15.) Sixty-five percent of WTP middle and high school students planned on voting if they were eligible compared to middle school (51%) and high school (52%) students who received the traditional civics curriculum. The difference between the WTP and control group was 14 percentage points for middle schoolers and 13 percentage points for high school students. The gaps were statistically significant at $p \leq .01$ for both grade levels.

25

Table 15
Plan on Voting

I plan on voting in elections if I am eligible.				
	Middle School		**High School**	
	WTP	**Control**	**WTP**	**Control**
Agree	65%	51%	65%	52%
Neither	29%	36%	29%	38%
Disagree	6%	13%	6%	10%
X^2 Difference Sign.	.00		.00	
n	681	465	903	487

Summary of Findings

The findings of this research indicated that SWDs can successfully navigate an adapted civic education curriculum and achieve significant, positive outcomes in civic knowledge, skills, and dispositions. The magnitude of the effects of the WTP and standard civics curricular interventions based on the WWC's improvement index is depicted in Table 16. The improvement index indicates the change in percentile rank of an average student in the group after taking a WTP or standard civics class. The impact of the curricula was greatest for civic knowledge for all groups. The improvements in civic attentiveness, political efficacy, communication and civil discourse skills, and teamwork and collaboration skills were larger for the WTP students than the control group. The changes in civic dispositions for the control group were negligible. In general, the gains in Civic SEL skills were slightly higher than the increases in civic dispositions for the WTP students.

Table 16
Improvement Index for Measures of Civic Knowledge, Dispositions, and Skills

	Middle School		**High School**	
	WTP	**Control**	**WTP**	**Control**
Civic Knowledge	+38	+19	+21	+19
Civic Attentiveness	+6	+1	+6	0
Political Efficacy	+6	+1	+8	+1
Communication	+9	+3	+13	+3
Teamwork	+11	0	+8	+6

The first hypothesis tested in this study was supported as the civic knowledge of JMLPE/WTP middle and high school students increased markedly after taking the class. The increase in civic knowledge for WTP middle and high school students was significantly greater than that of the control group which supported the second hypothesis. This trend was augmented by WTP students' perceptions that they had a better understanding of American government, historical events, and their rights and responsibilities as citizens after their class.

26

The gains in civic dispositions were smaller than for knowledge, but this trend has been consistently observed for the general student population and students without disabilities (Halverson, Tucker, and Smith, 2024; Muetterties, DiGiacomo, and New, 2022). Middle and high school students made significant improvements in paying attention to politics and issues following their WTP experience which supports the third hypothesis. Students in the control group made no significant gains in this domain. However, the differences between the WTP and control groups on civic attentiveness were not significant. A higher percentage of WTP students reported that they became more interested in government and public affairs since taking their class than those enrolled in standard civics. Similarly, a greater percentage of WTP students than those in the control group felt that keeping informed about what is going on in their community was very important post intervention. In addition, WTP students' belief that they have a say in what government does increased significantly following their class. The improvement in efficacy was greater for high school students than middle schoolers. There was no change in political efficacy for control group students. The WTP/control group difference in efficacy was significant only for high school.

JMLPE/WTP students' communication and civil discourse skills and their teamwork and collaboration skills improved significantly over the course of the study in support of the fifth hypothesis. The findings for communication skills were more robust for WTP high school students than their middle school counterparts. Small gains in communication and discourse skills were observed for the control group. The difference between the WTP and control group scores for high school students was statistically significant as specified by the sixth hypothesis. WTP middle schoolers' improvement in teamwork and collaboration skills was greater than for high school students. There was no pre/post difference for the middle school control group. High school students who took a standard civics class made significant improvements in their collaboration skills, but they were smaller than for WTP students. The percentage of WTP students who felt prepared to participate in their community increased significantly after their class, which was not the case for the control group. WTP students also were more likely than those who took a standard civics test to plan on voting in elections if they are eligible.

Conclusion

Clarion calls for quality civic education *for all students* have resounded in recent years and have yielded impressive initiatives, notably EAD. However, to date, "inclusive" civic education has sidelined SWDs in practice (Cairn, 2021; Urban, 2018; Ho, Eaton, and Mitra, 2020) and in research (Bueso, 2022; Garwood, et al., 2020). The challenges to providing quality civic education to SWDs are substantial and serious. Schools face a lack of teachers with the appropriate credentials and training, limitations on classroom time for civics, difficulty in providing accommodations, and a scarcity of resources for such efforts. The paucity of evidence-based research on civic education for SWDs makes it difficult for educators to understand what works in the classroom so that they can successfully implement a program of instruction.

Improving teacher training and the adaptation of civics curricula to focus on citizenship skills can work to mitigate these constraints (Urban, 2018) and are the objectives that the JMLPE is intended to achieve. The PD program and the adapted WTP curriculum intervention were designed to provide resources for special education teachers with large percentages of SWDs in

their civics classes so that they can successfully convey civic competencies to all their students. This research demonstrates that civic education providing teachers with the training and tools to educate SWDs for democracy can yield positive civic outcomes.

The long-term consequence of limited primary and secondary school civic education for SWDs is the continued marginalization of members of the disability community. The dearth of civic education, when coupled with factors such as reduced access to transportation, low employment, income, and education levels, and lack of accommodations for meeting attendance, voting, and other activities, can deter people with disabilities from civic engagement throughout their lives (Schur and Kruse, 2021; Ho, Eaton, and Mitra, 2020). People who acquire the necessary knowledge and skills are more likely to engage in civic life and to advocate for themselves. The results of this study suggest that quality civic education potentially can narrow the civic empowerment and engagement gap for people with disabilities.

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Table A1
ANCOVA Analysis of Students' Civic Knowledge

Middle School							
	Pretest		Posttest (Unadjusted)		Posttest (Adjusted)		n
	Mean	SE Mean	Mean	SE Mean	Mean	SE Mean	
WTP	8.31	.15	13.63	.21	13.26	.20	641
Control	8.38	.19	10.77	.24	11.31	.25	496

Adj. $\bar{\chi}$ Group Diff.	SE Difference	Sig. Difference	Percentage Difference	Effect Size	Improvement Index
1.95	.36	.00	15%	.37	+14

Source	SS	df	Mean Square	F	Sig.	Partial η^2
WTP/Control	2,082.31	1	2,082.31	102.21	.00	.09
Teacher	10.87	1	10.87	.534	NS	.00
Pretest Knowledge	8,445.45	1	8,445.45	414.58	.00	.27

High School							
	Pretest		Posttest (Unadjusted)		Posttest (Adjusted)		n
	Mean	SE Mean	Mean	SE Mean	Mean	SE Mean	
WTP	12.73	.17	16.95	.17	16.63	.17	828
Control	11.22	.23	14.45	.29	15.04	.23	448

Adj. $\bar{\chi}$ Group Diff.	SE Difference	Sig. Difference	Percentage Difference	Effect Size	Improvement Index
1.58	.29	.00	10%	.29	+11

Source	SS	df	Mean Square	F	Sig.	Partial η^2
WTP/Control	691.54	1	691.54	29.50	.00	.02
Teacher	177.06	1	177.06	7.55	.00	.01
Pretest Knowledge	8,399.72	1	8,399.72	358.38	.01	.22

Table A2
ANCOVA Analysis of Students' Political Efficacy

Middle School							
	Pretest		Posttest (Unadjusted)		Posttest (Adjusted)		n
	Mean	SE Mean	Mean	SE Mean	Mean	SE Mean	
WTP	1.92	.02	2.05	.03	2.03	.03	661
Control	1.92	.03	1.95	.03	1.98	.04	437
Adj. $\bar{\chi}$ Group Diff.	SE Difference		Sig. Difference		Percentage Difference	Effect Size	Improvement Index
.05	.05		NS		2%	.06	+2
Source		SS	df	Mean Square	F	Sig.	Partial η^2
WTP/Control		.36	1	.36	.77	NS	.00
Teacher		38.74	1	38.74	83.23	NS	.00
Pretest Teamwork		.74	1	.74	1.59	.00	.07
High School							
	Pretest		Posttest (Unadjusted)		Posttest (Adjusted)		n
	Mean	SE Mean	Mean	SE Mean	Mean	SE Mean	
WTP	2.05	.71	2.23	.70	2.22	.02	878
Control	2.01	.73	2.03	.73	2.07	.03	465
Adj. $\bar{\chi}$ Group Diff.	SE Difference		Sig. Difference		Percentage Difference	Effect Size	Improvement Index
.15	.04		.00		7%	.25	+10
Source		SS	df	Mean Square	F	Sig.	Partial η^2
WTP/Control		6.13	1	6.13	13.22	.00	.01
Teacher		3.62	1	3.62	7.78	.01	.09
Pretest Teamwork		59.27	1	59.27	127,99	.00	.00

Table A3
ANCOVA Analysis of Students' Communication and Civil Discourse Skills

Middle School						
	Pretest		Posttest (Unadjusted)		Posttest (Adjusted)		n
	Mean	SE Mean	Mean	SE Mean	Mean	SE Mean	
WTP	7.39	.09	7.97	.09	7.64	.09	700
Control	6.79	.11	7.00	.11	7.51	.11	500

Adj. $\bar{\chi}$ Group Diff.	SE Difference	Sig. Difference	Percentage Difference	Effect Size	Improvement Index
.11	.16	NS	2%	.05	+2

Source	SS	df	Mean Square	F	Sig.	Partial η^2
WTP/Control	2.01	1	2.01	.42	NS	.00
Teacher	168.48	1	168.48	35.01	.00	.03
Pretest Discourse	1,387.42	1	1,387.42	288.21	.00	.19

High School						
	Pretest		Posttest (Unadjusted)		Posttest (Adjusted)		n
	Mean	SE Mean	Mean	SE Mean	Mean	SE Mean	
WTP	7.38	.08	8.26	.82	7.96	.08	882
Control	6.51	.11	6.71	.13	7.22	.10	519

Adj. $\bar{\chi}$ Group Diff.	SE Difference	Sig. Difference	Percentage Difference	Effect Size	Improvement Index
.73	.13	.00	9%	.32	+13

Source	SS	df	Mean Square	F	Sig.	Partial η^2
WTP/Control	153.13	1	153.13	29.52	.00	.02
Teacher	554.79	1	554.79	106.91	.00	.07
Pretest Discourse	1,793.34	1	1,793.34	345.60	.00	.20

Table A4
ANCOVA Analysis of Students' Teamwork and Collaboration Skills

Middle School							
	Pretest		Posttest (Unadjusted)		Posttest (Adjusted)		n
	Mean	SE Mean	Mean	SE Mean	Mean	SE Mean	
WTP	3.62	.07	4.37	.08	4.59	.09	689
Control	4.25	.09	4.27	.10	3.95	.11	480
Adj. $\bar{\chi}$ Group Diff.	SE Difference		Sig. Difference		Percentage Difference	Effect Size	Improvement Index
.63	.16		.00		14%	.27	+11
Source	SS		df	Mean Square	F	Sig.	Partial η^2
WTP/Control	70.24		1	70.24	15.31	.00	.01
Teacher	70.43		1	70.43	15.35	.00	.01
Pretest Teamwork	227.46		1	227.46	49.60	.00	.04
High School							
	Pretest		Posttest (Unadjusted)		Posttest (Adjusted)		n
	Mean	SE Mean	Mean	SE Mean	Mean	SE Mean	
WTP	3.89	.06	4.46	.07	4.49	.07	919
Control	4.15	.08	4.56	.09	4.49	.10	477
Adj. $\bar{\chi}$ Group Diff.	SE Difference		Sig. Difference		Percentage Difference	Effect Size	Improvement Index
.00	.13		NS		--	--	--
Source	SS		df	Mean Square	F	Sig.	Partial η^2
WTP/Control	.002		1	.002	.00	NS	.00
Teacher	4.48		1	4,48	.94	NS	.00
Pretest Teamwork	277.63		1	277.63	58.09	.00	.04