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Debate Centered Civics Education: Using AI to Teach Future Ready Skills and Better Prepare Students for College, Careers, and Civic Life

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Abstract. Debate-centered civics education is a powerful pedagogical approach that fosters future-ready skills such as critical thinking, communication, and problem-solving. In an era where artificial intelligence (AI) is reshaping education, integrating AI-driven tools into debate instruction has the potential to enhance student learning and engagement. This study explores the role of debate-centered civics education in preparing students for college, careers, and informed civic participation by utilizing AI to refine argumentation and analytical reasoning skills. The study is grounded in experiential learning theory (Dewey, 1938), social constructivism (Vygotsky, 1978), Bloom's taxonomy (1956), deliberative democratic theory (Hogan et al., 2017), and connectivism (Siemens, 2005), all of which emphasize active learning and critical discourse as essential to intellectual and civic development. Through a case study methodology, this research examines how AI-enhanced debate programs impact student performance, civic engagement, and digital literacy. Data will be collected through classroom observations, AI-driven feedback analysis, and interviews with educators and students. Findings from this study will contribute to educational practice by providing insights into how debate-centered instruction can be optimized with AI tools to improve student argumentation and engagement. The results will also inform policy recommendations for integrating debate-based civics education into K-12 curricula to equip students with the skills necessary to navigate an increasingly digital and complex democratic landscape.

Keywords. debate, AI, civics education, critical thinking, engagement

Introduction

The need for robust civics education has never been more urgent. In an increasingly polarized society, the ability to engage in reasoned discourse, evaluate evidence critically, and communicate effectively is essential for informed and active citizenship (Litan, 2020). Traditional civics instruction often fails to provide students with the interactive, inquiry-based learning experiences necessary to develop these competencies (Hogan et al., 2017). As a result, many students graduate without the civic literacy and argumentation skills required for democratic participation, higher education, and the workforce (Pontes, Henn, & Griffiths, 2017).

Debate-centered civics education has emerged as a promising instructional strategy to address this gap. Research indicates that structured debate fosters higher-order thinking,

enhances student engagement, and improves students' ability to construct and defend arguments (Kennedy, 2007; Mezuk et al., 2011). Moreover, participation in debate programs has been linked to increased academic achievement, leadership development, and civic awareness (Shackelford, Scott, & Mezuk, 2019). By encouraging students to examine multiple perspectives and engage in deliberative discourse, debate-centered instruction helps cultivate the analytical and communication skills necessary for success in college, careers, and civic life (De Groot, 2018).

The integration of AI into debate-centered civics education offers additional opportunities to enhance learning outcomes. AI-powered tools can provide real-time feedback on argumentation, suggest evidence-based counterarguments, and expose students to diverse viewpoints, thereby deepening their critical thinking and digital literacy (Zhang, 2023). Given AI's increasing role in shaping information ecosystems, equipping students with the ability to discern credible sources and construct reasoned arguments is more critical than ever (Siemens, 2005). This study investigates the potential of AI-enhanced debate instruction to improve students' reasoning skills, civic engagement, and preparedness for an AI-driven world.

Theoretical framework

Dewey's experiential learning theory posits that students learn best through direct experience and reflection. Debate aligns with this theory by actively engaging students in civic discourse, allowing them to apply theoretical concepts to real-world issues. Through structured debate, students critically analyze policies, construct arguments, and develop advocacy skills, fostering deeper civic engagement (Baines, Medina, & Healy, 2023).

Vygotsky's theory of social constructivism emphasizes learning as a social process, where interaction with peers plays a crucial role in cognitive development. Debate fosters collaborative learning by requiring students to articulate, defend, and refine their perspectives through structured discourse. The exchange of ideas in a debate setting enhances students' reasoning skills and promotes cognitive growth (Dewangga et al., 2024).

Bloom's taxonomy categorizes learning into six cognitive levels: remembering, understanding, applying, analyzing, evaluating, and creating. Debate directly engages students in higher-order thinking by requiring them to analyze issues, evaluate arguments, and synthesize information into coherent positions (Mezuk et al., 2011). This pedagogical approach cultivates critical thinking skills essential for academic and professional success.

Deliberative democratic theory underscores the importance of rational discourse in democratic participation. Debate-based civics education provides students with structured opportunities to engage in civil discourse, practice respectful disagreement, and develop informed opinions on civic matters. Research suggests that students who participate in structured debates exhibit higher levels of civic awareness and political engagement (Hogan et al., 2017).

As AI continues to influence education, Siemens' (2005) connectivism theory highlights the role of digital tools in modern learning environments. AI-powered debate tools provide personalized feedback, expose students to diverse perspectives, and enhance their ability to construct well-supported arguments. By integrating AI into debate instruction, students can develop digital literacy skills necessary for navigating today's information landscape (Zhang, 2023).

Review of the literature

Research on debate-centered civics education underscores its effectiveness in preparing students for college, careers, and civic life. The **3C's framework**—college readiness, career preparation, and civic engagement—provides a structured approach to understanding the benefits of debate in educational settings.

Studies indicate that participation in debate programs correlates with improved academic achievement, critical thinking skills, and communication abilities (Shackelford, Scott, & Mezuk, 2019). Debate challenges students to research, analyze, and articulate complex ideas, skills that are highly valued in higher education. Research further suggests that students involved in debate programs have higher college enrollment and completion rates compared to their peers (Mezuk et al., 2011).

As workplaces evolve with the integration of AI and automation, the demand for **future-ready skills** such as problem-solving, collaboration, and adaptability increases (Baines, Medina, & Healy, 2023). Debate-centered learning fosters these competencies by requiring students to engage in structured discourse, defend viewpoints with evidence, and refine persuasive communication. Employers increasingly seek graduates with strong analytical reasoning and the ability to synthesize diverse perspectives (Zhang, 2023).

The ability to engage in deliberative discourse is a fundamental component of democratic participation. Debate fosters civic responsibility by providing students with opportunities to discuss contemporary social and political issues (Hogan et al., 2017). Furthermore, structured debate cultivates respect for diverse viewpoints and enhances students' ability to critically evaluate policy positions, preparing them to become informed and active citizens (Pontes, Henn, & Griffiths, 2017).

With AI playing an increasing role in shaping the modern workforce, debate-based learning remains essential for equipping students with **human-centered skills** such as ethical reasoning, critical analysis, and digital literacy (Siemens, 2005). AI-powered tools can augment debate instruction by offering real-time feedback, analyzing argument structure, and exposing students to a broader range of perspectives, further strengthening their readiness for the future (Zhang, 2023).

This review of the literature highlights the transformative impact of debate-centered civics education in preparing students for an evolving academic, professional, and civic landscape.

Research design and methodology

This study employs a qualitative case study methodology to examine the effectiveness of debate-centered civics education in equipping students with future-ready skills. Through a combination of classroom observations, surveys, interviews, and AI-driven feedback analysis, this research will assess the impact of structured debate activities on students' cognitive development, civic engagement, and preparedness for college and careers.

A case study design allows for an in-depth exploration of debate-centered civics education by examining how students engage with structured debate activities in real classroom settings. The study will adopt a mixed-methods approach, integrating qualitative data from teacher and student interviews with quantitative data from AI-driven performance tracking of students' argumentation skills.

This study will examine the participation of high school students in a debate-centered civics education program. A purposive sampling strategy will be used to select participants from multiple schools implementing debate-based civics instruction. The sample will include 50 to

100 students enrolled in structured debate programs, 10 to 15 teachers experienced in using debate as an instructional strategy, and 5 to 10 AI integration experts specializing in AI-driven debate instruction.

To ensure a comprehensive analysis of the effectiveness of debate-centered civics education, the study will utilize multiple data collection methods. Classroom observations will assess student engagement, participation, and argumentation techniques during debate sessions. Student and teacher surveys, conducted both before and after the study, will measure students' perceptions of debate activities and their impact on confidence, critical thinking, and communication skills. Semi-structured interviews, including both one-on-one and focus group discussions with students, teachers, and AI integration experts, will provide deeper insights into the effectiveness of AI-assisted debate instruction. Additionally, AI-driven performance analysis will evaluate students' argument structures, reasoning strength, and improvement in debating skills over time.

The collected data will be analyzed using thematic coding for qualitative data and statistical analysis for quantitative data. Thematic analysis will involve transcribing and coding interviews and classroom observations to identify common themes related to student engagement, cognitive growth, and civic readiness. Descriptive and inferential statistics will be used to analyze survey responses and AI-driven performance metrics, measuring skill improvement over time. A comparative analysis will assess AI-assisted debate instruction against traditional debate methods to determine the added value of AI in civics education.

This study will adhere to ethical research practices, ensuring that participants' rights and privacy are protected. Informed consent will be obtained from participants and their guardians before data collection. Confidentiality and anonymity will be maintained by anonymizing all collected data. Participation will be voluntary, and students and educators may withdraw from the study at any time without consequence. Additionally, the research will follow Institutional Review Board (IRB) guidelines to uphold ethical standards.

This research aims to provide empirical evidence on how debate-centered civics education, enhanced by AI tools, can improve students' readiness for college, careers, and civic life. The findings will contribute to curriculum development for civics education programs incorporating debate, offer policy recommendations for integrating AI-driven debate instruction in schools, and provide best practices for educators seeking to implement debate-centered learning. By exploring the intersection of debate, AI, and civic education, this study will contribute to the growing body of research on innovative teaching methodologies that prepare students for success in an AI-driven society.

Expected findings and implications

The study anticipates that students participating in debate-centered civics education will demonstrate significant improvements in critical thinking, argumentation, and civic engagement. AI-assisted debate instruction is expected to enhance students' ability to construct well-reasoned arguments, analyze complex issues, and engage in meaningful discourse. Additionally, the integration of AI tools will likely provide real-time feedback, allowing students to refine their reasoning and adapt their debate strategies more effectively than traditional methods.

Furthermore, it is expected that students who engage in debate-based learning will be better prepared for academic and professional challenges, exhibiting stronger communication skills, digital literacy, and the ability to navigate political and social discourse responsibly. The findings will likely show that AI-supported debate activities foster a deeper understanding of

civic responsibilities and encourage students to become more active participants in democratic processes.

The study's results could inform educational policies by demonstrating the value of debate-centered instruction in enhancing civics education. Recommendations will include integrating structured debate curricula into K-12 classrooms, investing in AI tools to support student learning, and providing professional development for teachers to effectively implement debate activities. Additionally, policymakers may consider adopting debate-based assessments as an alternative to traditional testing methods to measure students' analytical and communication skills more effectively.

By highlighting the benefits of AI-enhanced debate-centered civics education, this study aims to contribute to the ongoing conversation about preparing students for success in an increasingly digital and complex democratic society.

Conclusion

This study contributes to the growing body of research on innovative educational methodologies by demonstrating the potential of debate-centered civics education in fostering future-ready skills. The findings will highlight the transformative effects of structured debate on students' critical thinking, communication abilities, and civic engagement. Furthermore, the integration of AI into debate instruction is expected to provide enhanced learning experiences by offering personalized feedback, broadening access to diverse perspectives, and refining students' argumentation skills.

As AI continues to reshape education and the workforce, ensuring that students develop strong analytical, digital literacy, and problem-solving skills becomes imperative. Debate-centered learning not only equips students with these essential competencies but also instills in them the ability to engage in informed, respectful discourse—an increasingly vital skill in today's polarized social and political landscape. By providing empirical evidence on the efficacy of AI-assisted debate programs, this study aims to inform curriculum development, teacher training, and educational policy to create more engaging and effective civics education models.

Ultimately, the study underscores the importance of fostering deliberative democracy through education. Encouraging students to critically engage with societal issues, construct well-reasoned arguments, and appreciate diverse viewpoints will prepare them to navigate the complexities of modern civic life. The insights derived from this research will serve as a foundation for future studies on AI's role in education and contribute to best practices for integrating technology into debate-centered civics instruction.

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