

The Impact of Discourse-Based Learning on Student Civic Engagement, Polarization, and Topic Comprehension

Isabel Epistelomogi^{1*}, Maryam Zoweil¹, Timothy Sabau¹, Jaden Wu², Collin Wang², Jahnavi S. Rao^{2,3}

ARTICLE INFO

Keywords:

polarization, civics, education, young people, discourse, non-partisan

ABSTRACT

School often serves as the first opportunity for students to learn about civics. However, current systems of civics education may not be adequately preparing students to become actively engaged citizens. Given the growing discontent and polarization in American politics, there is a need for educational solutions to stimulate civic engagement and unity. While previous studies have shown that "interactive civic activities" can increase students' interest in American civics, less is known about the efficacy of non-partisan, discourse-based learning techniques in fostering open-mindedness and a comprehensive understanding of political issues. These prompted researchers at the Institute for Youth in Policy (YIP) to study this topic. Researchers analyzed pre- and post-workshop data from a virtual workshop (n=36) and found that discourse-based civics programs are effective in decreasing polarization levels, increasing topic comprehension, and promoting civic engagement among youth.

1. Introduction

1.1. Political Polarization

American politics has become increasingly divisive in recent years with lawmakers often in gridlock, rarely reaching compromise. A study released by The Lugar Center and the McCourt School of Public Policy at Georgetown University (2022) found that the 117th Congress had "a sharp drop in bipartisanship in both the House and the Senate," making it difficult to pass bills addressing issues of national importance (McCourt School of Public Policy, 2022; Jilani & Smith, 2019).

On a personal level, individuals are exhibiting increasing levels of partisanship on moral, economic, and civil rights issues, among others (Baldassarri & Gelman, 2008, p. 415). The negative effects of polarization are far-reaching and pervasive. For instance, political polarization has been linked to a reduced likelihood of people helping others from a different

Cite this article as:

Epistelomogi, I., Zoweil, M., Sabau, T., Wu, J., Wang, C., & Rao, J. S. (2024). The Impact of Discourse-Based Learning on Student Civic Engagement, Polarization, and Topic Comprehension. *Journal of Advanced Research in Social Sciences*, 7(4): 56-70. https://doi.org/10.33422/jarss.v7i4.1332

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¹ Education Department at the Institute for Youth in Policy, USA

² New Voters Research Network, USA

³ University of Maryland Center for Democracy and Civic Engagement, USA

^{*}Corresponding author's E-mail address: izzy@yipinstitute.org

socioeconomic status and increased antagonistic treatment of those with opposing political views. Political polarization can also create divisions among families, negatively influence health, and increase stress among individuals (<u>Jilani & Smith, 2019</u>). Political polarization also elevates the prominence of political identities, transforms inter- and intra-group dynamics, and magnifies cognitive biases, which can lead to negative effects on consumer welfare, financial well-being, and mental and physical health (<u>Weber et al., 2021, p. 184</u>).

Beyond polarization, the perception of ideological divisions, or perceived polarization, can have significant, direct effects on social trust and reduce the desire to collaborate with others (Lee, 2022, p. 1541, 1533).

Alarmingly, polarization is rapidly rising among youth. This is largely due to "their distrust of the opposing party increas[ing] dramatically" (<u>Tyler & Iyengar, 2022, p. 347</u>). The same researchers found that youth are viewing the opposing party negatively and developing polarized views at an earlier age with "minimal changes thereafter."

1.2. Failures in Civics Education

The rise in political polarization coincides with the ineffectiveness in current civic education practices. Rebell reports that many students who possess basic literacy skills "...have yet to master the critical-reasoning and deliberation skills needed to appraise one-sided or false information, assess policy alternatives, and enter into fruitful conversation with people who have opposing views" (2018, p. 21). Moreover, research shows that teachers often stray away from mentioning and discussing controversial and complex topics (Hess, 2009, p.162). Subsequently, students often don't have the skills to have fruitful discussions that may promote mutual understanding surrounding controversial topics.

Furthermore, current civic curriculums and programs taught in schools seem to be ineffective in increasing students' civic knowledge as civics knowledge scores have stagnated in recent years — while other subjects' scores, like math and reading, have generally increased (<u>Hansen et al., 2018, p. 3</u>).

Overall, youth are increasingly politically unengaged. During the 2020 U.S. Presidential Election, youth voter turnout (ages 18-24) was significantly lower (48%) than the national average (61.3%), and when compared to senior citizens (71.9%) (O'Neill, 2022). After reviewing three studies (Bers and Chau, 2010; McDevitt & Kiousis, 2006; Pasek et al., 2008), researchers reported that civic education programming had no positive influence on voting (Manning & Edwards, 2013, p. 40). Young Americans also have higher rates of distrust and lack of confidence in the functions of government and are becoming less involved in their communities (Hart & Youniss, 2017, p. 123).

Researchers have attributed this disengagement to a variety of factors including young Americans' distrust of traditional systems, the rapid dissemination of misinformation across media, lack of focus on humanities, civics, and social studies in schools, the avoidance of discussions of controversial topics in classrooms, and the lack of proper funding in schools especially in majority low-income urban and rural schools (Rebell, 2018, p. 20).

In short, current systems of civics education have proven ineffective in preparing, engaging, and depolarizing young Americans in civics, politics, and government.

1.3. Potential Solution: Discourse-Based Methods

An alternative to current practices in civics education is to utilize discourse-based methods as discourse-based practices prove effective in reducing polarizing views. When people engage

with others' with differing viewpoints, they start to see the "value of alternative viewpoints" and their views "will moderate" (Fishkin & Luskin, 2005; Mutz, 2006; Zhang, 2019; Broockman and Kalla, 2016; Fishkin et al., 2021). Researchers also found that engaging in anonymous cross-party political conversations led to substantial and significant decreases in political polarization with "sizable increases in [the] depolarization index even after relatively short conversations on [the] platform" (Combs et al., 2022, pp. 7-8).

Additionally, researchers found that when the participants were unaware of their discussion partner's political affiliation, there was the smallest treatment effect, suggesting that when people are unaware of a person's political affiliation, hearing their opposing viewpoint may help contradict previously held political biases and stereotypes (Combs et al., 2022, p. 9). As political stereotypes are a source of polarization (Levendusky & Malhotra, 2016; Ahler & Sood, 2018; Moore-Berg et al., 2020; Paluck et al., 2019; Enders & Armaly, 2019; Ruggeri et al., 2021), "...a conversation with a member of the other party that contradicts prevailing stereotypes—revealing the actual extent of heterogeneity in partisan views—should help to depolarize" (Combs et al., 2022, p.12). These findings show the effectiveness of discourse-based methods in helping people to depolarize.

Discourse-based methods also prove effective in increasing topic comprehension and understanding of political issues. One study found that "...the more open their classroom climate, the greater students score on civic knowledge questions..." (Campbell, 2008, p. 447). Campbell's research defined an open classroom environment as a classroom where political discussions are held where students feel comfortable to disagree with their teacher, to develop and express their own opinions, and feel that their teachers respect their opinions and encourage expression and discussion of different political viewpoints (Campbell, 2008, p. 443). Since Campbell's research utilized the CIVED exam, which measures multiple facets in civics education, and since the questions on the CIVED exam were unrelated to the curriculum the students were taught, Campbell concluded that students' increase in civics knowledge is not attributed to "teaching to the test." Rather, it suggests the importance of discourse-based methods. Similarly, Keating & Janmaat (2015) explain that simply exposing students to content does not necessarily translate to comprehensive understanding nor retention (Niemi & Junn, 2005, p. 53). Rather, open classroom climates are beneficial in increasing civic knowledge and discussion-based activities, like student government and mock elections, are helpful in enhancing civic knowledge and understanding (Kuang et al., 2018, p. 29; Niemi and Junn, 2005).

Beyond the classroom, discourse-based methods can also serve as a catalyst for youth civic engagement. Keating & Janmaat (2015) report that "...experiential learning activities expose children and young people to information and skills that continue to stimulate and/or buttress civic and political engagement during adulthood (Niemi & Junn, 2005, p. 96; Zukin et al., 2006, pp. 142–144)..." (p. 412). Extracurricular activities that promote and practice civic-applicable skills—such as, "deliberation, compromise, speaking in public, expressing an opinion, learning to work in groups, and assimilating other people's opinions"— can help students build future civil skills through "...a heightened awareness that helps them to identify the problem(s) that are in their communities, and the sense of political efficacy with which to go and tackle these problem(s)..." (Keating & Janmaat, 2015, p. 412; McFarland and Thomas, 2006, p. 404). Since youth are at a "formative period in youth civic and political identity-formation", if youth build up their civic skills and habits early on, they are more likely to be engaged in the future (Keating & Janmaat, 2015, p. 412). For instance, people who voted in previous elections are more likely to vote in coming elections, and students who were taught or encouraged to vote in high school are more likely to talk to others about politics, be involved in political and advocacy campaigns,

register and convince peers to vote, and hold leadership roles in a community organization (Plutzer, 2002, p. 42; Andes et al., 2020).

1.4. Theoretical Framework

Given the need for a "more active, experiential, and relevant civic education for youth," YIP sought to further examine the effects of discourse-based learning to combat the rise in polarization (Fitzgerald et al. 2021, p. 242). While past research has found that "interactive civic activities" can help students become more engaged in learning about American civics, research has not focused on if discourse-based learning can help foster open-mindedness and help participants better understand others' opposing political views (Ballard et al., 2016, p. 3).

Furthermore, much research on U.S. civics education focuses solely on college students' civic engagement, with a comparative lack of research examining political polarization and civic engagement among youth groups (K-12 students) and diverse minority demographics.

YIP's research comes at an urgent time, as 30% of Americans believe that political polarization is one of the biggest issues in the United States today (Skelley & Fuong, 2022). Amidst pressing national challenges such as climate change, economic inequality, public health, and the regulation of firearms, all of which demand collective action and cooperation, the lack of mutual trust and collective unwillingness to prioritize the common good challenges the United States' ability to achieve shared objectives (Lee, 2022, p. 1534).

1.5. Hypothesis

We hypothesized that interactive non-partisan civics programs (i.e. constructive discourse and debate during a moderated workshop) have quantifiable positive effects on participants' civic engagement, polarization levels, and topic comprehension.

2. Methods

2.1. Our Topic: The Divide Over Gun Control

In recent years, news of horrific gun-related violence, such as the school shooting at Robb Elementary School in Uvalde, Texas, has fueled heightened polarization surrounding the gun policy debate, with proponents and opponents of stricter firearms regulations voicing their opinions (Condon, 2022). We choose to center our workshop around gun control because while at surface gun control is a polarizing topic, we believe there is much consensus to be found.

While the Democratic Party and the Republican Party strongly differ on how the Second Amendment should be expanded or restricted, the American people have reached a degree of consensus on gun regulation. Polling has revealed for decades that the majority of Americans support expanding background checks and red flag laws: 88% of Americans in 2022 either somewhat or strongly supported universal background checks (Beals, 2022; Politico, 2022). Despite this social demand in the wake of mass shootings, Congress has failed to pass legislation addressing America's gun violence epidemic. Although 54 U.S. Senators supported the Safe Communities, Safe Schools Act of 2013 written by U.S. Senators Manchin (D-WV) and Toomey (R-PA) after the 2012 Sandy Hook school shooting, the legislation didn't pass the Senate filibuster (Mascaro, 2022; Ray, 2022; senate.gov, 2013). However, compromise between different ideologies is not impossible. A success of compromise between leaders is shown in the Bipartisan Safer Communities Act of 2021, which was the first time in 30 years that Congress passed a significant bill on gun control (Clyde & Miranda, 2022). Given the

history and relevance of this topic, combined with the fact that most Americans have some agreement over this issue, we choose the topic of gun control as our workshop topic.

2.2. Workshop Procedures

The workshop itself implemented sections of YIP's interactive non-partisan civics curriculum. The workshop duration was an hour and fifteen minutes and consisted of three primary components.

Component one was a standard introduction of team members and a presentation of the workshop and the principles for discussion. Principles for discussion included: delve into the nuances of an issue, remain open-minded to different opinions, find consensus based facts, and assess arguments rather than attacking individuals. Participants were given a pre-workshop survey consisting of 19 questions that evaluated participants' understanding and views on the gun control debate and the opposing position of their personal views. The survey also evaluated participants' comfortability, on a one-to-five scale (one being strongly disagree/no option; five being strongly agree/yes option), about debating others and their views on the effectiveness of having a well-rounded debate on civics. A limitation of the one-to-five scale method is that it introduces the possibility of central tendency bias or other biases related to participants' scale interpretations. Our team worked to overcome this limitation by offering participants an opportunity to provide qualitative feedback at the end of the survey. The survey also asked for one's political affiliation, in general, and on the gun debate specifically, as well as demographic factors such as state residency, age, gender, race/ethnicity, and type of school that the participant attends. The complete survey can be found in the appendix and more information on the survey and data collection is in the "Bias Reduction and Collection" sub-section.

Component two of the workshop involved sending participants into online breakout rooms of 6-8 students paired with one moderator. The moderators were coached beforehand on how to best facilitate debate, and it was ensured they had a comprehensive understanding of all perspectives surrounding the breakout room questions. The moderators were also instructed to represent the counter position if necessary. The team asked students three tiers of questions with elevating degrees of potential for polarization. The final tier and plurality of the workshop revolved around the question, "Should the 2nd amendment be repealed?" Subjects were then instructed to debate the question, while the moderator acted as an advocate for the political side of the argument less represented in the room (usually the right-wing perspective). After debating the points for a minimum of 30 minutes, students developed a middle-ground position that would satisfy both their position and the counter position.

Component three, the final component, consisted of participants returning to the main Zoom room for an informal Q&A where they also took a post-workshop survey, consisting of the exact same 19 questions as the pre-survey, before they left the workshop. This enabled our team to analyze the pre- and post-survey differences.

Due to the small sample size, the research carried out is meant primarily for explanatory, not predictive purposes. While the team did run predictive tests, as will be touched upon later in the section, it's important to stress that any predictive interpretations are preliminary. Multiple iterations tests were run to counter the small sample size, despite occasionally seeming redundant. The team did this intentionally to ensure the information conveyed was as accurate and multivariate as possible. The intricacies of the testing procedures are explained in their respective sections, but the workflow is as follows:

- 1. Descriptive statistics and data visualization.
- 2. The identification of high-impact areas and standard paired t-tests/repeated measures ANOVAs (AND Wilcoxon signed-rank tests) to determine statistical significance.
- 3. The use of correlation matrices to supplementally see if the correlations were lining up with the testing.
- 4. The building of built scatterplots/regressions and a classification tree.
 - a. Again, the predictive models are preliminary and used for explanatory, not predictive analytics at this point.

2.3. Bias Reduction and Collection

Researchers contacted all participants in the YIP Fellowship program to acquire subjects for hypothesis testing. Out of a total fellowship cohort of around 68, 46 students agreed to participate in the digital workshop. Of the students participating in the workshop, 36 completed both the pre-and post-survey questionnaires, leaving an analytical sample size of 36 (n=36) students. As a reflection of this result, sampling was voluntary. This could have caused demand bias if participants paid more attention to the workshop than they would in their natural learning environment because of a desire to perform well in the fellowship activities. Thus, a modification to the experiment would be to widen the sample population by using random stratified sampling instead of convenience sampling, increasing population validity and generalizability. The pool of candidates sampled was also disproportionately left-leaning, as reflected in a low conservative response rate (df=0), which is representative of the overall young American population, which disproportionately leans leftward (Pew Research Center, 2015). One member of the fellowship participated in the data analysis. Due to the anonymized nature of the survey results, their responses were left in the data (as acquiescence/desirability bias should be minimal). Due to the fellowship belonging to the same organization as the research team, additional steps were implemented to avoid any possible conflicts of interest and to mitigate bias. These steps included:

- The anonymization of all survey responses to reduce acquiescence bias.
- Avoiding design or goal involvement of anyone belonging to the fellowship subdepartment (responsible for overseeing the fellows) to reduce desirability bias.
- Restrictions on the access to the data/goals of the study to ensure participants do not have any leaked information that could feed into response bias.

The collection procedure used was a standard pre-post survey design. Before the workshop, each participant was instructed to complete a digital pre-survey through Google Forms. The data we collected with the consent of the participants was fully anonymous. To protect anonymity, the subjects created an identification key that only they knew. Upon completion of the workshop, subjects were asked to complete a digital post-survey using the same identification key they used in the pre-survey. Implementing this model digitally limits proof of its effectiveness in in-person settings; however, it uniquely allowed us to sample a geographically diverse range of participants.

To further protect anonymity, the research team did not record IP addresses, emails, or other PII. The survey consisted of a series of demographic and political affiliation-related questions, as well as 19 questions related to engagement, polarization, and topic comprehension. For data analysis purposes, we evaluated questions that were asked both on the pre-workshop and postworkshop surveys, making a comparison possible between the two surveys. Survey questions can be found in the appendix.

The team conducted standard cleaning procedures using Tableau and Excel. Deviations from standard procedure included matching ID keys to pre/post response, converting the "Strongly

Agree" – "Strongly Disagree" questions into a numeric 1-5 scale, binning the age variable, and creating dummy variables for classification testing. YIP's data analysts from the Education department used a variety of data analysis methods, including t-tests, Power BI, ANOVAs, K's Nearest Neighbors, classification trees, box plots, scatterplots, and correlation matrices, to compare the data from pre-workshop and post-workshop surveys to evaluate the statistical significance of the effects of the workshop on participants.

3. Data Analysis Results with Discussion

Based on survey responses, participants felt more comfortable expressing their true opinion on the gun control debate after the workshop at a statistically significant level (p=.006). Participants also felt more comfortable debating others after completing the workshop, with a statistically verifiable difference (p < 0.001). Moreover, engagement in the workshop seemed to suggest a realization of the importance of engagement, as indicated by the statistically significant increase (p = 0.013) in participants' belief in the importance of debate in civics. Gender and race didn't affect the overall enjoyment of the workshop per negative ANOVA results with high p-values of 0.991 for race and 0.761 for gender, indicating that YIP's workshop allowed people of all backgrounds to feel comfortable in the workshop and grow to see the importance of civic discourse.

YIP's research also found that participants were less polarized following the workshop. There was a significant increase (p < 0.001) in overall willingness to be actively involved in solving the polarization crisis after the workshop and significant increase (p = 0.08) in participants' respect for individuals with different political opinions post-workshop. Our boxplot for bipartisan agreement saw a quartile shift up a single point as well (Figure 1). We also saw a statistically significant increase (p = 0.037) in participants' views on gun rights shifting in the past week at the time of the survey. The average change in views on gun rights among liberal and centrist participants increased by approximately 18% from pre-survey to post-survey (Figure 2), suggesting that the workshop may have promoted greater open-mindedness of rightleaning positions among liberal and centrist students. This demonstrates the effectiveness of the workshop in promoting open-mindedness among students.

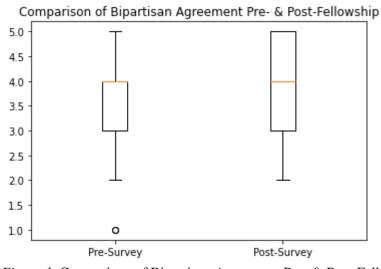


Figure 1. Comparison of Bipartisan Agreement Pre- & Post-Fellowship

Average of Rate how much you agree or disagree with the following statements: [My viewpoint on gun-rights has shifted in the past week (including today).] by What political ideology would you most closely affiliate yourself with? and Survey Type

Figure 2. Average Rate of Survey Question #10 by Political Affiliation

Democratic

Conservativism

Centrism

This shifting of political views counters polarization as it creates open-mindedness in participants. We should note that the shifting political viewpoints weren't abnormally high or low in any specific political affiliation, as confirmed by repeated measures ANOVA with a p-value of 0.895.

Libertarianism

What political ideology would you most closely affiliate yourself with?

Marxism

Not sure

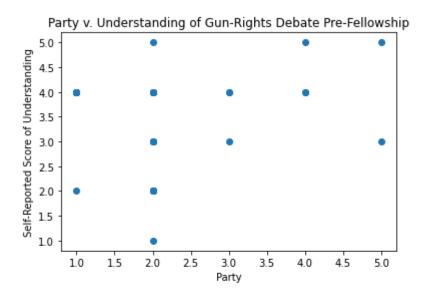
Populism

Progressivism

YIP's Education Data Analytics Team found that participants had greater topic comprehension of the gun debate after the workshop. Following the workshop, there was a statistically **significant** increase in the understanding of left (p = 0.023) and right (p < 0.001) political views on the gun issue debate and an increase (p < 0.001) in understanding of the arguments around gun rights. Liberals reported the highest percentage increase in understanding out of all political ideologies, with an increase of 11.3% upon completion of the workshop. But our scatter plots also showed almost no correlation between topic comprehension and one specific party, but the low sample size could account for the lack of variation (Figure 3). Additionally, the underlying philosophical question guiding the gun rights debate — the balance of individual freedom and responsibility — was better understood with statistical significance (p = 0.002) after workshop completion. Interestingly, liberals' average rate of understanding of the balance increased by 27.3%. This is significant because after engaging in debate and hearing the opposing side civilly, left-leaning individuals, which most youth are, found a greater understanding of the right-wing position on the gun debate and understanding of both ends of the gun debate. And based on our ANOVA (Between Subjects p=.687) and Tukey test, we noticed that these positives weren't restricted to any specific type of school.

When looking across the three categories mentioned above from a macro view, we concluded moderate levels of improvement overall. Factoring all questions across every participant, we saw an average improvement of 5% or .27 points (Figure 4). In other words, these students, on average, scored .27 points or around 5% higher on the follow-up survey after participating in our workshop. Keeping in mind that this was after a single workshop limited to 75 minutes, the team found this improvement entirely satisfactory. After conducting a graphical analysis of the raw point shift from pre- to post-results, we observed a raw score improvement across all questions except for one (Question 16, which saw a very slight drop of 3 points). Question 2, "How well do you understand the arguments revolving around gun rights?" and 19, "I have a well-rounded understanding of the gun-rights debate in the U.S.," saw massive raw improvements of 23 and 28 points, respectively. This suggests that the workshop was very effective in raising self-reported topic comprehension.

We also saw an average raw point increase of 8.83 across all 19 target questions. Despite political affiliations performing pretty evenly, we noticed that Progressives (.129) and Centrists (.135) seemed to be the most positively correlated. Due to our small sample size, our linear regressions and classification trees should not be over-interpreted. Although the correlation coefficients support our positive micro-category results, we hesitate to draw any concrete conclusions from these predictive models.



Party & Understanding Linear Regression MSE (Pre): 0.7662330679916537

Figure 3. Party v. Understanding of Gun-Rights Debate Scatterplot



Figure 4. Pre-Post Improvement Sums

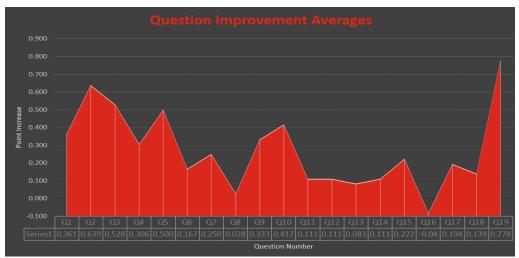


Figure 5. Question Improvement Averages

Overall, our results indicate that non-partisan, discourse-based civic programs are effective in aspects of engagement, depolarization, and topic comprehension among youth. YIP's findings come in a time of urgency, given the need to create greater understanding and engagement in civics, especially among youth. This is a step in the right direction as depolarization, renewed interest, and complete comprehension of political issues can better allow Americans to be informed participants in our democracy.

4. Discussion

There is a need to bring non-partisan, discourse-based activities to classrooms as current systems of civic education have proved to be ineffective in preparing, engaging, and depolarizing youth in civics and government spheres. The absence of discourse-based methods in most social studies classrooms suggests the untapped potential of classrooms in solving these issues.

Our literature review and workshop data support existing literature that has found that non-partisan, discourse-based civics programs and activities have quantifiable positive effects on youth civic engagement, depolarization, and topic comprehension of political issues.

Our research further filled existing gaps in the literature by investigating if discourse-based learning can foster open-mindedness and understanding of opposing views and increase topic comprehension among youth. The results of this pilot study prove the effectiveness of discourse-based, non-partisan activities among students.

To address the challenges in civics education, teachers can seek new ways to incorporate discourse in activities. Whether it be Socratic seminars, mock Congresses, or holding roundtable discussions about complex civic and political issues, teachers can serve as the facilitator and moderator of these conversations, guiding these conversations, creating a welcoming environment, and establishing norms. Students can also be encouraged to lead these discussions, bringing up their own perspectives and encouraging other students to share their opinions.

And the influence of effective civic education methods may have lasting impacts that spur youth to become more civically engaged in their communities and government as a whole.

5. Limitations and Future Research

We recognize that our study has potential limitations. Because the participants in our study willingly signed up for the workshop and fellowship, there may be sampling bias as participants were likely already civically engaged. This calls for further research utilizing a larger and more representative sample size to more accurately represent the diverse, varying levels of civic engagement among youth today.

While conducting our workshop via Zoom allowed us to sample a diverse group of students geographically, it does call for further research exploring the effectiveness of discourse-based, non-partisan civic methods in in-person and classroom environments.

We also recognize the limitations of our 19 survey questions and utilize pre-post survey analysis as our method. First, since the post-survey was taken immediately after the participants engaged in debate, we did not measure the long-term effects of our discourse-based workshop. Second, our survey questions did not measure actionable items that students could partake in to demonstrate their civic engagement. This limitation could be addressed in the future by following a particular cohort of students before and after partaking in discourse on polarizing topics for an extended period of time and by asking survey questions that gauge students' particular civic engagement.

Acknowledgments

Special thanks to Brandon Tran for initiating the idea for this study and to Mollie Guba for her invaluable guidance and supervision throughout the process. We could not have done this without Mollie's guidance, advice, and collaboration. Many thanks to Hannah Alfieri for organizing and facilitating the editing process, and to Ahad Khan, Adit Pakala, and Gwendolyn Teeling for their reviews and edits.

We'd also like to thank Asma Ansari, Vaasav Gupta, Bryant Li, and Holiday O'Bryan for their contributions to our data analysis and visualization. This study would not have been possible without their support and expertise.

Declaration of Interest Statement

The authors declare that there are no competing ethical or financial interests involved in this research.

References

- Ahler, D. J., & G. Sood (2018, Jul). The Parties in Our Heads: Misperceptions about Party Composition and Their Consequences. *The Journal of Politics* 80(3), 964–981. https://doi.org/10.1086/697253
- Andes, S., Kiesa, A., Junco, R., & Medina, A. (2020, August 31). Youth who learned about voting in high school more likely to become informed and engaged voters. CIRCLE. https://circle.tufts.edu/latest-research/youth-who-learned-about-voting-high-school-more-likely-become-informed-and-engaged
- Baldassarri, D., & Gelman, A. (2008). Partisans without Constraint: Political Polarization and Trends in American Public Opinion. *American Journal of Sociology*, 114(2), 408–446. https://doi.org/10.2139/ssrn.1010098

- Ballard, P. J., Cohen, A. K., & Littenberg-Tobias, J. (2016, December 16). Action Civics for Promoting Civic Development: Main Effects of Program Participation and Differences by Project Characteristics. *American Journal of Community Psychology* 58(3-4), 377-390. https://doi.org/10.1002/ajcp.12103
- Beals, M. (2022, May 26). 88 percent in new poll support background checks on all gun sales. The Hill. https://thehill.com/homenews/state-watch/3502285-88-percent-in-new-poll-support-background-checks-on-all-gun-sales/
- Bers, M., & Chau, C. (2010). The Virtual Campus of the Future: Stimulating and Simulating Civic Actions in a Virtual World. *Journal of Computing in Higher Education* 22(1), 1–23. https://doi.org/10.1007/s12528-009-9026-3
- Brenan, M. (2022, November 21). *Diminished Majority Supports Stricter Gun Laws In U.S.* Gallup.com. https://news.gallup.com/poll/357317/stricter-gun-laws-less-popular.aspx
- Broockman, D. and Kalla, J. (2016, Apr.). Durably reducing transphobia: A field experiment on door-to-door canvassing. *Science 352*(6282), 220–224. https://doi.org/10.1126/science.aad9713
- Campbell, D. E. (2008). Voice in the Classroom: How an Open Classroom Climate Fosters Political Engagement Among Adolescents. *Political Behavior*, *30*(4), 437–454. https://doi.org/10.1007/s11109-008-9063-z
- Clyde, D., & Miranda, S. (2022, June 25). *Biden signs gun safety bill into law*. NPR. https://www.npr.org/2022/06/25/1107626030/biden-signs-gun-safety-law
- Combs, A., Tierney, G., Guay, B., Merhout, F., Bail, C. A., Hillygus, D. S., & Volfovsky, A. (2022). Anonymous Cross-Party Conversations Can Decrease Political Polarization: A Field Experiment on a Mobile Chat Platform. *SocArXiv*. https://doi.org/10.31235/osf.io/cwgu5
- Condon, B. (2022, July 19). *Uvalde school shooter left Trail of warning signs ahead of attack*. PBS. https://www.pbs.org/newshour/nation/uvalde-school-shooter-left-trail-of-warning-signs-ahead-of-attack
- Enders, A. M., & Armaly, M. T. (2019). The Differential Effects of Actual and Perceived Polarization, *Political Behavior 41*, 815–839. https://doi.org/10.1007/s11109-018-9476-2
- Fishkin, J. S., & Luskin, R. C. (2005). Experimenting with a Democratic Ideal: Deliberative Polling and Public Opinion. *Acta Politica* 40(3), 284–298. https://doi.org/10.1057/palgrave.ap.5500121
- Fishkin, J. S., Siu, A., Diamon, L., & Bradburn, N. (2021, Nov). Is Deliberation an Antidote to Extreme Partisan Polarization? Reflections on "America in One Room." *American Political Science Review 115*(4), 1464–1481. https://doi.org/10.1017/S0003055421000642
- Fitzgerald, J. C., Cohen, A. K., Maker Castro, E., & Pope, A. (2021). A Systematic Review of the Last Decade of Civic Education Research in the United States. *Peabody Journal of Education*, 96(3), 235–246. https://doi.org/10.1080/0161956x.2021.1942703
- Hansen, M., Levesque, E., Valant, J., & Quintero, D. (2018). The 2018 Brown Center Report on American Education: How Well are American Students Learning? *Brown Center on Education Policy at Brookings*. https://www.brookings.edu/articles/the-2018-brown-center-report-on-american-education/
- Hart, D., & Youniss, J. (2017). *Renewing Democracy in Young America*. Oxford University Press. https://doi.org/10.1093/oso/9780190641481.001.0001

- Hess, D. E. (2009). *Controversy in the Classroom: The Democratic Power of Discussion* (1st ed.). Routledge.
- Jilani, Z., & Adam Smith, J. (2019, March 4). What Is the True Cost of Polarization in America? Greater Good Magazine. https://greatergood.berkeley.edu/article/item/what_is-the-true-cost of-polarization-in-america
- Keating, A., & Janmaat, J. G. (2015). Education Through Citizenship at School: Do School Activities Have a Lasting Impact on Youth Political Engagement? *Parliamentary Affairs*, 69(2), 409–429. https://doi.org/10.1093/pa/gsv017
- Kuang, X., Kennedy, K. J., & Mo Ching Mok, M. (2018). Creating Democratic Class Rooms in Asian Contexts: The Influences of Individual and School Level Factors on Open Classroom Climate. *Journal of Social Science Education*, *17*(1), 29–40. https://doi.org/10.4119/UNIBI/jsse-v17-i1-1678
- Lee, A. H-Y. (2022). Social Trust in Polarized Times: How Perceptions of Political Polarization Affect Americans' Trust in Each Other. *Political Behavior*, 44(3), 1533–1554. https://doi.org/10.1007/s11109-022-09787-1
- Levendusky, M. S., & Malhotra, N. (2016). Does Media Coverage of Partisan Polarization Affect Political Attitudes? *Political Communication* 33(2), 283–301. https://doi.org/10.1080/10584609.2015.1038455
- Manning, N., & Edwards, K. (2013). Does civic education for young people increase political participation? A systematic review. *Educational Review*, 66(1), 22–45. https://doi.org/10.1080/00131911.2013.763767
- Mascaro, L. (2022, May 25). Will congress act on guns after Sandy Hook, Buffalo, Uvalde?

 AP News. https://apnews.com/article/uvalde-texas-school-shooting-gun-politics-0a290e15634cf11aa0faa53ed44caeb0
- McCourt School of Public Policy. (2022, May 3). *The Lugar Center and McCourt School Unveil bipartisan index rankings for the 117th congress*. McCourt School of Public Policy. https://mccourt.georgetown.edu/news/bipartisan-index-rankings-117th-congress/
- McDevitt, M., & Kiousis, S. (2006). Experiments in Political Socialization: Kids Voting USA as a Model for Civic Education Reform. *CIRCLE Working Paper* 49, 1–52. https://files.eric.ed.gov/fulltext/ED494074.pdf
- Moore-Berg, S. L., Ankori-Karlinsky, L.-O., Hameiri, B., & Bruneau E. (2020, Jun). Exaggerated meta-perceptions predict intergroup hostility between American political partisans. *Proceedings of the National Academy of Sciences* 117(26), 14864–14872. https://doi.org/10.1073/pnas.2001263117
- Mutz, D. (2006). *Hearing the Other Side: Deliberative versus Participatory Democracy*. New York, NY: Cambridge University Press. https://doi.org/10.1017/CBO9780511617201
- Niemi R. G., & Junn, J. (2005) *Civic Education: What Makes Students Learn*, New Haven and London, Yale University Press.
- O'Neill, A. (2022, June 21). Voter turnout rates among selected age groups in U.S. presidential elections from 1964 to 2020. Statista. https://www.statista.com/statistics/1096299/voter-turnout-presidential-elections-by-age-historical/
- Paluck, E. L., Green, S. A., & Green, D. P. (2019). The contact hypothesis re-evaluated. *Behavioural Public Policy* 3(2), 129–158. https://doi.org/10.1017/bpp.2018.25

- Pasek, J., Feldman, L., Romer, D., & Jamieson, K. H. (2008). Schools as Incubators of Democratic Participation: Building Long-term Political Efficacy with Civic Education. *Applied Developmental Science* 12(1), 26–37. https://doi.org/10.1080/10888690801910526
- Pew Research Center. (2015, May 12). *Party affiliation among 18-29 year olds by state*. Pew Research Center's Religion & Public Life Project. https://www.pewresearch.org/religion/religious-landscape-study/compare/party-affiliation/by/state/among/age-distribution/18-29/
- Plutzer, E. (2002). Becoming a Habitual Voter: Inertia, Resources, and Growth in Young Adulthood. *The American Political Science Review*, 96(1), 41–56. https://doi.org/10.1017/S0003055402004227
- Politico. (2022, May). National Tracking Poll #2205161. https://www.politico.com/f/?id=00000180-fe72-d0c2-a9ae-ff7250f80000&nname=play-book&nid=0000014f-1646-d88f-a1cf-5f46b7bd0000&nrid=0000014e-f115-dd93-ad7f-f91513e50001&nlid=630318
- Ray, M. (2023, June 16). *Sandy Hook Elementary School shooting*. Encyclopædia Britannica. https://www.britannica.com/event/Sandy-Hook-Elementary-School-shooting
- Rebell, M. A. (2018). Preparation for capable citizenship: The schools' primary responsibility. *Phi Delta Kappan*, 100(3), 18–23. https://doi.org/10.1177/0031721718808259
- Rozansky, M. (2016, September 13). *Americans' Knowledge of the Branches of Government Is Declining*. The Annenberg Public Policy Center of the University of Pennsylvania. https://www.annenbergpublicpolicycenter.org/americans-knowledge-of-the-branches-of-government-is-declining/
- Ruggeri, K., Većkalov, B., Bojanić, L. *et al.* (2021, April 22). The general fault in our fault lines. Nature Human Behaviour 5, 1369-1380. https://doi.org/10.1038/s41562-021-01092-x
- Secretary of the Senate. (2021, May 25). *Roll call vote 113th congress 1st session*. www.senate.gov. https://www.senate.gov/legislative/LIS/roll_call_votes/vote1131/vote_113_1_00097.htm
- Skelley, G., & Fuong, H. (2022, June 14). *3 In 10 Americans Named Political Polarization As A Top Issue Facing The Country*. FiveThirtyEight. https://fivethirtyeight.com/features/3-in-10-americans-named-political-polarization-as-a-top-issue-facing-the-country/
- Tyler, M., & Iynegar, S. (2022). Learning to Dislike Your Opponents: Political Socialization in the Era of Polarization. *American Political Science Review*, 117(1), 347–354. https://doi.org/10.1017/s000305542200048x
- Weber, T. J., Hydock, C., Ding, W., Gardner, M., Jacob, P., Mandel, N., Sprott, D. E., & Van Steenburg, E. (2021). Political Polarization: Challenges, Opportunities, and Hope for Consumer Welfare, Marketers, and Public Policy. *Journal of Public Policy & Marketing* 40(2), 184–205. https://doi.org/10.1177/0743915621991103
- Zukin, C., Keeter, S., Andolina, M., Jenkins, K., & Carpini M. X. D. (2006). *A New Engagement? Political Participation, Civic Life, and the Changing American Citizen,* New York, Oxford University Press. https://doi.org/10.1093/acprof:oso/9780195183177.001.0001
- Zhang, K. (2019, Apr.). Encountering Dissimilar Views in Deliberation: Political Knowledge, Attitude Strength, and Opinion Change. *Political Psychology* 40(2), 315–333. https://doi.org/10.1111/pops.12514

Appendix

Survey Questions

- 1. How comfortable do you feel debating with others?
- 2. How well do you understand the arguments revolving around gun-rights?
- 3. How well do you understand the right-wing viewpoint revolving around gun-rights?
- 4. How well do you understand the left-wing viewpoint revolving around gun-rights?
- 5. How well do you understand the balance between individual freedom and public responsibility?
- 6. How willing are you to entertain viewpoints opposed to your own regarding gunrights?
- 7. How important do you think debate is in regard to civics?
- 8. In regard to gun-rights, do you believe the opposing position has merit?
- 9. Rate how much you agree or disagree with the following statements: [I am comfortable expressing my true opinion about gun-rights.]
- 10. Rate how much you agree or disagree with the following statements: [My viewpoint on gun-rights has shifted in the past week (including today).]
- 11. Rate how much you agree or disagree with the following statements: [I think diversity of thought is important to a civics curriculum.]
- 12. Rate how much you agree or disagree with the following statements: [I respect individuals with different political positions from my own.]
- 13. Rate how much you agree or disagree with the following statements: [Open conversation with political opponents should be encouraged]
- 14. Rate how much you agree or disagree with the following statements: [The left-wing position on gun-rights is backed by evidence and logic.]
- 15. Rate how much you agree or disagree with the following statements: [The right-wing position on gun-rights is backed by evidence and logic.]
- 16. Rate how much you agree or disagree with the following statements: [I believe that opposing ideologies can find areas of agreement.]
- 17. Rate how much you agree or disagree with the following statements: [The right and the left can come to agreement on gun-rights.]
- 18. Rate how much you agree or disagree with the following statements: [I want to be actively involved with solving the polarization crisis in the US]
- 19. Rate how much you agree or disagree with the following statements: [I have a well rounded understanding of the gun-rights debate in the US.]