

ABSTRACT

Title of Dissertation: CIVIC LEARNING IN A DIGITAL WORLD:
SUPPORTING STUDENTS TO REASON
ABOUT CONTROVERSIAL PUBLIC ISSUES
ON THE INTERNET

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Young people have knowledge and lived experiences related to pressing social and political issues in their communities. Yet, all civic actors need to consider additional information from credible sources as they decide what we should do, together, to take action on these issues. Young people frequently seek and encounter information about civic issues on the internet, where they may struggle to find sources they can trust. Digital platforms are powered by algorithms that provoke strong emotions, spread disinformation, and exploit systems of inequality. Social studies education can support students to develop reliable strategies for finding credible digital sources and to reflect on the ways that they (like all of us) are prone to accept or reject information based on its alignment with our existing worldviews. This dissertation explored how social studies teachers and their students can build on their civic knowledge and lived experiences by seeking credible digital sources about controversial public issues.

The first study was a comparative case study that investigated how 8th grade social studies teachers and their students researched and deliberated about a

controversial issue by searching for and evaluating digital sources. Using the Digital Civic Inquiry (DCI) curriculum (civicingquiry.umd.edu), the teachers guided students to 1) activate prior knowledge about a controversial issue, 2) evaluate the credibility of digital sources, 3) read sources they deemed credible, and 4) deliberate about the controversial issue and what, if any, civic actions they should take. While facilitating this inquiry required complex pedagogical moves, the social studies teachers successfully guided students through each stage of the inquiry. They did so by helping students understand when to evaluate sources and when to learn more about the controversial issue through close reading. In turn, their 8th grade students engaged in the deliberation by drawing on evidence from their prior knowledge and experiences as well as evidence from credible, digital sources.

The second study used design research methodologies to analyze two iterations of a teacher professional development workshop that supported teachers to implement the DCI curriculum. The workshop aimed to prepare 8th grade social studies teachers to facilitate discussions about the credibility of digital sources that may provoke strong reactions from students. Through revisions to the workshop, teachers were better able to analyze the teaching practices involved in teaching a DCI. However, I also found that teachers did not consistently use the facilitation moves that the professional development team suggested: affirming students' personal experiences and orienting them to evaluate sources. Rather, the teachers used a variety of other discussion moves; most notably, they frequently critiqued, rather than affirmed, students' contributions.

The third study focused on how pre-service social studies teachers (PSTs) used social media sources to consume, circulate, and discuss information about politics and how they planned to do so with their secondary students. Through analyses of surveys, interviews, and audio- and video-recordings of PSTs' participation in a professional development workshop, I found that they engaged with a diverse set of digital sources typical of social media platforms. They also encountered challenges when trying to rely on those platforms for accurate and relevant information. Despite believing there was value in engaging students with social media platforms that they so often occupy, almost all of the PSTs were reticent about doing so in the classroom.

Together, these dissertation studies provide models for teaching and learning about controversial, civic issues with sources from authentic digital environments. This kind of civic education is essential to support students to build informed perspectives on pressing issues and decide how to take informed action in their communities.

CIVIC LEARNING IN A DIGITAL WORLD:
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PUBLIC ISSUES ON THE INTERNET

by

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Dedication

For Lucy, Harry, Benjamin, Colin, Leo, Alice, and all of the children who keeping me dreaming
for a better civic future.

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This dissertation was made possible with the support of teachers and students in Washington, DC who jumped into the Digital Civic Inquiry curriculum with enthusiasm and curiosity. I am deeply grateful to have had the opportunity to collaborate and learn with them. A special thanks to Madison Kantzer, Scot Wilson, Lena Morreale Scott, the Maryland Democracy Initiative, and the members of my dissertation committee: Dr. Keisha Allen, Dr. Doug Lombardi, Dr. Jeremy Stoddard, and Dr. Janet Walkoe. I was only able to complete this project because of your generous collaboration, support, and shared belief in this work.

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colleague. Special thanks to the UMD social studies interns who helped me explore what it means to be a social studies teacher educator.

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Chapter 1: Introduction

During a September 2024 presidential debate with Vice President Kamala Harris, former and soon-to-be reelected President Donald Trump was discussing immigration policy and claimed that Haitian immigrants in Springfield, Ohio “are eating the dogs. The people that came in, they are eating the cats. They’re eating – they are eating the pets of the people that live there” (Reinstein & Demissie, 2024). This xenophobic and baseless claim had been debunked before the debate by city officials in Springfield. That did not stop President Trump from repeating the claim on television for an audience of 67 million people or Vice-Presidential candidate and Ohio Senator J.D. Vance from promoting it on his X account, amassing 11 million views and asking others to share it (Uribe & Sherman, 2024).

This disinformation about Haitian immigrants, which PolitiFact deemed “the lie of the year,” gained traction in the United States with the help of online architectures and systems of inequality. The claims about people in Springfield spread rapidly through our online information ecosystems on platforms like X, Facebook, TikTok, and Reddit (Thomas & Wendling, 2024; Uribe & Sherman, 2024; Wendling, 2024). At the same time, political actors used these lies to exploit systems of inequality for their own gain. Knowing that people with xenophobic fears and economic anxieties might believe the rumor about Haitians in Springfield, leaders intentionally spread the lies to serve a false narrative about immigrants in the United States. In these ways, the information ecosystem and systems of oppression in the U.S. created the conditions for mis- and disinformation to spread, for racist tropes to flourish, and xenophobic biases to drive discourse.

While the Trump/Vance ticket did not appear to suffer an electoral setback from spreading these lies, the people of Springfield, Ohio did face the consequences. Schools and hospitals in Springfield faced bomb threats for weeks. Haitian residents were afraid to attend

school or be seen in public without hearing public taunts from other residents. Haitian churchgoers sought police protection during a Sunday afternoon mass. And one Haitian community leader was asked by his 7-year-old son if they eat dogs at their house (Uribe & Sherman, 2024). While mis- and disinformation may begin online, its consequences affect the lived experiences of people—often people already marginalized within society.

Life in a democracy depends on its citizens' ability to reason about civic issues with accurate information in ways that value pluralism and move beyond the reinforcement of our prior beliefs. Lee et al. (2021) defined *civic reasoning* as asking “what we should do, where ‘we’ is a group of any size, outside the family, to which the individual belongs” (p. 56). Elsewhere, Lee and colleagues (2023) summarized civic reasoning as “the ability to think about social issues in complex ways” (p. 54). Any consideration about what we should do among diverse individuals will provoke different values and beliefs. Therefore, civic reasoning is inherently ethical: Which people and policies we prioritize in our decisions will always be based on our values (Lee, et al., 2021). Such ethical considerations require people to tap into their emotions and deeply-held beliefs to guide their reasoning, but answering what we should do also requires “a rigorous empirical understanding” of an issue, the stakeholders involved, and how various decisions might impact those stakeholders (Lee, et al., 2021, p. 56). While people will have diverse answers to the question “what should we do” about issues like immigration, our democracy depends on civic reasoning and discourse that values diversity, pluralism, and credible information.

Lee et al.'s (2021) definition highlights that at its most fundamental, civic reasoning requires engagement with a diverse set of *resources* (Lee et al., 2023; Stitzlein, 2021). Some of those resources are cultural artifacts constructed within our communities of practice (Gutierrez &

Rogoff, 2003) but are readily available in our own minds. I refer to these as *personal resources*, or input for reasoning derived from our background knowledge, personal experiences, and beliefs. Personal resources are easily accessible – we often access them unconsciously and do not need to engage in rigorous research to activate our prior knowledge, experiences, or beliefs. These kinds of resources are essential to our civic choices.

To decide “what we should do,” however, we also need to draw on external resources that provide insight into the experiences and expertise of *others*. Only through engagement with *diverse, external, and credible* sources will we gain a “rigorous empirical understanding of the situation” and make the most informed decisions with and for our communities (Lee et al., 2021, p. 56). Therefore, civic education must prepare students to engage with both their personal resources and information from diverse, external, and credible sources (referred to as simply “credible sources” below). Fostering this kind of reasoning is complex and made more so by the online environments where we most frequently engage with civic information. Given these complexities, schools can play an essential role in preparing students to engage in civic reasoning in ways that will help them take civic action. However, research has not yet extensively probed how teachers and curricular materials can best support students to evaluate and integrate both personal resources and credible sources during their online inquiries into social and political information.

Therefore, my dissertation explored this research problem in three studies on social studies education. The first article focused on the ways social studies teachers facilitate students’ participation through a controversial issue inquiry where students are asked to evaluate and read credible online sources and discuss those sources and their personal resources about the issue with peers. The second article zoomed in on the teacher preparation needed to help students

conduct one key part of this inquiry: assessing the credibility of online sources that are relevant to students' lives. Finally, the third article explored how pre-service social studies teachers engage in a controversial issue inquiry themselves using social media sources and how they might lead such inquiries with their own students.

To lay the foundation for this research, this chapter is organized into four major sections. The first focuses on civic reasoning, the resources and pedagogies that support it, and the challenges to enact these pedagogies in schools. The second section focuses on the ways digital contexts create new possibilities and challenges for civic reasoning. In the third section, I describe what research has established about teaching students to evaluate digital sources on civic issues in schools and what research is still needed. Finally, I provide a brief overview of each dissertation article and my personal commitments to this work. In the process, I conceptualize the kind of civic reasoning that educators should prepare students to engage in to promote democracy in our digital world.

Civic Reasoning

Democratic self-governance depends on the premise that individuals can choose the government that represents their values and policy preferences. To make such choices, people need to reason about which positions they prefer and which representatives align with or diverge from their preferred choices. For that reasoning to be sound, people need to ground their decisions in credible evidence. In the following section, I explore two kinds of resources for civic reasoning on which students should rely and how teachers have supported students to cultivate them in schools. First, I explore students' personal resources and the pedagogies that support investigation of them. Second, I describe the importance of students' engagement with external, credible sources and how they can access and engage with them in school. To conclude

this section, I explore dynamics in the greater political context in the United States and the human propensity for directionally-motivated reasoning that make civic reasoning particularly challenging to achieve in classrooms.

Resources for Civic Reasoning

Personal Resources

Students' personal resources – the knowledge, experiences, and beliefs that students develop inside and outside of school – are essential to their learning. Students' beliefs, prior knowledge, and experiences shape their ability to build new knowledge (Bransford et al., 2000) and provide important input for students' civic reasoning (Lee et al., 2021; Lee et al., 2023; Nasir & Hand, 2006). Whether they manifest as our deeply-held beliefs or an experience with a particular civic issue, personal resources are often tied to strong emotions. While emotions are often cast as separate from “thinking” or “reasoning,” our emotions are intimately tied to our cognition (Abelson et al., 1968; Garrett, et al., 2020; Lodge & Taber, 2007; 2013). Therefore, civic reasoning cannot be separated from – and in fact, depends on – students' emotional cues to make ethical and value-based judgments (Lee et al., 2021; Stitzlein, 2021). Prominent civic education frameworks are starting to value students' more affective resources. For example, in the recent Educating for American Democracy Initiative (2021) framework, teachers are encouraged to ask students the question, “What matters to me and why? How can I make what matters to me be about more than myself?” Only through consideration of students' personal resources can students begin to answer such questions.

The personal resources that are salient to our civic reasoning are dynamic and diverse. Individuals have a unique set of resources to engage based on their life history. Likewise, the resources on which an individual will draw to answer a civic question may change as they reason

through different possibilities and engage in discourse with others. For example, when a person considers a question like how we should support newcomers to the U.S., this question may trigger any number of pivotal resources. An individual's civic reasoning may be shaped by their background knowledge about immigration policies in the U.S. and other countries; their own family's migration story and their personal experiences with newcomers in their communities; their racial/ethnic and linguistic identities and whether those identities are shared with or similar to recent migrants; their immigration status and that of their family's; their ideologies about national immigration policies; and their sources of deeply held ethical beliefs, like religious or moral codes. These kinds of personal resources are hard to disentangle from each other – a personal experience with migration is deeply shaped by one's racial, ethnic, and religious identities and political ideologies, for example. Equally important, students and teachers will have different sets of personal resources on which to rely, even when they have shared life experiences or identities in common. While students' prior knowledge and experiences may be complex, these personal resources serve as assets with which they can begin to engage in civic reasoning, or decide how they should live together in their communities.

Yet, traditionally, civic educators and scholars have not viewed all students as possessing legitimate resources they should use to inform their civic reasoning and discourse (Woodson & Love, 2019). Students have been cast as disinterested, unengaged in politics, and manipulated by “materialism,” “selfishness,” and “lawlessness” idealized in their popular culture (Carnegie Corporation of New York & CIRCLE, 2003, p. 13). In particular, students from marginalized communities have been characterized as having literacy deficiencies, low expectations for themselves, and an inability to participate in institutional politics (Carnegie Corporation of New York & CIRCLE, 2003; Levinson, 2012). Such research has found that low income, African

American, Latinx, and rural students perform worse on civic knowledge tests and “have less optimistic views of their civic potential than their more privileged counterparts” (Gould et al., 2011, p. 13). Therefore, instead of focusing on the civic resources that students and their communities hold, some civic education research has focused on students’ deficits and the cultural resources they supposedly lack.

Scholars who reject this discourse point to the assets that students – particularly students of color – can use to reason about and discuss civic issues. Focusing on the civic lives of Black children, Woodson and Love (2019) argued that “gap studies” in civic education frame Black children as kids that “have less, know less, do less, and hope less than middle-class White peers” (91). In contrast, civic education can and should inquire into young people of color’s accomplishments, joys, and lived experiences while pursuing rigorous and culturally informed classroom methods (Woodson & Love, 2019, p. 95). Woodson and Love called for research and teaching that affirms Black civic engagement by exploring their existing civic actions, decision-making, and collaborations. Paiz et al. (2023) made similar assertions about the ways Latinx people are often cast as disinterested and apathetic about politics yet historically have and continue to engage in broad civic actions to collectively address community problems. If civic researchers and educators look beyond institutional practices like voting behavior, Paiz et al. argued, they will see that Latinx students have insights and concerns rooted in deep community knowledge that drive their civic participation (Paiz et al., 2023). These scholars, among others, challenge visions of civic education that emphasize the deficits of students of color – and all students from marginalized communities – while ignoring their civic resources and actions.

Research on *resource pedagogies* (Paris, 2012) has documented how classrooms can be sites where students’ resources are central to academic learning. Resource pedagogies include

students' funds of knowledge (Gonzalez et al., 2011; Moll et al., 1992) and Third Space theories (Gutierrez, 2008) as well as culturally-relevant (Ladson-Billings, 1995), culturally-responsive (Gay, 2000; 2018), and culturally-sustaining (Paris, 2012) pedagogies. Research on these pedagogies has asserted that the personal resources of marginalized and minoritized students have historically been undervalued and ignored in schools (Moll et al., 1992; Gutierrez, 2008; Paris, 2012). To challenge deficit approaches that devalue the cultural assets of students of color, resource pedagogies have tried to join "home and community practices, histories, and activities of students and communities of color with dominant school ones in meaningful ways that do not devalue either in the process of school learning and access" (Paris, 2012, p. 94). When school communities incorporate and honor student resources, students can feel affirmed in their prior knowledge and experiences in ways that support their learning in and about their communities. While they have often failed to do so, teachers can learn about and celebrate students' many and evolving cultural and linguistic practices, both those that exist within group identities and across them (Paris, 2012).

Civic education scholars have drawn on resource pedagogies to further conceptualize what civic education should be (Cohen et al., 2018; Clay & Rubin, 2020). In their report on *lived civics*, or civic education efforts that attend to "race, identity, and the lived experiences of youth," Cohen et al. (2018) argue, "Young people, especially young people of color, have political knowledge and expertise that must be acknowledged, respected, and examined in civics classrooms" (p. 7). These authors recognized that traditional civics approaches typically exclude the personal experience of young people of color while valorizing knowledge about institutional democratic processes which have traditionally better served White students and their communities. In turn, a lived civics approach both positions students as experts on their personal

experiences and community knowledge and views these resources as essential assets for civic learning and engagement. For example, Santiago et al. (2021) described the power of a lived civics approach in harnessing Latinx families' cultural and linguistic resources for civic inquiry and action. Rather than create civic learning opportunities based on White middle-class norms, Santiago et al. (2021) highlighted civic actions and experiences among Latinx youth that deserve to be honored in classroom spaces, such as digital campaigns to pressure the government to stop deportation policies or Latina girls' decisions to have "activist quinceañeras" (p. 214). Classroom pedagogies can purposefully engage with these student resources and create the space for students to demonstrate their existing civic understandings and dispositions.

Together, these bodies of research emphasize the importance of students' personal resources. Young people rely on their prior knowledge and experience to learn, but historically, this kind of learning rooted in students' personal resources has been denied to students from minoritized and marginalized communities across the United States. To support the budding civic lives of all students, civic education should acknowledge and affirm all students' rich repertoires of knowledge and support students to explore how their knowledge can serve as a resource to celebrate, critique, and take action in their communities.

Multiple, Credible Sources

Pedagogies that respect and incorporate students' personal resources into civic learning lay the groundwork for democratic pluralism. Yet, our personal resources are limited. Students do not hold or cannot readily access all the resources they need to understand civic issues and democratic processes on their own. In their conceptualization of lived civics, Cohen et al. (2018) argued that students and teachers in a civic classroom are both *experts* of their own experiences and *learners* about civic topics and institutions around them. They assert that students' personal

resources are an essential place to start to interrogate civic issues, but “not the total understanding of civic engagement and democratic processes” (Cohen et al., 2018., p. 3). Put another way, young people – and adults – do not have the experiences or expertise to answer civic questions on their own (Stitzlein, 2021). Therefore, students need to engage diverse sources on both historical and contemporary issues. This engagement with multiple perspectives helps individuals build a deep, evidence-based understanding of an issue that is essential for civic reasoning (Lee et al., 2021).

Decades of civic education research has asserted that “being informed” is not simply about the consumption of one authoritative account about a social issue and its history, but the construction of an understanding through the use of multiple, credible sources. Civic education can take (and has historically taken) an assimilationist path where heterogeneous views are seen as a threat to a single (nationalistic) narrative (Ladson-Billings, 2003; Parker, 1996). To be truly informed, young people instead need to recognize that information about past and current events is almost always contested and consider multiple accounts. Historical and contemporary sources have different perspectives, informed by their backgrounds, identities, and lived experiences. In this spirit, informed political engagement is an effortful and continuous process that requires intentional participation with a plurality of perspectives, including those with different identities and ideologies (Parker, 2008). To have a deep understanding of a public issue or event, democratic citizens need to engage with others who have different points of view.

Engaging with multiple perspectives, however, is not the same as engaging with *all* perspectives. The sources of information that we rely on should be *credible*. Credible sources have both expertise – or knowledge about or deep experience with an issue – and are trustworthy – or are likely to tell the truth about an issue regardless of their political, personal, or financial

interests (Hovland et al., 1953; McCroskey, 1966; McCroskey & Young, 1981; Metzger, 2007). With limited attention and the knowledge that sources vary in quality, people must decide which sources have enough credibility to read or listen to. Simply having a perspective on a civic issue does not necessarily make one a credible source. Parker (2008) acknowledged that some political actors should not be trusted to pursue democratic ends: “Without democratic enlightenment, participation cannot be trusted: The freedom marchers of the Civil Rights Movement participated, but so did Hitler’s thugs and so did (and do) the Klan, anti-plural (monotheistic) fundamentalists, and so forth” (p. 68). Democratic life has always required individuals to pursue what Parker calls “enlightenment.” Democratic enlightenment must include the ability to discern which sources are credible enough to trust and which leaders to empower to make decisions about the issues that affect our lives (Parker, 2008; 2023).

If not all sources offer perspectives based on evidence or a commitment to democratic values, then the process of evaluating which sources to trust is essential to building informed conclusions. Teaching students to evaluate sources in pursuit of informed conclusions and actions is central to the mission of social studies education (NCSS, 2013). Students and teachers have long wrestled with what makes a source credible and whose perspectives on an issue or event are worth attending to. Consider how teachers have made choices about which issues should be considered “controversial” in the classroom. Controversial public issues (CPIs) can be defined as issues that many people publicly disagree about (Bailey, 1971) or issues about which people can hold opposing views “without those views being contrary to reason” (Dearden, 1981, p. 38). Arguing that these definitions are broad and ill-defined, Hess and McAvoy (2015) posited that controversial issues are those that are “politically authentic,” or “have traction in the public sphere” (e.g., are debated in legislatures or associated with political movements) (p. 168-

169). To help students contend with these issues, teachers can work to ensure that “competing perspectives receive a fair hearing through critical discourse” (Kelly, 1986, p. 130).

Teachers often take responsibility for deciding which controversial issues are open to discuss. Teachers use their professional expertise to decide which questions about controversial issues are “open” – or have multiple, competing views – and which are “settled” – or can be answered by a clear public or empirical consensus (Hess & McAvoy, 2015). For example, teachers may construct an inquiry into an open question like, “Which policies should my state adopt to fight climate change?” Reasonable, credible sources disagree on this question, and students could engage with those sources to understand diverse viewpoints about this climate change debate. In contrast, civic education scholars agree that a teacher should not entertain a discussion of a question about the existence of climate change, as the reality of climate change is a settled, empirical matter (Hess & McAvoy, 2015; Journell, 2017). Sources that represent a climate denial stance would not be credible: Whether the source describes themselves as a “scientist” or not, this position contradicts decades of scholarly consensus on climate change and therefore, suggests both questionable expertise and dubious motivations (e.g., financial or political interests) to obscure the truth. Therefore, teachers can point students toward credible sources by framing classroom inquiries around open, controversial issues.

While scholars have worked to conceptualize and train teachers on these practices, CPI discussions remain rare in social studies classrooms. In particular, while students may engage with multiple sources of information, they do not commonly have opportunities to *discuss* such inquiries with their peers (Hess & McAvoy, 2015; Reisman, 2015; Saye & the Social Studies Inquiry Research Collaborative, 2013). This reality is partially due to the fact that engagement with diverse sources of information about social and political issues can pose risks for both

teachers and students (Lee et al., 2021; Geller, 2020). Even in the most civil discussions of controversial public issues, students and teachers may hold different values and may inevitably find their perspectives being challenged by peers (Lee et al., 2021). Discussions of contested issues are not always that civil, however, and student discourse may represent perspectives on issues that teachers deem to be “settled” (Geller, 2020). In the final section on civic reasoning below, I turn to the conditions that make education for civic reasoning with both personal resources and credible sources particularly challenging: first, the contemporary political climate in the United States and second, the human propensity to engage in directionally-motivated reasoning.

Challenges to Civic Reasoning

The Contemporary Political Climate

For reasons described above, fostering civic reasoning in classrooms can be pedagogically complex, and the greater political context in the United States in recent years has exacerbated those challenges. The scope and scale of those challenges is too broad to discuss in depth here. Thus, below I focus on sociopolitical trends that make civic reasoning with trusted and diverse sources – both institutional sources like legacy newspapers and informal sources like peers from different backgrounds – particularly fraught.

Distrust in Institutions

A broad sense of distrust in the government and media among the general public leaves young people questioning where they should turn for credible information on which to base their civic decisions. In 2019, before a global pandemic that destabilized our public institutions, the Knight Commission documented record distrust in the media and government in the United States and internationally (The Knight Commission on Trust, Media and Democracy, 2019).

Such trends have only accelerated since then: More and more people doubt the accuracy of news media and functions of the government (Jones, 2023). In a 2023 Gallup survey, only 40% of respondents said they had a great deal or fair amount of confidence in “Men and women in political life in this country who either hold or are running for public office” – the lowest trust rating since Gallup started asking the question in the 1970s (Jones, 2023). Only 4% of respondents reported a great deal of confidence in these government officials (Jones, 2023). When asked about their trust in the media, 69% of respondents to a similar Gallup survey reported they had not very much or no trust at all in the news media (Brenan, 2024). The source of this distrust is complex and made more so by the digital information ecosystem, an issue which I return to below. Regardless of its origins, rampant distrust in the institutions that have historically communicated about public issues leaves young people– and teachers – with an uphill battle to build trust in sources that are worthy of it.

Systems of Inequality

A lack of trust in the media and government is accompanied by systems that foster significant distrust in, disconnection from, and animosity toward *each other*. In a nation characterized by systemic racism, racial segregation and economic inequality have grown since the 1990s (Massey, 2020; Menendian et al., 2021). The Othering and Belonging Institute at the University of California, Berkeley found that 81% of metropolitan areas with more than 200,000 people in the U.S. were more segregated in 2021 than they were in 1990. Eighty-three percent of neighborhoods in areas that were once “redlined” (or assigned poor ratings by federal mortgage policies) in the 1930s were still highly segregated in 2010 (Menendian et al., 2021). Therefore, if civic reasoning, at its best, requires people to understand and converse with others with diverse

life experiences, our schools will struggle to foster these communities when their student populations are likely to share similar racial, economic, and cultural characteristics.

Polarization

Further, a rise in political polarization has deepened our distrust in and bitterness toward each other. The U.S. political context is characterized by strong *affective polarization*, or hostile feelings and open animosity toward members of the opposing party, including when making nonpolitical judgments (Iyengar et al., 2019; Iyengar & Westwood, 2015). Using survey data collected shortly after the January 6th Capitol Insurrection and President Biden’s Inauguration, Kalmoe and Mason (2022) found almost 75% of political partisans believed their opponents were a “national threat” and almost 60% considered their opponents to be “evil” (p. 17). Like broad public distrust in institutions, the causes of this level of polarization are multifaceted and beyond the focus of this dissertation. But such deep polarization – particularly of the kind that associates political views with moral depravity – creates a culture where young people may not know the difference between legitimate political disagreements and anti-democratic views.

Therefore, even if students attend integrated schools with peers with experiences different from their own, the greater polarized political environment can make it challenging to create a culture of openness to multiple perspectives. Indeed, political conflict in schools has been widespread and growing, particularly in politically diverse communities in the U.S. (Rogers & Kahne, 2022). According to a survey of school principals across the United States, parents or community members have challenged the resources used in the classroom in 64% of their schools (Rogers & Kahne, 2022). In particular, almost half of all principals – and 63% of principals in politically diverse communities – reported that teaching about race and racism was challenged in their schools by community members. As classroom texts and curricula are being

called into question, students have increasingly made demeaning comments toward their peers with different political views. Students from marginalized communities in particular have faced increased harassment. For example, 32% of principals in politically diverse communities reported that students at their schools have made “hostile and demeaning remarks about LGBTQ+ students multiple times,” an increase from 10% of principals reporting the same in 2018 (Rogers & Kahne, 2022, p. xii). With such hostilities present in schools, it is hard to accomplish the kind of civic reasoning I described above that relies on respect for students’ personal resources and the deep consideration of multiple, credible perspectives.

Directionally-Motivated Reasoning

Even in healthier political climates, civic reasoning is challenging because people are biased information processors (Taber & Lodge, 2006). As we receive and try to evaluate new information, we are inclined to engage in *directionally-motivated reasoning*, the automatic and universal cognitive tendency to process new information in ways that align with prior conclusions (Kunda, 1990; Taber & Lodge, 2006). People can also engage in *accuracy-motivated reasoning*, where we are driven to arrive at an accurate conclusion, but this reasoning process is more effortful (Kunda, 1990). Even when people are motivated to pursue accuracy, our brains are still inclined to preserve deeply held beliefs (Taber & Lodge, 2006). Therefore, prior beliefs are likely to influence how we perceive the accuracy of new sociopolitical information (Rijo & Waldzus, 2023; Taber & Lodge, 2006). It requires significant cognitive effort to pursue credible information over information that just aligns with prior beliefs, or to adopt an accuracy motivation over a directional motivation (Kunda, 1990; Metzger, 2007).

Of course, our personal resources are an essential input in our civic decisions. Yet, living in a democracy requires people to be open to information that challenges their worldviews if that

information's source is credible. Taber & Lodge (2006), political scientists who study political information processing, argued, "Ideally, one's prior beliefs and attitudes –whether scientific or social – should 'anchor' the evaluation of new information and then, depending on how credible is some piece of evidence, impressions should be adjusted upward or downward" (p. 755). While it is challenging to update our prior knowledge and beliefs when facing new evidence, this kind of integration of information is essential to civic reasoning and discourse because one's personal resources are inherently limited.

Together, directionally-motivated reasoning coupled with the contemporary political environment have created the conditions for students to distrust sources of information, to have fewer real-world interactions across difference, and to be primed for strong resentment across identity markers and partisan preference. How, then, might educators foster civic reasoning in this kind of political environment in ways that honor students' personal resources and help them learn from diverse, credible sources with different life experiences? In the following section, I turn to research on civic reasoning *online* – an environment that can provide students with access to diverse, credible perspectives but also can make civic reasoning significantly more challenging.

Civic Reasoning on the Internet

Much of the vision of civic reasoning described above has been conceptualized for an analog world. For example, imagine a teacher asked their students to discuss a question like, "What should local communities do to support migrants who have fled violence to come to the United States?" This educator could elicit students' ideas from their personal resources – experiences in their own communities, background knowledge about immigration policies in the U.S., or their beliefs about how people should (or should not) support newcomers. The teacher

might also engage students in a diverse set of credible sources, such as a recent newspaper article on Haitian refugees or a primary source account from one of the Lost Boys from Sudan. As controversial issue discussions commonly go, the class could then weigh the different perspectives offered by their classmates and the sources they read and discuss different ways a community might respond to the arrival of new migrants in their neighborhoods. This classroom sequence is likely to be pedagogically challenging on its own— and it did not yet require any students to open up an internet browser or a social media feed.

The information environment that students (and adults) operate in outside – and increasingly, inside – of school blurs the boundaries between the digital and the “real” world. Digital technology is often ubiquitous in schools and the workplace, a transition accelerated by the COVID-19 pandemic. Even historically print media, like books and historical archives, are frequently digitized. For example, almost 95% of the 11.4 million subscribers to the *New York Times* opted for exclusively digital access to the paper in 2024 (Robertson, 2025). While most sources of information are now digitized, students often consume digital sources that specifically are fed to them from freely accessible platforms powered by algorithms and designed to make profit for corporations. A 2024 survey from the News Literacy Project found that 83% of teens typically get their news on social media (News Literacy Project, 2024). Therefore, for the purposes of this dissertation, I use the term digital sources to describe the creators of websites and social media posts that are generally freely-accessible (e.g., not behind library database paywalls) and driven to users through algorithmic platforms, such as Google, YouTube, Instagram, or TikTok.

How does civic reasoning change when students turn to their phones and computers for political and social information? The internet and its platforms have both offered new civic

possibilities and made civic reasoning particularly challenging. In the sections below, I first turn to the possibilities offered by the internet for meaningful civic reasoning. Then, I discuss the ways online architectures can create barriers or add complexity to civic reasoning. Finally, I return to the systemic challenges discussed above to describe how directionally-motivated reasoning, our political context, and online architectures intersect to exacerbate challenges to civic reasoning in digital spaces.

Resources for Civic Reasoning on the Internet

Digital contexts have expanded the possibilities for what Kahne et al. (2016) described as *participatory politics*, or “interactive, peer-based acts through which individuals and groups seek to exert both voice and influence on issues of public concern” (p. 2). Online environments have been the sites for young people to protest and organize in movements like Black Lives Matter, #MeToo, and the March for Our Lives. Without traditional gatekeepers, people can raise their voices and find online communities that share social and political interests and needs. These opportunities are particularly important for youth whose voices are often marginalized in other spaces (Garcia et al., 2020). While not all young people create social or political content online, they are likely to consume it. The Pew Research Center found that 86% of young adults aged 18 to 29 reported that they prefer to get their news from digital devices (Atske, 2024) and 39% of young adults alone regularly receive their news on TikTok (Leppert & Matsa, 2024).

While it is possible to find credible information online, research has produced a mixed picture of whether people online regularly have exposure to diverse perspectives at all or are simply exposed to content that represents their own beliefs. Researchers have called this phenomenon *online echo chambers* (Jamieson & Capella, 2008) or the similar concept of *filter bubbles* (Pariser, 2011). While echo chambers are commonly blamed for biased news

consumption and increased polarization in the United States, evidence suggests that echo chambers are much less common than some may assume (Arguedas et al., 2022; Guess et al., 2018; Fletcher et al., 2021). In a cross-national study, Fletcher et al. (2021) found evidence for a left-leaning echo chamber on the Web in the United States, but only about 5% of internet users regularly inhabited it. Ideologically diverse people, in fact, have been found to consume a variety of mainstream and ideological news rather than selecting ideologically-aligned news exclusively (Yang et al., 2020). In fact, online news consumption has been found to be associated with more political participation and more political knowledge in established democracies (Lorenz-Spreen et al., 2023). Notably, however, Arguedas et al. (2022) argued in their literature review on echo chambers that it was more likely that internet users did not regularly consume digital news *at all* than that they depended on sources with an ideological bent. Therefore, people who seek out news and sociopolitical information may be able to find or encounter it without a huge threat of filter bubbles.

While online echo chambers and filter bubbles may not be a central concern for informed citizenship for the average user, the internet does create or reinforce conditions that deepen obstacles to civic reasoning. Below, I focus on reasons why the activation of personal resources and access to diverse, credible sources (key elements of civic reasoning as described above) are made more complex online. I start with the features of online architectures that make credible sources particularly challenging to find. Then, I focus on the ways those architectures incentivize “hot cognition” (Redlawsk, 2002; Lodge & Taber, 2007) and directionally-motivated reasoning (Kunda, 1990). Finally, I briefly return to the discussion of the greater political context above and note the ways that distrust in institutions, systemic inequality, and polarization are exacerbated by online environments.

Challenges to Civic Reasoning on Online Platforms

Online architectures are built to feed people information quickly. Search engines, social media platforms, and other popular digital tools are powered by algorithms. An algorithm is “a computer program that orders, classifies, generalizes, predicts, and filters information online” (Kozyreva et al., 2020, p. 107). Algorithms quickly deliver content to our screens when we enter search terms into a search engine or open a social media feed. Yet, there is no guarantee that this information is relevant to us or comes from a credible source like those needed for strong civic reasoning. The companies that own internet platforms prioritize user engagement over the quality or truthfulness of information. When a user’s attention is consumed by a site or app, they will likely spend more time on that platform and in turn, encounter more advertisements from the accounts that pay platforms like Google or Instagram to promote their content (Kozyreva et al., 2020). Therefore, internet platforms are incentivized to keep users engaged on their web pages and apps, rather than provide individuals with the highest quality information. Despite the perception of choice on such platforms, it is often unclear or impossible for individuals to configure their settings in ways that would help them to receive more accurate information, especially with the opaque and ever-changing user agreements on the platforms (Kozyreva et al., 2020).

With these incentives to prioritize engagement over truth, there are very few gatekeeping mechanisms to control the production and spread of information online. Historically, the editorial processes of legacy media, publishing companies, or academic organizations provided layers of verification before information was published. While news organizations, publishers, and academics make factual errors and faulty editorial decisions, such processes provide some reassurance that the information that reaches publication is sound. As trust in and support for

such legacy media and academic organizations has declined, the internet has provided people with increased access to an abundance of alternative information sources without such editorial processes (The Knight Commission on Trust, Media and Democracy, 2019; Metzger & Flanagin, 2015). People have more choices than ever for where to seek news about social and political issues. Equally likely, people will simply *encounter* the news on social media feeds or other digital platforms without making conscious choices to seek it out (Allcott & Gentzkow, 2017; Kozyreva et al., 2020). At the same time, internet platforms facilitate the *spread* of information. Users can post information anonymously with an ambiguous username or pose as another individual. Information can be shared widely and rapidly without the influence of any kind of gatekeeper who might verify its accuracy or ensure it was produced by a credible source.

Consequently, the internet may exacerbate the challenges to civic reasoning described above. First, internet platforms have been the source of widespread mis- and disinformation in recent years. Recent disinformation campaigns have explicitly targeted users' identities and emotions to exploit existing inequalities in the United States (Kuo & Marwick, 2021). For example, the Russian Internet Research Agency interfered in the 2016 presidential election by pushing false and misleading posts to Black Americans and Americans in economically distressed geographies to suppress voter turnout (DiResta et al., 2019; Select Committee on Intelligence, 2020). As another example, social media spaces have been leveraged to spread moral panic and misinformation about immigration to the United States from Latin America, resulting in expanded anti-immigrant attitudes (Flores-Yeffal et al., 2019). Some of these campaigns have explicitly targeted students and the issues they care about deeply. In 2018, after the deadly school shooting at Marjory Stoneman Douglas High School in Parkland, Florida, survivors who spoke out against gun violence were labelled "crisis actors" in viral social media

posts and blogs. The conspiracy theorists who spread such lies sought to cast doubt on the authenticity of the experiences of the Parkland victims and their desired policy responses (Janik, 2018). In these ways, mis- and disinformation circulating online have polluted discourse about social and political issues and made evidence-based political engagement more challenging for teenagers. Young people will face obstacles to civic reasoning if they are constantly confronted with less than credible sources that spread mis- and disinformation.

Second, online environments increase our susceptibility to directionally-motivated reasoning. Social media engagement is often driven by animosity for those of opposite ideological bent, incentivizing the process of confirming one's existing beliefs and actively rejecting perspectives from others (Rathje et al., 2021). For example, internal Facebook documents from 2021 showed that their algorithm amplified divisive posts that would likely spark strong reactions from users (*The Wall Street Journal*, 2021). Social media companies want users to be engaged in the kind of "hot cognition" that will keep them on the apps, react strongly to content, and increase engagement on their platforms. Finally, online architectures also deepen systemic inequalities, political polarization, and distrust in our institutions. The introduction of digital media has been associated with increased polarization and misinformation in established democracies (Lorenz-Spreen, 2023). Trust in institutions, on the other hand, has declined with the onset of digital media, a perhaps unsurprising trend given the mis- and disinformation and vitriol described above (Lorenz-Spreen, 2023). If civic reasoning has long been difficult to foster in classrooms, these trends have only made it more so as the internet has provided new environments for polarization, inequality, and unreliable information to spread.

Teaching and Learning Civic Online Reasoning

If teenagers consistently encounter political and social information online in digital environments that make civic reasoning so hard, educators should support students to reason about and with online information. Such education is necessary if we hope students will be prepared to leverage the appropriate resources to make informed civic decisions in our contemporary world. In particular, students need support evaluating and making judgments with credible sources on issues that are likely to activate their deeply held beliefs. To support students in this work, researchers have worked to develop lessons on *civic online reasoning*, “the ability to effectively search for, evaluate, and verify social and political information online” (McGrew et al., 2018, p. 166). In this section, I synthesize the research on how students evaluate social and political information online and how teachers can support students to effectively evaluate it. Then, I explore why more research is needed that focuses on how students evaluate sources relevant to their lives that are likely to engage their personal resources.

Learning to Read Laterally

Students’ Skills

Research on how secondary students evaluate online information has painted a bleak picture (Breakstone, Smith, Wineburg et al., 2021; Kohnen et al., 2021; McGrew et al., 2018). In a nationally representative study of almost 3,500 U.S. high school students, most students demonstrated only a “basic” level of proficiency across six online evaluation tasks. Almost 97% of students in this study did not identify that the website *co2science.org* was run by climate denialists who were funded by fossil fuel companies (Breakstone, Smith, Wineburg et al., 2021). In another task, more than half of the students believed a Russian video from an unknown account was valid evidence of Democratic voter fraud in the U.S. (Breakstone, Smith, Wineburg

et al., 2021). Instead of considering whether information was produced by a credible source or if the evidence in a post can be verified, students often accepted how a creator presented their claims or relied on surface features (like the quality of a video or its number of “likes”) to evaluate credibility (Breakstone, Smith, Wineburg et al. 2021; Kohnen et al., 2021; McGrew et al., 2018). Research has shown that even college students and educated adults like university professors can struggle to identify reliable information for the same reasons (Breakstone, Smith, Wineburg et al., 2022; Wineburg & McGrew, 2019).

Fortunately, curricular interventions can support students to evaluate online information with better strategies. In particular, research has focused on teaching *lateral reading*, or the process of investigating who is behind an online source by searching the web for information about its credibility (Wineburg & McGrew, 2019). After participating in lateral reading lessons, middle school, high school, and college students have more effectively investigated the sources of online information and identified deceptive online content (Brodsky et al., 2021; Brodsky et al., 2023; Kohnen et al., 2020; McGrew, 2020; Wineburg et al., 2022). For example, high school students in a Midwestern district that received instruction on lateral reading improved in their ability to read laterally compared to students who did not receive the instruction (Wineburg et al., 2022). Such studies have shown that students can learn to read laterally and make better decisions about what to trust online through relatively brief interventions (i.e., 4-6 classroom lessons).

While students consistently improve their online evaluation skills and identify credible sources after typically short interventions, there is certainly room to improve instruction on lateral reading (McGrew & Breakstone, 2023). For instance, in the district-wide study mentioned above, students who received lateral reading instruction were more likely to show improvement

from the pretest to posttest than those in the control group (Wineburg et al., 2022). However, the average score for the treatment group on the assessments only improved from 2.93 on the pretest to 5.06 on the posttest with a possible score of 14 points on both (Wineburg et al., 2022). These assessment results suggest that students need plenty of opportunities to practice their skills and that instruction on lateral reading can be refined to help students better evaluate online information.

Challenges to Effective Lateral Reading

Why is lateral reading difficult? Research has offered a few possible explanations. As noted above, civic reasoning depends on both input from one's personal resources and external, credible sources as people reason and discuss what they should do about social and political issues. Yet, when deciding which social and political information to trust, students' personal resources and quick heuristics can create barriers to effectively evaluating sources, especially sources that offer credible information but challenge one's prior knowledge, experiences, or beliefs. I share two ways that this challenge manifests itself as students learn to read laterally below.

First, students' reasoning about a source or claim may focus on the content of a text or may manifest in their use of easy to employ but weak heuristics, or internet-based cues that are unrelated to credibility (Barzilai & Zohar, 2012; Breakstone et al., 2022; McGrew, 2021). Students may have been taught to judge online content by reading it closely or using weak heuristics (McGrew, 2021). For example, students are often taught that .gov or .edu websites are always reliable while .com websites are not. Students frequently judge the credibility of a source by its appearance, associating a professional design with more accurate information. Alternatively, students might notice cues on a social media page, like the verification status or

number of followers, to assess a user's credibility (Barzilai & Zohar, 2012; List et al., 2016; McGrew, 2021). These kinds of weak heuristics often lead students astray, as the URL, appearance, or social media presence of a source do not consistently align with any factor related to credibility. Students' use of weak heuristics emerges even as students are learning to read laterally (McGrew, 2021; McGrew et al., 2024; Reynolds & McGrew, 2025).

Second, especially when information is relevant to their lives, students may not always be motivated to search for and verify the credibility of a source during their engagement online (Journell, 2023; Middaugh, 2018). If students think the content of a post is within their zone of expertise or if they have strong beliefs or emotions related to it, they may make a quick judgment and skip lateral reading to assess the credibility of the source (Garrett & Alvey, 2021; Kahne & Bowyer, 2017; Middaugh, 2018; Reynolds & McGrew, 2025). These kinds of judgments based on students' prior knowledge and experiences even occur as they practice lateral reading in classrooms (Reynolds & McGrew, 2025). In a study of a lateral reading intervention that focused on digital posts on topics relevant to high school students' lives, students applied their personal resources to evaluate an online source or claim about a quarter of the time (Reynolds & McGrew, 2025). For example, multiple students activated their prior knowledge about climate change to reason about a TikTok post from *The Guardian* about rising sea levels in the Pacific Ocean. Many students decided the post was true without reading laterally to investigate the source. While students' personal resources led them to make a sound judgement in this case, students' personal resources led to faulty conclusions in about half of instances. When students were asked to evaluate an Instagram post from *ProPublica* that (accurately) claimed that students in Illinois were being fined by police for being truant and vaping at school, some students concluded this post was not credible before they read laterally because it contradicted their

experiences with truancy and vaping at their own school (Reynolds & McGrew, 2025).

Therefore, while relevant online content will inevitably activate students' prior knowledge and experiences, these personal resources will not always be reliable tools to assess the credibility of sources online. In contrast, lateral reading requires students to slow down to investigate a source or claim and pursue accuracy rather than rely on their initial impressions about the credibility of information.

Ultimately, these challenges for students to effectively read laterally pose equally real complexities for the teachers who try to support them. For instruction on lateral reading to be effective, teachers need to support students to learn to be aware of their tendency to engage in directionally-motivated reasoning and to build motivation to pursue accuracy. Further, students likely need to be coached to ignore weak heuristics and to investigate a variety of factors that influence the credibility of a source in the course of their lateral reading. Doing so may better prepare students to leverage the internet to explore a plurality of credible perspectives.

Teaching Civic Online Reasoning

Generally, research on how educators approach teaching students to read laterally is limited. Yet, there is good reason to expect that teachers need support to develop their own knowledge about credible online sources and how to identify them before they can effectively teach lateral reading to their students (Clark et al., 2020; McGrew, 2021; McGrew & Byrne, 2022; Weisberg et al., 2022). Further, existing research has shown that teachers often need practice responding to students' ideas during classroom instruction on lateral reading (McGrew, 2021; McGrew & Byrne, 2022).

First, teachers may need to rethink the processes they rely on to determine credibility online and prepare to orient students to these processes. McGrew (2021) found that teachers

often raised weak heuristics unrelated to credibility during lateral reading lessons. When students raised similar weak heuristics, teachers often affirmed students' reasoning and rarely challenged them to ignore these internet cues (McGrew, 2021). Beyond weak heuristics for judging internet content, teachers disagree about what makes a source credible (Clark, et al., 2020). Like students, teachers will reasonably make subjective judgments about the credibility of sources based on their information needs and personal circumstances. Yet, Clark et al. (2020) found that teachers typically rated news sources as credible when the sources were aligned with their own ideological beliefs and gave low credibility ratings to sources that diverged from their views. Therefore, teachers may demonstrate their own directionally-motivated reasoning in their judgments of credible sources (Clark et al., 2020). These findings suggest that teacher education efforts need to support teachers to examine their own processes of determining credibility, including interrogating when an ideological perspective is disqualifying for a source.

Second, research suggests that teachers need practice noticing, responding to, and (at times) orienting students to reason about source credibility during lateral reading lessons (McGrew, 2021; McGrew et al., 2024; Reynolds & McGrew, 2025). Consider the challenges raised above that students face when learning to read laterally. First, teachers need practice to coach students to consider how their personal resources may help or hinder them from making sound judgments about the credibility of a source. Reynolds and McGrew (2025) found that teachers most often affirmed students' contributions during discussions after lateral reading, regardless of the kinds of evidence that students shared or whether that evidence led students to a well-reasoned judgment about a source. Second, teachers also need to be prepared to notice students' use of weak heuristics and challenge them when they emerge in discussion (McGrew, 2021). This preparation both requires teachers to be familiar with students' misconceptions about

what makes a digital source credible and to practice noticing and responding to those misconceptions in the moment. Finally, just as teachers need to interrogate their own processes for determining credibility, they also need to anticipate which factors of a source's credibility that students might rely on. McGrew et al. (2024) found that teachers were likely to reinforce students' judgments about sources based on their political perspective alone. Alternatively, teachers can prepare to support students to weigh a potential political bias against other facets of credibility. Doing so can help students make sound conclusions about which sources might be credible despite their political perspective. Therefore, further research should probe how teacher education efforts can support teachers to recognize and respond to students' reasoning in action.

Dissertation Articles

In the work synthesized above, many questions remain about if and how teachers and students can leverage the internet to become more informed and reason about controversial public issues. In particular, only one study (Reynolds & McGrew, 2025) has explored how students evaluate sources through lateral reading during classroom lessons where the sources were chosen for their relevance to students' lives. Likewise, no studies have yet explored how teachers can support students to reason about and with their personal resources and digital sources during the scope of an inquiry into a controversial issue.

Therefore, my dissertation studies explored how students and teachers can use digital sources for civic reasoning (see Table 1). My first two dissertation articles took on this research problem by exploring first, how social studies teachers facilitate and how students participate in a classroom controversial issue inquiry and second, how professional development sessions can prepare teachers for part of this complex pedagogical work. My third and final article considered

how social studies pre-service teachers (PSTs) used social media sources to investigate a controversial issue and how they planned to use such sources with their students.

Table 1

Dissertation Articles

	Research Questions
Article 1	1. How do teachers facilitate students' participation in different parts of a classroom inquiry into controversial issues? 2. How do students use evidence from their personal resources and evidence from external, credible sources in deliberations of controversial issues?
Article 2	1. How do teachers identify and use opportunities to affirm students' personal resources and push them to consider questions of source credibility while they engage and discuss representations of teaching practice? 2. What professional development design considerations support teachers to identify and use opportunities to balance students' personal resources and evidence from lateral reading?
Article 3	1. How do social studies PSTs use social media sources to engage in core practices of participatory politics? What opportunities and challenges to engaging in the core practices do they experience? 2. How, if at all, does the opportunity to engage in a workshop focused on a classroom inquiry with social media sources shape how social studies PSTs plan to engage social media sources with their students?

Positionality and Personal Commitments

I grew up in a family that fundamentally believes in multiracial, deliberative democracy and the power of public education to help foster it. I was lucky enough to walk down the street to racially and culturally diverse public schools in my neighborhood. With my parents and siblings, I was politically engaged as a child: I handed out free coffee and donuts to people in line to vote and helped my father prepare hundreds of folders for a conference he ran every year for high schoolers to talk about race and racism in America. Through discussions with my parents and my experiences in school, I learned to understand from a young age that systemic inequalities were part of the fabric of life in the U.S. My parents showed me that it was my responsibility to

challenge such inequalities, especially those that so deeply affect the lives of children. With these kinds of values and experiences, I came of age with knowledge that our government institutions failed many of my neighbors, particularly the Black, Latinx, immigrant, and low-income people in my community. At the same time, I also learned to believe that democratic processes and institutions could and should be leveraged through active civic participation to ensure that all people in my community could thrive.

Such beliefs have been and continue to be shaped by my identities as a White, middle-class woman who grew up with significant cultural capital. I have long felt empowered to participate in democratic processes and believed they would lead to more equitable resources for all. I recognize, however, that my identities have granted me more access to institutional power than many of my neighbors, the young people of color that I have taught, and the students at the center of my dissertation. I know a true multiracial democracy has never been fully realized in the U.S. Leaders in this country have and continue to use democratic rhetoric while inflicting violence and reinforcing systems of oppression. There are certainly reasons to be cynical about the founding values of U.S. democracy, the failures of our democratic institutions, and the direction they are headed. I do not blame anyone for feeling disillusioned about the democratic process or discouraged about taking civic action.

Still, I am committed to fighting cynicism about what civic education and civic activism can do to build a more just world. At the height of President Obama's first run for President, a time of hope for democracy for many, my late father told me that "cynicism is the antithesis of democracy." I was fifteen at the time, but it felt important enough to write down and to hold on to the sentiment ever since. In this spirit, with deep acknowledgement that our multiracial democracy has not yet been realized and schools have often failed to cultivate it, I made the

commitments below to the students and teachers at the heart of this dissertation. I have committed to being responsive to them as collaborators and working to reduce barriers to informed civic participation. I also made commitments to multiracial democracy. I consistently reflected on these commitments through journaling, conversations with mentors and critical friends, and member checks with collaborators.

I committed to honoring the civic assets of the predominantly students of color who were part of my dissertation. I view these young people – the same age as those that I taught – as both knowers and learners. Students have budding civic convictions and experiences that should be valued and explored in the classroom. At the same time, I am committed to supporting them to learn about people and ideas beyond their own experiences, a cornerstone of civic education. I want students to have access to the resources, knowledge, and skills they need to thrive in a media environment that makes informed civic reasoning and participation increasingly difficult. I believe young people have the power to take meaningful action about social and political issues that are relevant to them. As an educator and researcher, my role has been and continues to be to both honor that autonomy and support their teachers and schools to reduce the barriers for young people to take informed actions for themselves and their communities.

My commitments to teachers in many ways have mirrored those of my commitments to students. The teachers that I collaborated with in my dissertation studies have essential knowledge about how to best prepare their students for civic reasoning on the internet. As an instructional coach in Project DCI, I have worked to serve as a resource to them as they engage with the curriculum, listening carefully to teachers' feedback and actively responding to this feedback with more collaboration and resources. While I have worked to hear and learn from these teachers, I also have committed to being responsive to their needs and supporting them to

grow the ways they can lead their students as they navigate a complex digital media environment. I began this Ph.D. program because I was motivated to support teachers who told me they felt lost in the fall of 2020 as they tried to talk to their students about mis- and disinformation about the U.S. presidential election and COVID-19. I continue to hold the work of teaching at the center of my research and commit to collaborating with teachers as we explore ways to navigate our political and media environment with their students.

Finally, I am committed to the work of multiracial democracy and the potential of schools to foster it. As of this writing, it is hard to summarize the level of democratic crisis we are experiencing. Anti-democratic movements and their leaders in the U.S. are inflicting a material blow to the institutions and values that undergird our already imperfect democracy. People – particularly people from marginalized communities – are experiencing violence, facing significant threats to their livelihoods, and coping with heightened uncertainty. It can be easy to feel that anti-democratic forces in the U.S. are too deeply baked into the architecture of our nation and too powerful to overcome. I do not know if this is true, but I (still) choose to work toward a vision of public education that prepares young people to build informed, pluralistic self-governance together. In collaboration with students and fellow educators, I am committed to dreaming and working for a different civic future for all of us.

Chapter 2: Facilitating Digital Inquiries into Controversial Public Issues

Social studies classrooms can be an ideal venue for exploring controversial public issues (CPIs), or political questions with competing views that are actively contested in the public sphere. By investigating CPIs, students can build their civic knowledge, skills, and dispositions while exploring sociopolitical issues that are relevant to their lives (Hess & McAvoy, 2015; Parker, 2008). For example, in the unit of focus in the classrooms in this study, students investigate the question, “Is social media more helpful or more harmful to democracy?” Over the course of several lessons, students first share their initial ideas on this question and then research and read credible digital sources about social media and democracy. Then, they engage in a deliberation using evidence they have gathered from credible digital sources and their own *personal resources* – their readily accessible background knowledge, experiences, and beliefs on the issue. Through these inquiries, students have opportunities to voice their personal resources tied to the issue *and* to consider additional credible perspectives about social media’s effect on democracy and what we should do about it (Hess & McAvoy, 2015; Lee et al., 2021). In engaging students’ personal resources and the perspectives of diverse others, such classroom inquiries mirror how students might learn about and discuss civic issues outside school.

Yet, to be successful, this kind of inquiry requires sophisticated reasoning from students and complex pedagogical moves from teachers. If we want young people to be prepared to investigate controversial public issues online, social education researchers and practitioners must explore the knowledge and skills students need and how they may develop them. Research has not yet probed how teachers and students navigate an inquiry into controversial public issues that asks students to find, evaluate, read, and use sources from authentic digital contexts to inform their developing viewpoints and engage in deliberations. Therefore, in this study, I focus on the

ways that teachers facilitate a digital inquiry process into controversial public issues and how students use resources from the internet and their own lives to deliberate about a CPI.

Literature Review

Facilitating Inquiries into CPIs

Research in social studies classrooms has found that discussions of controversial public issues are valuable for students (Hess & McAvoy, 2015; Ho et al., 2017; McAvoy & McAvoy, 2021; Pace, 2021; Parker, 2008). Through CPI discussions, teachers ideally can “foster the pursuit of truth by insuring that competing perspectives receive a fair hearing through critical discourse” (Kelly, 1986, p. 130). This “pursuit of truth” can provide students with the opportunity to deliberate about which civic decisions they might make in their own lives. While social education scholars agree about the importance of discussing CPIs, inquiries into controversial issues remain rare in schools in part because they are challenging to design and facilitate (Hess & McAvoy, 2015; Zimmerman & Robertson, 2017). It can be hard to define which controversial issue questions are worth asking in the classroom, or which issues are “open,” subject to “live controversy,” and invite multiple, contrasting perspectives (Hess & McAvoy, 2015, p. 161). Some questions – like whether climate change is real or whether women should have the right to vote – may have once been considered open to debate but are now deemed to be “settled” matters. Therefore, teachers, and the curricula they use, must try to design inquiries that focus students’ discourse on how people should live together without debating positions deemed indisputable.

Further, educators must consider which pedagogical frameworks are most appropriate for exploring controversial public issues. A common and well-researched framework is deliberation, in which students consider multiple viewpoints, seek to understand each perspective, and often

work to reach consensus on a policy issue (Lo, 2022; McAvoy & Hess, 2013; Parker & Hess, 2001). Yet, an open, balanced discussion is not always appropriate, particularly when discussing issues of injustice or power (Gibson, 2020; Hlavacik & Krutka, 2021; King et al., 2018).

Students should not be positioned to entertain or defend injustices from the past or to argue on behalf of anti-democratic movements. Instead, some controversial issues should be explored through alternative frameworks, like working to resolve a historical injustice by assigning responsibility to a historical actor (Hlavacik & Krutka, 2021) or investigating how counter-narratives provide a critical challenge to a master narrative (Crowley & King, 2018; Gibson, 2020). These frameworks are more appropriate for controversial issue questions in which students should only consider perspectives that represent democratic values and exclude anti-democratic ones, such as those defending White supremacy or Christian nationalism.

In addition to carefully planning CPI questions and choosing an appropriate discussion framework, teachers make multiple strategic decisions about what kinds of evidence students should consider. First, teachers typically curate the kinds of information that students use to discuss a controversial issue. Reading and identifying evidence from texts is an important skill in social studies classrooms: Standards emphasize the importance of assessing and using evidence from external texts to defend claims (NCSS, 2013). Focusing students' attention on external, credible sources can provide a shared evidence-base from which students can make arguments and draw conclusions about controversial issues. Therefore, teachers and curriculum materials typically select a variety of resources from different perspectives for students to explore that may lead them to better understand an issue. The Deliberating in a Democracy (see <http://did.deliberatingdemocracy.org/>) curricula is one such example. This process allows

teachers to exclude texts without empirical evidence, that represent hateful ideologies, or that argue for undemocratic positions.

Second, as teachers focus students' attention on evidence from a curated set of credible sources, teachers communicate, at least implicitly, the extent to which students can share *personal resources* as evidence in CPI discussions. Research suggests that teachers frequently neglect these resources in social studies lessons, particularly for students of color whose cultural and linguistic assets are often excluded from classroom spaces (Clay & Rubin, 2020; Gibson 2020; Santiago et al., 2021; Woodson & Love, 2019). However, students' personal resources are essential to their learning about social and political issues (Cohen et al., 2018; Lee et al., 2023). When students' knowledge and experiences are welcome, students' funds of knowledge can provide valuable and meaningful evidence in CPI discussions as they develop their civic understandings and explore ways to participate in public life (Cohen et al., 2018; Gonzalez et al., 2011; Lee et al., 2021; Moll et al., 1992). At the same time, teachers can also guide students to think critically about the *limitations* of their personal resources. No young person has extensive expertise about all the civic issues that may arise in the classroom. Further, students may share life experiences that are in conflict or in tension with each other. In these moments, inquiries into CPIs can create opportunities for students to explore both what they know *and* what they can learn more about. Therefore, while encouraging students to share personal experiences and knowledge from their lives outside of school adds unpredictability into a CPI discussion, there are good reasons to encourage these kinds of student contributions. Ultimately, however, teachers will make and communicate choices about whether students' personal resources are welcomed or discouraged in CPI discussions based on a teacher's ideas about valid evidence, their perceptions of students, and their tolerance for risk.

The decisions about which CPI questions to ask, which frameworks to use, and which evidence to invite into the classroom can significantly impact students' experiences. Even with careful planning, CPIs often spark strong beliefs and emotions that can be challenging to navigate in the classroom (Garrett & Alvey, 2021; Geller et al., 2024). While teachers can try to limit student discourse that may be misinformed or offensive, there is always a risk that learners will share ideas that can be harmful to others and outright untrue (Geller, 2020; Journell, 2011; Rogers et al., 2017; Stoddard, Fitchett, et al., 2021). Depending on the issue, students who are marginalized by systems of oppression may feel the material effects of the focal issue in their daily lives and thus, may experience real harm if their identities or livelihoods are challenged by a peer in a discussion (Sondel et al., 2018). Therefore, careful planning can create the conditions for a successful CPI discussion, but teachers will still likely make different moment-to-moment choices during their facilitation. Teachers may scaffold students' available resources for a CPI discussion differently based on the teacher's preferred pedagogies, experience leading discussions, and comfort with the uncertainty that CPI discussions entail.

Exploring Controversial Public Issues on the Internet

Exploring controversial public issues only grows more complex when we move our investigations online. When people need more information about CPIs, they likely turn to digital sources— defined, for the purposes of this study, as the websites and social media posts that are generally freely accessible (e.g., not behind a paywall) and fed to users through algorithmic platforms. Digital sources from multiple, diverse perspectives can, in theory, help students gain a well-rounded understanding of an issue. Expert organizations, journalists, and scholars publish their work online, making it possible for students to find websites and social media feeds from credentialed people on civic issues. Beyond these more “traditional” sources of expertise, the

internet is also the home to activists, movements, and communities that represent and advocate for historically marginalized voices. Young activists in movements like Black Lives Matter and the March for Our Lives have leveraged digital spaces to raise awareness, educate others, collaborate across different geographies, organize protests, and pressure policymakers to take action. In turn, the internet can provide young people with access to relevant, diverse, and credible sources that they may be unlikely to encounter in our segregated and unequal society.

Yet, for many reasons, the internet is not an open platform with an abundance of trustworthy information that enables democratic discourse. First, credible sources about controversial public issues are hard to find. Some digital sources are more credible than others – they are in a better position to provide accurate information and are more or less motivated to tell the truth (Metzger, 2007). Relatedly, the kind of public issues about which students might turn to the internet for more information are prone to disinformation campaigns. As advertising revenue and extraction of user data drive profits, social media corporations try to maximize the time users spend on their platforms rather than providing access to accurate information (Wu, 2017). Online spaces have been the sites of mis/disinformation on issues like COVID-19 (Collins-Dexter, 2020), immigration (Flores-Yeffal et al., 2019), climate change (Sinatra & Hofer, 2021), and elections (DiResta et al., 2019). With misinformation mixed up among more credible sources, students cannot simply accept all perspectives that they encounter online about a CPI (nor do they have the time and attention for such consideration) (Kozyreva et al., 2023). To make matters more challenging, sorting more from less credible sources has largely been left to individuals to tackle. Social media companies have allowed mis- and disinformation to propagate (Kozyreva et al., 2020) and some platforms are moving away from professional efforts to moderate content (Corse, 2025). Therefore, while the internet *can* provide access to diverse and credible sources

that help people understand a controversial issue, those sources may be difficult to find and evaluate.

Second, online architectures rapidly push so much content that users cannot possibly decide if each piece of information is accurate with their personal resources alone. As platforms prioritize engagement over truth, algorithms intentionally deliver sources that appeal to viewers' emotions, interests, and identities (Rathje et al., 2021; Kozyreva et al., 2020; *The Wall Street Journal*, 2021). In turn, political and social online content is likely to elicit strong reactions and automatically trigger one's beliefs, identities, and social ties (Redlawsk, 2002). Personal resources are appropriate and essential when students reason and deliberate about policy issues. Yet, if people use their initial reactions, emotions, or limited prior knowledge as the sole basis for judging credibility, they risk accepting information as legitimate only if it aligns with their existing beliefs (Kahne & Bowyer, 2017; Kunda, 1990; Taber & Lodge, 2006). This phenomenon of deciding what is accurate based on its consistency with one's prior beliefs or worldviews is called *directionally-motivated reasoning*, the automatic and universal cognitive tendency to process new information in ways that align with prior conclusions (Kunda, 1990; Taber & Lodge, 2006). When confronted with new information, people are "unable to control their preconceptions" and therefore, it can be challenging to pursue accuracy when our minds want to preserve existing beliefs (Taber & Lodge, 2006, p. 756).

Online inquiries require significant cognitive effort to pursue credible information over information that just aligns with our existing worldviews, or to adopt an accuracy motivation over a directional one (Kunda, 1990; Metzger, 2007). To live in a pluralist society, personal differences or unfamiliarity alone is not an adequate reason to assume a source is being dishonest. Therefore, in online environments where many posts look and sound similar and

creators share content with conviction, students will need to decide which sources offer a credible perspective, perhaps different from their own but rooted in evidence and offered in good faith, and which sources offer deceptive or false claims that might just *seem* “right.” Research on teaching CPI inquiries should consider the additional tools that teachers and students need to find and evaluate credible digital sources and build awareness of their directionally-motivated reasoning.

Facilitating Classroom Inquiries into CPIs with Digital Sources

How can teachers help students to investigate CPIs on an internet that is filled with less-than-credible sources representing both undemocratic and uninformed perspectives? First, teachers may need to change how they provide students with access to external sources. The digital sources that students rely on in their own civic lives are much less subject to the kind of gatekeeping than teachers often provide. When young people go online to learn about issues they care about (Eddy, 2024; Leppert & Matsa, 2024), students cannot rely on their teachers (or media organizations) to curate a set of credible sources from a range of perspectives for them to read. Second, students need to learn reliable processes for evaluating online sources. Studies on how people evaluate online information have shown that most people – students *and* adults – do not consistently or successfully decide which sources are more or less credible (Breakstone, Smith, Wineburg et al., 2021; Wineburg & McGrew, 2019). Fortunately, they can improve when they learn more effective strategies (Brodsky et al., 2021; Brodsky et al., 2023; McGrew, 2020; Kohnen et al., 2020; Wineburg et al., 2022). In particular, middle and high school students and adults can learn to *read laterally*, the process of leaving a website or social media post to open a new tab and search for more information about who is behind the original site (Wineburg & McGrew, 2019). When people read laterally to evaluate a website or post, they make stronger

judgments about the credibility of sources than if they closely read its contents or use their gut instincts to judge its veracity (e.g., Reynolds & McGrew, 2025; Wineburg et al., 2022).

Therefore, lateral reading is an important tool to support students to learn how to find and evaluate the sources they encounter online.

Finally, teachers and students need tools to confront the fact that internet environments can exploit a young person's personal resources. Even as they learn to read laterally, students can engage in the kind of directionally-motivated reasoning discussed above as they evaluate digital sources on topics they care about (Reynolds & McGrew, 2025). In a recent study in which seven high school social studies teachers taught lessons on lateral reading, students used their personal resources to decide whether a source was credible in about a quarter of instances of student discourse. In these instances, students used their background knowledge or personal experiences to assess whether the content of a post was true and therefore, whether they trusted the source. Yet, the use of personal resources sometimes led students to misguided conclusions. For example, some students in this study doubted the credibility of a source (*ProPublica*, a reputable investigative journalism organization) that accurately reported that teenagers in Illinois were being fined by police officers at school for vaping and other offenses. They were inclined to conclude that *ProPublica* was not very credible because that storyline contrasted with their own experiences in school (Reynolds & McGrew, 2025). Therefore, while students' personal resources are valuable assets for understanding sociopolitical issues, educators can help students explore the benefits and limitations of the personal resources that digital spaces provoke.

The Present Study: *Digital Civic Inquiry* in the Classroom

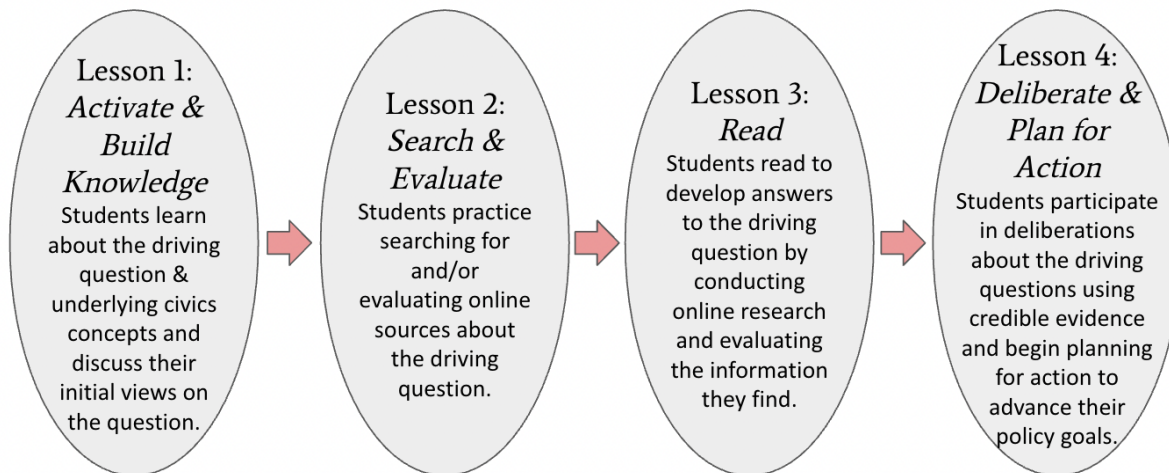
If young people rely on digital platforms for sociopolitical information, they need opportunities in the classroom to learn how to navigate those platforms effectively and how to

discuss what they learned with their peers. To do so, students can learn new skills like lateral reading, practice deciding when to read laterally and when to close read a text, and develop an awareness of the universal human tendency for directionally-motivated reasoning. Teachers are key facilitators of these opportunities. The pedagogical moves that teachers make to facilitate a controversial issue inquiry are complex and may only become more so when students need to evaluate and engage with authentic digital sources (McGrew, 2021; McGrew et al., 2024). Therefore, students' inquiries into a CPI will depend on how teachers facilitate and support the processes and resources students rely on throughout the inquiry.

To explore this complexity, this study sought to understand how teachers facilitate students' participation in a *digital civic inquiry* (DCI). The Digital Civic Inquiry curriculum is designed to be taught in 8th grade civics and has four main parts (see Figure 1 for the sequence of lessons). First, students activate and build background knowledge around civic concepts and share their initial beliefs about a controversial public issue. Then, they evaluate a variety of digital sources and decide which are credible enough to read. Third, students read credible sources to learn more about a CPI. Finally, students deliberate about the central question using the evidence collected throughout the DCI.

Figure 1

Digital Civic Inquiry (DCI) Sequence



At each part of this inquiry, the ways students engage with the controversial public issue are likely shaped by their teacher's facilitation. Students need support to draw on appropriate processes and resources to evaluate digital sources, to learn more about different credible perspectives on the issue, and to deliberate to better understand the CPI and which policy actions they might support related to it. Therefore, this study explored how teachers facilitated the activities throughout this inquiry and the resources students relied on as they discussed the CPI.

Conceptual Framework

I relied on a situated approach to understanding how teachers and students engage in a digital civic inquiry about controversial public issues in the classroom (Greeno et al., 1996; Vygotsky, 1978). Using this approach, I viewed the reasoning that occurs in classrooms as a distributed and dynamic process among individuals as they construct ideas using various resources, including other individuals, tools, and texts (Greeno et al., 1996). When teachers and students engage in digital inquiry into controversial public issues, the resources and processes that they rely on are inherently epistemic (Chinn et al., 2021). What teachers and students believe about the nature of knowledge and how they can access it will shape the resources they employ

and the processes they believe will help them gain knowledge (Elby & Hammer, 2010; Hammer et al., 2005; Rosenberg et al., 2006).

Therefore, I relied on Chinn et al.'s (2014) Aims-Ideals-Reliable Processes (AIR) model of epistemic cognition to conceptualize how teachers and students may engage in a digital civic inquiry. Teachers can seek to inculcate *epistemic aims* (A) in students, or goals related to building new knowledge (Chinn et al., 2011). A digital civic inquiry has multiple epistemic aims throughout the sequence of lessons, including evaluating the credibility of sources, identifying arguments within a text, and deliberating a controversial issue with peers. Of course, students may adopt *non-epistemic* aims, such as winning an argument or reinforcing their existing beliefs, but teachers can support students to engage in classroom activities in ways that promote epistemic aims related to building new understandings about a controversial issue. If teachers successfully coach students to adopt an epistemic aim, teachers and students may still have different *epistemic ideals* (I), or norms or criteria “for evaluating whether epistemic aims have been achieved” (Chinn et al., 2021, p. 2). For example, when students are deciding whether a digital source is sufficiently credible to read, students might hold the epistemic ideal that their aims are achieved if additional, credible sources confirm that a source of information is both an expert and is trustworthy about the topic at hand (Metzger, 2007). Alternatively, students may adopt an epistemic ideal that a digital source is credible if it “seems right” based on their existing personal resources (Reynolds & McGrew, 2025).

Finally, and most important for the focus of this study, teachers and students can adopt different *reliable epistemic processes*, the (R) in Chinn et al.'s (2014) model, to pursue their aims as they investigate a CPI online. Whether students achieve their epistemic aims during a digital inquiry or not, the processes they follow— and whether those processes can be replicated

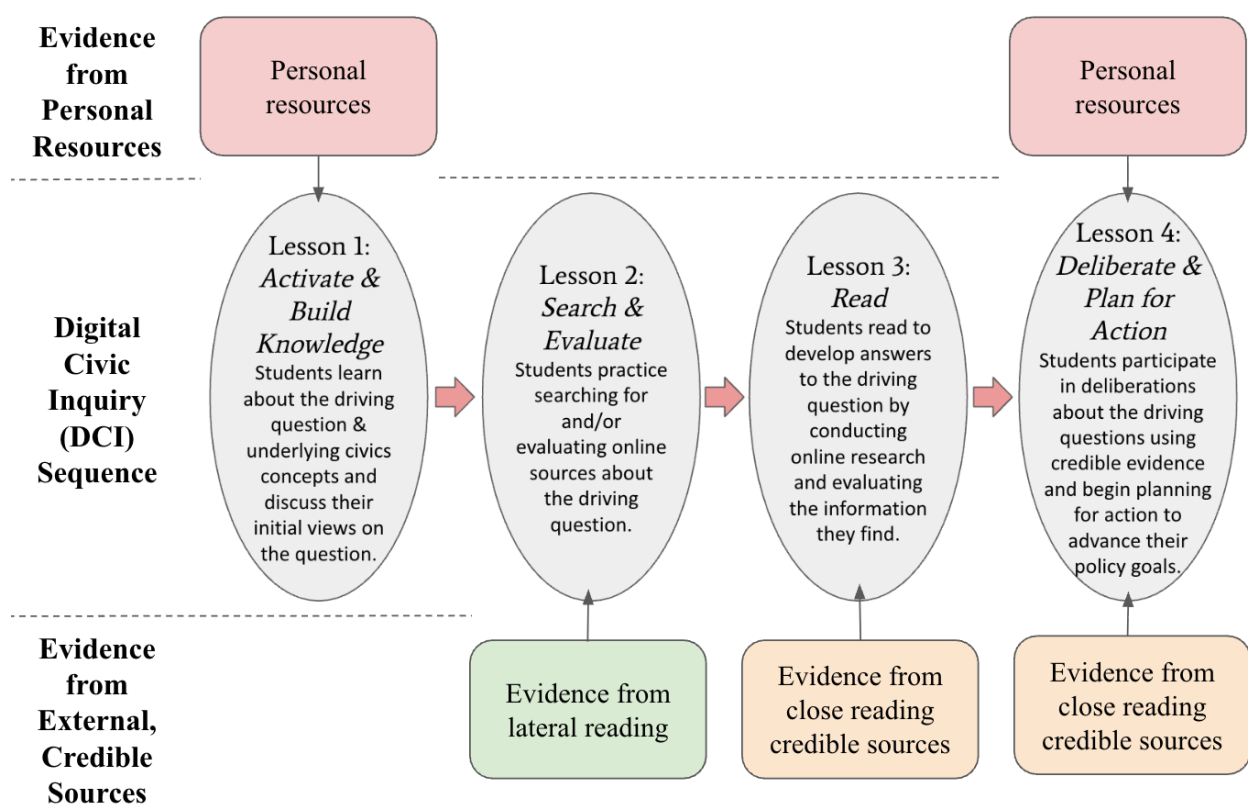
in the future to achieve similar aims— matter (Duncan & Chinn, 2025). Research on the epistemic processes students use to evaluate online information has shown that students may assess the credibility of online sources through lateral reading or engage in alternative epistemic processes, like close reading or engaging their personal resources about a topic to evaluate a source (Makellams & Lerner, 2016; Reynolds & McGrew, 2025; Wineburg & McGrew, 2019). In particular, even as students are learning why lateral reading is a reliable process for evaluating the credibility of digital sources, students often follow these other processes (Reynolds & McGrew, 2025). During different stages of a digital inquiry into controversial public issues, these processes – close reading and activating one’s personal resources – are important. However, digital inquiries into CPIs require teachers and students to follow the *most reliable* epistemic processes for each activity to achieve their specific aims.

The most reliable epistemic process for each activity changes as students make progress through a digital inquiry into a CPI. Figure 2 provides a summary of the resources students should rely on at each stage of the inquiry. Students begin by assessing their background knowledge and views on the central question. Activating and building background knowledge requires students to rely on their personal resources. When students shift to evaluating sources, lateral reading becomes the most reliable epistemic process to investigate who is behind each digital source and whether they are credible enough to read. After deciding which sources are credible and therefore worth reading, students aim to learn more about the controversial issue. To achieve this aim, close reading is the reliable epistemic process they rely on. Finally, students deliberate about the issue and consider which policies they support. During deliberations, students’ epistemic process involves integrating both their existing knowledge and experiences on the topic (their personal resources) and evidence they collected from close reading credible

sources. Therefore, the work of facilitating a digital inquiry into a controversial issue requires teachers to support students to adopt the most reliable process for their current epistemic aim – whether it be assessing their initial views, evaluating sources, close reading, or deliberating a controversial issue question.

Figure 2

Reliable Resources within a Digital Civic Inquiry



If civic educators hope to prepare students to use digital sources to become more informed about controversial public issues, students will likely need support to understand when and how to employ different epistemic processes effectively in the scope of their digital inquiries. Students' awareness of the appropriate epistemic processes to employ will likely depend on how teachers facilitate activities during digital civic inquiries. Prior studies suggest,

however, that noticing and being responsive to students' thinking is challenging for teachers. Constructivist models of teaching practice assume that teachers should elicit and respond to students' ideas during classroom instruction, but teachers often respond to students' ideas inconsistently (Kavanagh et al., 2020; McDonald et al., 2013; Richards et al., 2020). Scholars in science and math education have posited that part of the "responsiveness challenge" is a gap between how teachers and students understand classroom activities (Richards et al., 2020; Erickson, 2011). Teacher education efforts can better prepare teachers to notice and respond to students and the processes they rely on (e.g., lateral reading, close reading, etc.) if education research probes how teachers facilitate digital civic inquiries in classrooms. Therefore, this study probed how teachers facilitate students' participation in different parts of a digital inquiry and how students subsequently employ evidence in their deliberations of CPIs. I asked:

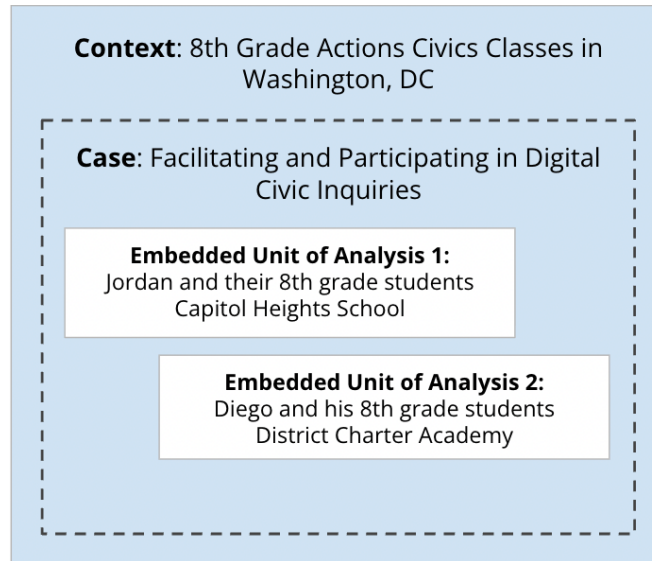
1. How do teachers facilitate students' participation in different parts of a classroom inquiry into controversial issues?
2. How do students use evidence from their personal resources and evidence from external, credible sources in deliberations of controversial issues?

Methods

Data for this study were drawn from a larger project that explored how teachers and students in Washington, DC engage in digital civic inquiries. Depicted in Figure 3, I used an embedded case study design (Yin, 2014) to compare how two teachers and their students from the larger study participated in digital civic inquiries with the different classrooms serving as the units of analysis.

Figure 3

Embedded Case Study Design



Adapted from Yin, 2014

Context and Participants

The participants were 8th grade social studies teachers and their students in Washington, DC. Diego taught at District Charter Academy, a Title I charter school in Northwest DC. He identified as a Latino male with 11 years of teaching experience and a master's degree. He taught the DCI unit within his 8th grade U.S. history class. Forty percent of students at District Charter identify as Hispanic/Latino; 26% as Black/African-American; 21% as White non-Hispanic; 10% as multiracial; 3% as Asian; and less than 1% as Native American/Alaskan Native or Native Hawaiian/Pacific Islander. The district identified 15.9% of students at District Charter as economically disadvantaged and 17.2% of students as English language learners. His class had 23 participating students. Jordan was a White, nonbinary teacher with 11 years of experience and a master's degree. They taught at Capitol Heights School, a Title I charter school in Northwest DC. They chose to teach the DCI unit within an 8th grade humanities class; 22 of their students participated in the study. At Capitol Heights, 59% of students identify as Black/African-American; 38% identify as Hispanic/Latino; and 3% as multiracial. Less than 1% identify as

Asian, Native American/Alaskan Native, Native Hawaiian/Pacific Islander, or White. The district identified 30% of students at Capitol Heights as economically disadvantaged and 67.5% of students as English language learners. Both Diego and Jordan were piloting the DCI curriculum and new district standards that would officially start during the 2025-26 school year.

The teachers in this study were recruited from the first cohort of teachers in Project DCI. Cohort 1 for the 2024-2025 school year consisted of 15 social studies teachers in traditional public and public charter schools. These teachers were recruited to participate in the spring and summer of 2024. They attended a 5-day professional development institute in July 2024 and participated in five coaching sessions with small groups of their colleagues in the project throughout the 2024-2025 school year (see Appendix A for an overview of the professional development program). Teachers in this cohort filmed various DCI lessons throughout the 2024-2025 school year as part of their participation in the larger project. Diego, Jordan, and their students were chosen to serve as the units of analysis for this study because they filmed a full unit (i.e., four lessons focused on the same central question) of the DCI curriculum. Delays in district research approvals and the fact that most teachers continued to teach U.S. history while piloting the DCI lessons meant that other participating teachers did not film full DCI sequences during the 2024-25 school year.

Curriculum Development

As introduced above, this study focused on the implementation of a six-unit, inquiry-based controversial issue curriculum called Project Digital Civic Inquiry that I co-wrote during the 2023-2024 school year (see civicinquiry.umd.edu; Figure 1 for a summary of the inquiry sequence). The DCI curriculum was developed through a collaboration between the University of Maryland, the Office of the State Superintendent of Education in Washington, DC, and the

Close Up Foundation, a nonprofit, nonpartisan organization in Washington, DC that focuses on civic education for young people through exploration of public issues (see closeup.org for more information about the organization).

The DCI curriculum was developed to align with new social studies standards that went into effect in Washington, DC for the 2025-2026 school year. The standards include the introduction of a new action civics course for 8th grade students that focuses on civic knowledge and skills, taking informed action in their communities, and developing digital media literacy. Using the driving concepts and standards from the 8th grade action civics curriculum, I worked with colleagues in Project DCI to develop six units that generally follow the inquiry arc depicted in Figure 1.

The six units each focus on a different controversial public issue (see Table 2). The controversial public issues were chosen to align with the central themes of each unit of the action civics curriculum. For example, Driving Concept 4 focuses on how democracies should balance the rights of citizens and the responsibilities of the state to protect or provide for its people. Therefore, the Project DCI team crafted a DCI focused on gun ownership and control that both represented a controversial public issue that is relevant to students and aligned with the curricular focus for this unit.

Table 2

Digital Civic Inquiry Central Questions

Driving Concept 1: The role of government in society	Driving Concept 3: Media, society, government, and digital literacy	Driving Concept 4: Rights of the people	Driving Concept 5: Power and access to power in society	Driving Concept 6: Protest and resistance	Driving Concept 7: Global issues
What, if anything, should	Is social media more helpful or	Is further restricting gun	How, if at all, should the	How, if at all, should people	To what extent should

governments do to ensure people have affordable housing?	more harmful to democracy?	ownership a valid response to concerns about public safety?	governments act to expand and protect voting rights in D.C.?	advocate for policy responses to climate change?	the U.S. provide foreign aid to other countries?
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The Project DCI team created teacher-ready lesson plans and student-facing materials for the 2024-2025 school year. These materials included lesson slides, graphic organizers, and when applicable, programmable search engines that scaffolded students' search on the internet. In response to early feedback from teachers piloting the curriculum, the Project DCI team also provided additional resources for teaching, such as texts scaffolded to different student reading levels and additional graphic organizers that could support students with less internet experience.

Lesson Sequence

As noted above, the lesson sequence in each unit generally follows the same inquiry arc. In what follows, I describe the objectives for each lesson using an example unit (Unit 3) from the curriculum that explores whether social media has been more helpful or more harmful to democracy.

Lesson 1

Lesson 1 is designed to support students to activate and build background knowledge about the relevant civic concepts in the unit and explore their initial beliefs about the central question. For example, in Unit 3, students begin by engaging in a Think-Pair-Share about the benefits and drawbacks of social media and how it affects their lives. Then, the teacher introduces the central question for the unit and leads a brief lecture on the components of a strong democracy, such as trust in one another and people with different ideas and beliefs. Students use these components to brainstorm ways that social media can help or hurt democracy, such as helping people share their experiences with one another across differences. To wrap up

the lesson, teachers share some statistics about how the public feels about the relationship between social media and democracy and assess students' initial views on the central question.

Lesson 2

In each Lesson 2, students work to develop their online evaluation skills. In Unit 3, students review what makes a source credible and are introduced to lateral reading through cognitive apprenticeship (Collins et al., 1991). The teacher models how to read laterally with a source from Meta. Then, students practice lateral reading to evaluate another source (*The Conversation*) about social media and its influence on democracy with support from their teacher, their peers, and a graphic organizer. At the end of the lesson, the students decide which sources from the lesson to keep to read in Lesson 3 to learn more about the central question. While Lesson 2 in each unit becomes progressively more challenging, each lesson focuses on students' evaluation skills as they find online sources and decide which are credible enough to read.

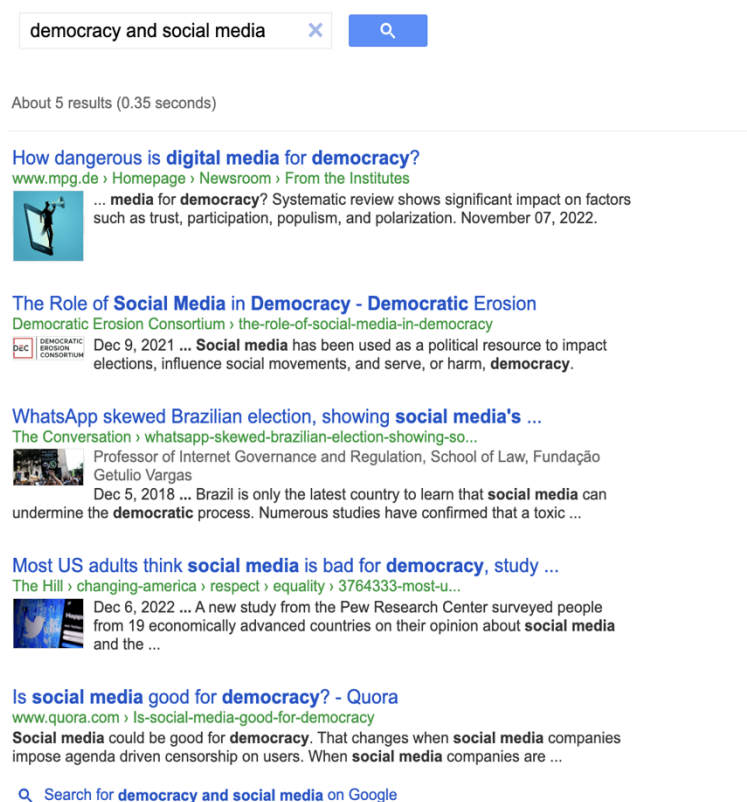
Lesson 3

In Lesson 3, students collect more credible sources and read them to identify arguments and evidence related to the central question. In Unit 3, for example, students use a programmable search engine through Google where only relevant websites are returned during a search. When students use search terms like “democracy and social media” in this search engine (see Figure 4), they are provided with a handful (5-7) of websites of varying credibility that the research team pre-selected. These websites and posts were chosen because they offer arguments and evidence about the central question and therefore, set students up to deliberate with evidence about the question in Lesson 4. As students use the programmable search engine, they are asked to read laterally on the open internet about unfamiliar sources to decide which are worth reading. For

example, after reading laterally, they might choose to read a source from *The Hill*, a newspaper that focuses on Congress, and exclude a source from Quora, a question-and-answer website that anyone can post on. After students have collected a few credible sources, they have time to read them and record important arguments and evidence on a graphic organizer. The lesson concludes with a brief discussion of students' ideas about the central question. Each Lesson 3 provides the time for students to complete this research, with a progression in lessons in later units to use the open internet rather than programmable search engines for all internet searches.

Figure 4

Example Programmable Search Engine Results Page



Lesson 4

The final lesson plan of each inquiry (Lesson 4) focuses on a deliberation among students about the central question with opportunities to plan for action. In the deliberation for Unit 3 on social media's influence on democracy, students begin by walking to a side of the classroom to show whether they are more worried or more hopeful about social media's impact on democracy. Using their placement in the room, the teacher then creates small groups of two to three students who have different ideas about the central question. In these small groups, the students take turns discussing the issue with the whole class, taking breaks from the whole-class discussion to talk about questions with their small groups. At the end of the whole class deliberation, students are asked to consider how young people might take action to make social media more helpful to democracy. The lesson ends with a quick-write about the actions each student might take. While the activities in Lesson 4 can vary, this lesson always allows students the opportunity to deliberate with their peers in small and large groups and plan to take action on the policy issue at hand.

Data Collection

Data collection for this study took place during the 2024-2025 school year. The teachers in this study video recorded classroom lessons when they taught the DCI curriculum. Each teacher was provided with a tablet and a subscription to TORSH to record their instruction. Consent to record their practice was required to participate in Project DCI, as these recordings were partially used as the basis of regular coaching sessions and additional support from coaches throughout the school year. In addition, teachers distributed consent and assent forms to students before teaching and recording their lessons and only included students in recordings who had full assent and consent to participate. Jordan recorded four lessons in Unit 3 and Diego recorded five lessons in Unit 3. I transcribed each lesson using a professional transcription service (Trint) and

then edited the transcripts for accuracy as I watched each recorded lesson. I used these transcripts as the primary source of data for this study.

Analysis

Research Question 1

To answer Research Question 1 about how teachers facilitate different parts of a digital civic inquiry, my analysis focused on qualitatively coding transcripts of the recorded lessons. I created segments of the transcripts to serve as my units of analysis for Research Question 1. Each segment was defined as a statement from a teacher or student or an exchange between the teacher and students focused on the same substantive activity from the DCI curriculum. When a teacher or students shifted activities within a single utterance, I split the utterance into two different segments to signify this shift. I began analysis by coding the activities in which teachers and students engaged during the segments. I had four codes: *activating/building background knowledge*; *searching for and evaluating sources*; *reading articles for arguments and evidence*; and *deliberating the central question*. While these activities were generally aligned with the four lesson plans in the unit, any segment of the lessons could be coded as one of these activities based on the teacher's and students' focus in the lesson. For example, when a teacher reminded students about or asked students to answer the central question (Is social media more helpful or more harmful for democracy?), I coded this segment of the transcript as *deliberating the central question* regardless of the lesson in which the question was asked. After an initial pass of coding, I added an *other* code to describe all of the other classroom activities that occurred in the lessons that were unrelated to the inquiry arc (e.g., lecture/direct instruction unrelated to the four activities above, assigning groups, redirecting classroom behaviors, solving technology

problems, or talking about grades). All segments of the lessons were assigned one of these five codes. There were 57 segments in Diego's lessons and 48 in Jordan's lessons.

Students' background knowledge can be relevant to and emerge in all four of the activities above. Therefore, I used two rules for assigning this code. First, for a segment to be coded as *activating/building background knowledge*, the teacher or students needed to specifically focus on background knowledge relevant to the *issue* or *central question* at hand (social media and democracy), rather than processes for source evaluation (e.g., a definition of "credibility") or strategies for close reading (e.g., how to paraphrase a text in their own words). Segments in which the teacher and students discussed background knowledge that pertained to *searching for and evaluating sources* or *reading articles for arguments and evidence* was categorized using those codes. Second, when teachers framed the activity of the class as *deliberating the central question* with an open-ended question related to the central inquiry, I coded instances of students sharing background knowledge to deliberate about the central question as part of this *deliberating* code. For example, when Jordan asked students to define democracy (a close-ended question at the beginning of Lesson 4), I coded this segment as *activating/building background knowledge* because students were asked to answer a definitional question with their background knowledge. When Jordan clearly shifted the activity to focus on an open-ended question for deliberation ("So we're thinking in that light, does social media make you very worried about its impact on democracy or very hopeful?"), I coded the knowledge students' shared as part of the *deliberating* activity.

To answer Research Question 1 and compare how the two teachers facilitated their students' participation in the inquiry, I recorded the time spent in each segment of the lesson transcript (e.g., Diego and his students spent 2:00 on *other* activities at the start of Lesson 1 and

then spent 3:45 on *activating/building background knowledge*). When necessary, I rounded the recorded time to the nearest 15-second interval to facilitate comparative analyses. After the duration of each lesson segment was recorded, I calculated the percentage of time spent on each activity throughout the lessons (see Table 5 below) and the percentage of time spent during each lesson segment within each lesson. As Jordan's lessons were substantially longer than Diego's, this step allowed me to better compare how the two teachers facilitated each activity within their lesson sequence. Using these calculations, I created Figure 5 and Figure 6 below to analyze and compare how the two teachers facilitated their students' participation. The themes derived from this comparison served as the basis for my findings for Research Question 1 below.

Research Question 2

To answer Research Question 2, I focused on the recorded student talk during the final deliberations within each teacher's controversial issue inquiry (conducted in Lesson 4 for Jordan and in Lesson 5 for Diego). To understand the extent to which students raised evidence from their personal resources, I recorded and categorized the arguments students raised in their initial discussions in Lesson 1. In Lesson 1 before students were given the opportunity to research the central question, students were asked to answer the questions, "How does social media help democracy?" and "How does social media hurt democracy?" Using a graphic organizer from the curriculum (see Appendix B), students shared initial arguments based on their background knowledge in response to these questions. To analyze to what extent these arguments reemerged in their final deliberations, I first identified every argument made by students in Lesson 1. I copied these arguments verbatim into a chart and assigned each a number based on the order of their appearance in Lesson 1. Then, I categorized these arguments, starting with the categories used in the Lesson 1 scaffolds (see Appendix B). Table 3 shows the categories of arguments

raised by Diego's and Jordan's students in Lesson 1. Six of the categories were present in both classrooms. There was one argument category in Diego's class (A1) and one argument category in Jordan's class (A2) that were not present in the other teacher's classroom. Table 4 provides examples from both classrooms of the arguments voiced by students in Lesson 1.

Table 3

Categories of Arguments Raised in Lesson 1 by Students

Diego's Class	Jordan's Class
A1. Governments have new avenues to influence the people.	A2. Social media can help us build trust in other people.
B. Social media expose you to people with different ideas and beliefs.	
C. Social media limit your access to people with different ideas and beliefs.	
D. Social media provide access to good information.	
E. Social media make it hard for people to access good information.	
F. Social media can promote distrust and create conflict or incivility.	
G. Social media help people have time and space to talk to each other.	

Table 4

Example Arguments Categorized from Lesson 1

Category	Student Arguments
Diego's Class	
Social media expose you to people with different ideas and beliefs.	"Even if you, like, are mainly interacting with people who have like you're saying common interests, you're still gonna be introduced to a variety of different perspectives and ideas. And even if you don't necessarily, like, pay attention to those, they're still gonna be in your mind and you're still gonna know it."
	"For a strength, you are exposed to different perspectives."
	"For a strength, more often than not, compromises between ideas hold for long periods of time, which can benefit both sides."

Jordan's Class	
Social media can help us build trust in other people.	"Social media can help build people's trust by finding others that agree with their ideas."
	"Social media can help build trust by finding people with commonalities– like similar life experiences."
	"Some people are very empathetic and are open-minded to hear others' ideas or struggles."

Next, I created a codebook to analyze student dialogue in their final deliberations. The codebook had five main codes to describe the kind of evidence that students were using: *repeats argument* (one of the arguments voiced in Lesson 1); *makes new argument* (an argument not voiced in Lesson 1); *cites DCI source* (when a student cited one of the credible sources included in the DCI curriculum); *cites unknown source* (when a student cited a “study” or “source” but did not specify its name); and *cites evidence from personal experience*. In addition, I developed subcodes to classify the *repeat arguments* based on the analysis done above. The subcodes varied slightly by teacher. The codebook for Diego’s class included arguments A1 and B-G in Table 3. The codebook for Jordan’s class included arguments A2 and B-G. Next, I deductively coded the students’ final deliberations using these codebooks. I coded student talk every time they made an argument. If no argument was present in the student talk (e.g., “Can you repeat?” or “Do you want to speak next?”), I did not code their dialogue. Further, if a student’s argument was interrupted by a peer or the teacher, I included the different turns of student talk as one argument. For example, in Jordan’s class, Malia said, “I agree with what [Anita] was saying about how, like, people should share their political beliefs and they can share, like, false information, so they can get people on their side. So, they can, like, I don’t know, like—” and Anita interrupted Malia to finish the thought, “Influence.” Then, Malia continued with, “Yeah, like, influence them and look good and vote for them. Or just like, to get more people on their

side and move them more.” In this instance, I only coded Malia’s argument once even though her argument was communicated across multiple talk turns.

To answer Research Question 2, I counted the total number of arguments made and the frequency of each code in each deliberation. Then, I calculated the percentage of each code for each classroom (e.g., the percentage of arguments in each deliberation that included repeated or new arguments or included a citation to a DCI source). I compared these percentages across the two classrooms and used these comparisons as the basis for the themes described below.

Findings

Despite the complex facilitation needed to guide students to use multiple epistemic processes, both Diego and Jordan supported their students to stay focused on the most reliable epistemic processes for each activity throughout the inquiry arc. To do so, Diego (and Jordan to a lesser extent) focused on differentiating lateral reading to investigate the credibility of a source from close reading a text to identify arguments made by an author. The teachers’ facilitation of the inquiry led students to share both evidence from their personal resources and evidence from credible, external sources in the final deliberations. Explored below, students most often revisited arguments expressed in Lesson 1 that they had developed based on their background knowledge. However, when they made these arguments, students added complexity and detail as they integrated new evidence and cited credible sources collected throughout the inquiry process. Less often, students also raised *new* arguments and shared new anecdotes from their lives outside of school as evidence for their positions about social media’s impact on democracy.

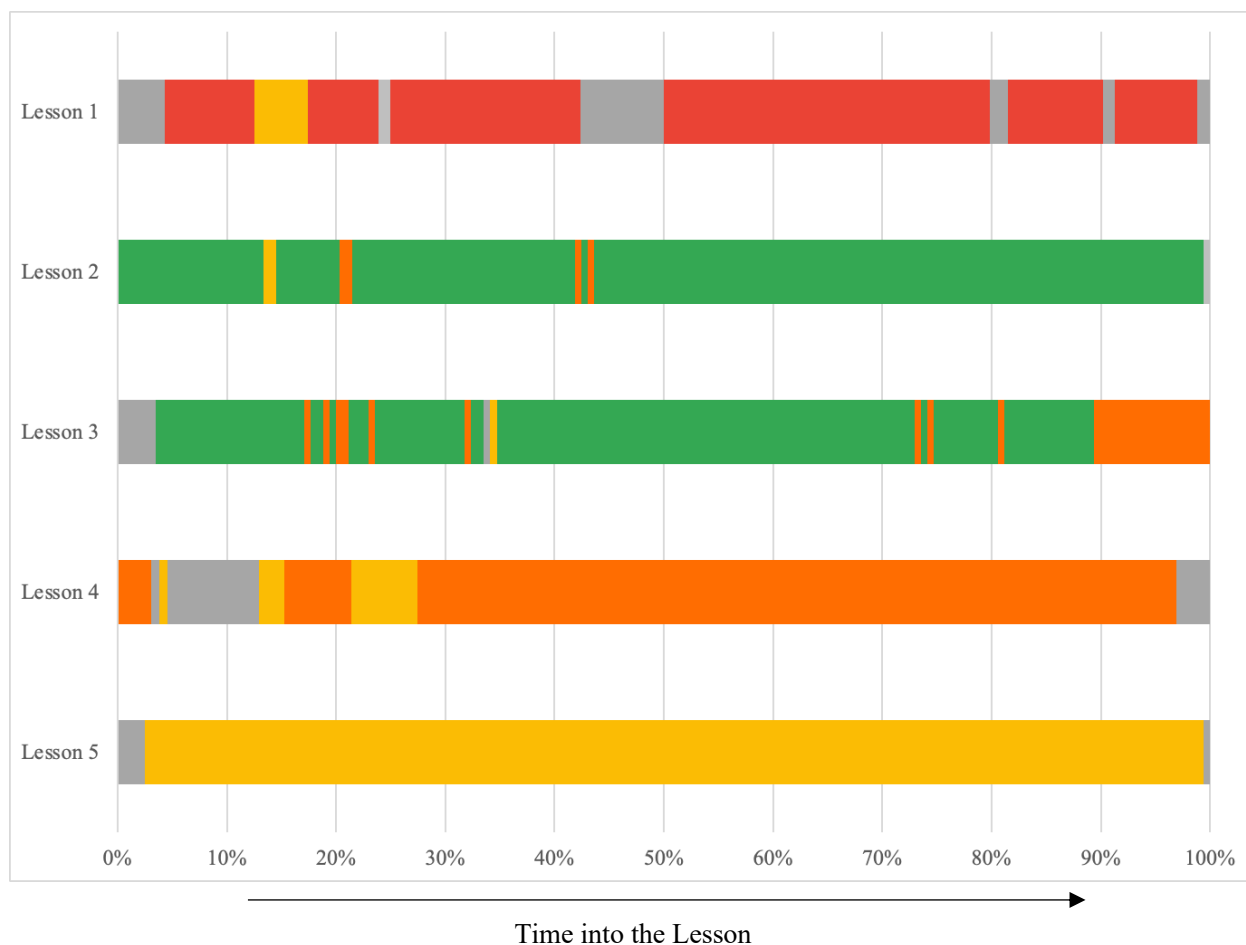
Facilitating the Digital Civic Inquiry

Diego kept students focused on the central activity in each lesson – guiding students from activating their background knowledge to searching for and evaluating sources to reading articles

to deliberating the central question. Diego distributed the inquiry arc across five approximately 45-minute lessons. As shown in Figure 5, his first lesson introduced the central question for the unit and focused on activating students' background knowledge about democracy and how social media may help or hurt key democratic practices. Diego's facilitation of the DCI then focused almost two entire class periods on searching for and evaluating sources. He introduced lateral reading at the beginning of his Lesson 2 and then provided students with time to use a custom search engine to find and evaluate additional sources to read. At the very end of his third lesson and for almost the entirety of his fourth lesson, Diego created space for students to read articles they had deemed credible. Finally, Diego supported students to deliberate the central question about social media's impact on democracy in the final lesson of his unit. While he also interjected direct instruction about civic concepts or the central question throughout the lessons, Diego and his students generally stayed focused on the sequence of activities in his inquiry arc. In turn, Diego guided his students to follow the most reliable processes at each part of the inquiry.

Figure 5

Diego's Facilitation of the Digital Civic Inquiry



Like Diego, Jordan facilitated the activities in the inquiry in ways that helped students to use the most reliable processes for each lesson objective. Jordan taught four approximately 70-minute lessons. As shown in Figure 6, in Lesson 1, they first focused students' attention on activating and building background knowledge before searching for and evaluating sources in Lesson 2. At the end of Lesson 2, Jordan asked their students to read the article they had just evaluated and deemed credible. After searching for and evaluating more sources at the start of

Lesson 3, students had time to read credible sources and collect arguments and evidence for the deliberation. The inquiry ended with an extended deliberation in Lesson 4. Jordan modified the lessons at times to activate students' background knowledge or remind students about the overarching central question they were seeking to answer. While doing so, Jordan and their students still maintained a focus on the reliable epistemic processes needed for each lesson.

Figure 6

Jordan's Facilitation of the Digital Civic Inquiry

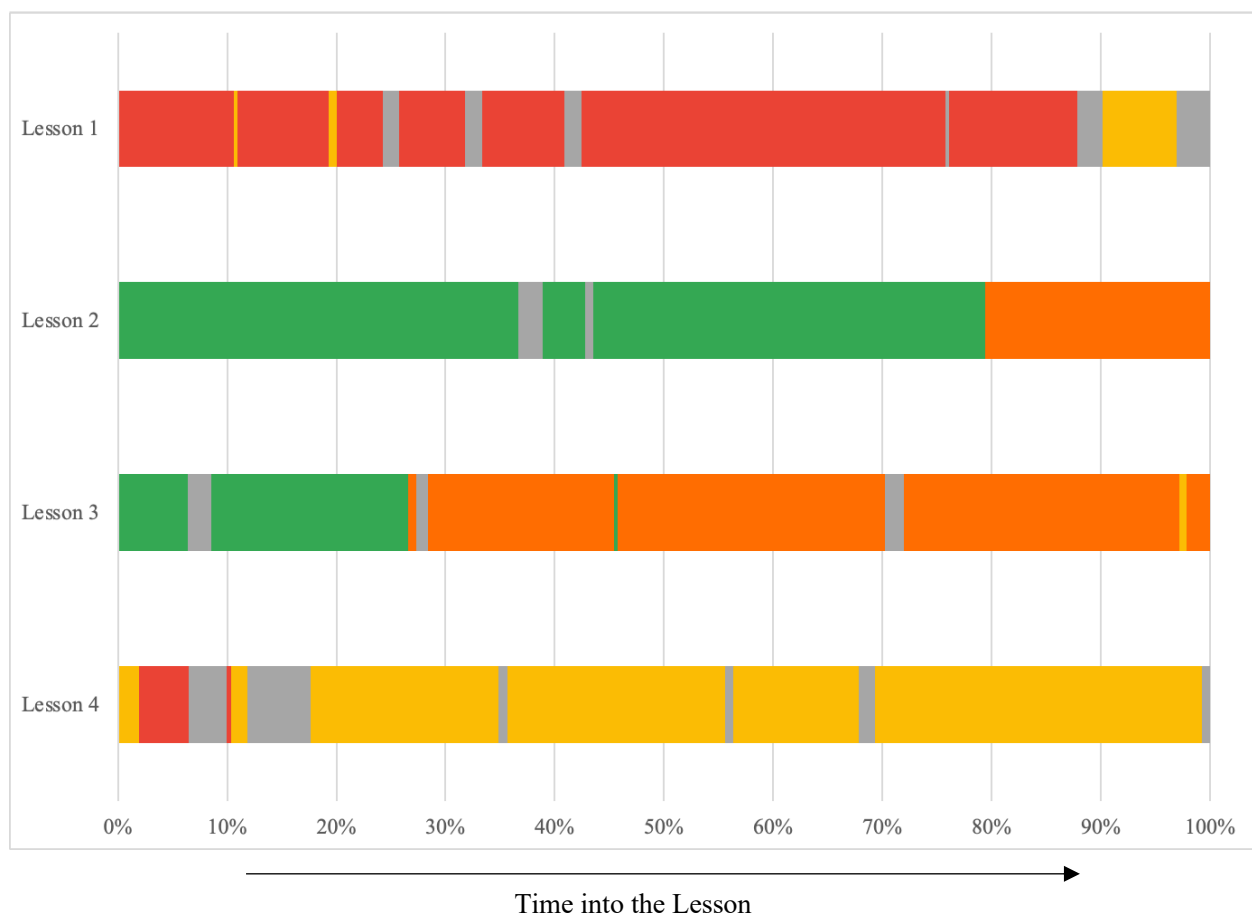


Table 5 compares how Diego and Jordan spent time with their students completing the activities in the inquiry arc. Jordan spent significantly more time (over an hour) on the inquiry sequence than Diego. Jordan had more flexibility to do so, as they taught longer class periods (90-minute blocks compared to Diego’s 45-minute periods). Also notable, Jordan’s students spent about the same amount of time on each activity in the inquiry arc. In contrast, Diego and his students spent the most time searching for and evaluating sources (75 minutes) – more than twice the amount of time spent on reading them.

Table 5

Time Spent on Each Activity in Digital Civic Inquiry Lessons

Activities	Diego’s Lessons		Jordan’s Lessons	
	Time	Percentage of Inquiry	Time	Percentage of Inquiry
Activating Background Knowledge	24:00	13.4%	55:15	22.8%
Searching for and Evaluating Sources	75:00	41.9%	65:00	26.9%
Close Reading	33:30	18.7%	62:30	25.8%
Deliberating the Central Question	46:15	25.9%	59:15	24.5%
	2 hours, 58 minutes		4 hours, 2 minutes	

Differentiating Lateral Reading and Close Reading

To help students follow the most reliable epistemic processes during the inquiry, Diego repeatedly helped students differentiate between lateral reading and close reading. Diego’s Lessons 2, 3, and 4 focused on searching for and evaluating sources and *then* researching the

issue with credible sources they found. As the process of evaluating sources was likely new to his students, Diego helped his students notice the difference between evaluating sources and reading texts. For example, in Lesson 2, Diego modeled how to read laterally about Meta, the technology company that owns social media platforms like Facebook, Instagram, and WhatsApp. After he modeled, Diego had the following exchange with his students:

Diego: Now, what did you notice me doing as I modeled? What did I do or didn't do as I modeled? The first thing when I displayed the article. The first that I did.

Devon: Look at the title.

Diego: Okay. Look at the title. And then did I read the content?

Students: No!

Diego: I focused on—

Students: The origin

Diego: And what did I do? I opened?

Students: A new window.

Diego: A new window. I typed the name of the source, in this case, Meta, and then I found out what was Meta and then, I realized it's a company that owns Facebook, Instagram, blah, blah, blah.

In this exchange, Devon recognized that Diego started by reading the title of the article during his model, as any reader is likely to do when they encounter articles online. In response, Diego asked, “And then did I read the content?” to highlight that he stopped reading the text after reading the title. In turn, students recognized that Diego did *not* read the content, but rather he first investigated the origin of the source. In examples like this, Diego focused students’ attention

on the sequence of the activities he wanted them to follow – evaluating sources before reading them – to facilitate the inquiry arc.

There was one notable moment in Diego’s Lesson 3 where his facilitation led students to mix lateral reading and close reading. Diego provided students with the following questions to answer on their graphic organizers and then asked them to work in small groups with their peers: “Who wrote this? Are they credible? Are they an expert? What others, what do other sources say about this topic? Does the source include facts, opinions, or misinformation?” These questions prompted students to engage in both lateral reading (by investigating the source and its credibility) and close reading (by analyzing the text for “facts, opinions, or misinformation”). Both activities were part of the inquiry, but the following exchange suggested that Diego intended for students to focus on lateral reading alone. Below, Sidd, one of Diego’s students, shared the questions he answered and then discussed his findings with Diego:

Sidd: Okay. [I found an article from] Georgia Tech. Okay, who wrote this? A Georgia Tech [professor] and an MIT grad. Are they credible? Yes, Georgia Tech, Georgia Institute of Technology is accredited by the Southern Association of Colleges and Schools Commission on Colleges– SACSC.

Diego: Sidd, stop right there. I like how you started. You say, yes because this is a what? Accredited. There you go. Continue please. Excellent.

Sidd: And most other sources agree with what Georgia Tech and Michael Best [the author] says. And this article openly says in, like, one of the first few lines that it’s–

Diego: We’re not looking at the article. Remember, we don’t focus on the content yet. I want you to focus on the lateral reading.

Sidd: But [the graphic organizer] says, “Does the source include facts, opinions, or misinformation?” How do I know if it’s an opinion if I don’t read it?

Diego: That’s true. Go ahead. Answer it.

Sidd: They said in like the third line that its opinion. [Quoting from the article] “Best provided the opinion.”

Diego: Who else did [this source]? The Georgia Tech? Someone else?

In this exchange, Diego interrupted Sidd when Sidd started to share information he learned from reading the text of the article. Diego tried to assert during this conversation that he wanted students to “focus on the lateral reading” and not “on the content yet.” Sidd astutely pointed out, however, that Diego’s instructions required him to dig into the text of the article. While Diego may have intended to keep the activity focused on just lateral reading, it appeared that Sidd still followed the sequence of reliable processes. Sidd’s discourse in class suggested that he evaluated the source, decided it was credible, and then started to read the text. Regardless, this was the only instance in which either teacher mixed activities.

While Diego focused on differentiating lateral reading from close reading multiple times during the middle of the inquiry, Jordan only reminded students to read laterally before reading the text once after they modeled lateral reading. In Lesson 3, Jordan asked students to describe lateral reading and then collaborated with students to search for and evaluate a source in their custom search engine, the Max Planck Society. After students read laterally and decided that Max Planck was credible enough to read, they read the text in small groups and shared arguments and evidence they collected from reading the article with the full class. Before Jordan released them to find, evaluate, and read more sources, they reminded students about the most reliable process to follow during their research:

Jordan: I'll leave this [graphic organizer] up for a few more seconds. This is your chance to ask questions. This is the plan in small groups. You're going to look for a source. Then, once you found a possible source, you will?

Students: Check if it's credible.

Jordan: Check its credibility. Once you check the credibility and said, "Yeah, great!" Then you read it and?

Students: Try to find evidence.

Jordan: Try to find an argument and evidence for that argument. Does that make sense?

As this dialogue revealed, students could repeat the steps they had learned back to Jordan: first, find a website, then read laterally about its source and evaluate its credibility, and finally, read its argument if the website came from a credible source. As Jordan guided them through this process, Jordan only provided this one reminder to support students remember the reliable epistemic processes they were trying to follow.

Students' Arguments and Evidence in Deliberations

Since Diego and Jordan guided students to collect evidence from credible sources through their online queries, the students were prepared by the final deliberations to build on the arguments and evidence they voiced in Lesson 1. Each digital civic inquiry culminated in a deliberation of the question, "Is social media more helpful or more harmful to democracy?" In the findings below, I discuss four ways students used evidence in their final deliberations: adding detail and complexity to arguments; substantiating claims with reference to an external, credible source; raising new arguments not voiced in Lesson 1; and using new evidence from their personal experiences.

Revisiting Arguments from Lesson 1 with More Complexity and Detail

Students in both classes returned to arguments made in their class discussions in Lesson 1, but they added detail and complexity to these claims in their final deliberations. In Diego's class, students returned to an argument made in Lesson 1 in 25 of the 26 (96%) of their arguments in their final deliberation. Jordan's students also overwhelmingly returned to arguments made in Lesson 1, though slightly less frequently. Jordan's students shared arguments that had been voiced in Lesson 1 in 40 of 45 (89%) of their arguments about the central question.

Consider how Jordan's students added complexity to their arguments from Lesson 1 in their final deliberation. In their initial discussions about how social media helps or harms democracy at the beginning of the unit, Marcus argued that social media can limit our access to people with different ideas and beliefs: "I said that, like, most algorithms, like the YouTube algorithm, or like, it will show you what you like and what you agree with because they want views and stuff." Just relying on their background knowledge, Marcus knew that social media algorithms on apps like YouTube can just present information that the user agrees with to keep them using the app. When students raised a similar argument in their final deliberation, they could elaborate with additional evidence for this claim. Early in Lesson 4, Jordan asked students to discuss, "What are the three biggest problems social media causes for democracy?" in small groups. When the students returned to the full group, Aleni raised the following claim:

I would like to say that, like, for the first question, one study has shown that echo chambers can emerge from social media networks, where through the isolation and possible radicalization, they also have a negative impact on democracy. And social media's echo chambers can trap people in their thinking, lacking exposure to more widespread viewpoints that they need. And this weakens a core value of democracy, which is open debate and educational opportunities.

Aleni's argument is more complex than the similar claim raised in Lesson 1. Aleni used new evidence she had collected from her research about echo chambers and how echo chambers may contribute to isolation and radicalization in democracies. She further articulated a clear link between democratic values and exposure to diverse viewpoints: "open debate and educational opportunities" allow democracies to thrive. Consistently across the deliberations, students like Aleni made arguments that had been raised in Lesson 1 but added detail and complexity to support their ideas.

Diego's students also returned to, elaborated on, and revised arguments they had made at the beginning of the unit. In one notable example, a student in Diego's class returned to the argument that governments have new ways to influence the people on social media. In Diego's first lesson, Alison argued that social media *help* democracy because, "People from the government might post things that can be very reliable because the government is less likely to spread misinformation. That's a strength..." When she revisited this claim in the final deliberation, she did so to argue that social media might *harm* democracies because governments can use it. Alison argued,

And I think the people who are harmed are just generally— I think that people running political campaigns definitely [are harmed] because information and misinformation can be spread really easily. And also, elections can be swayed by people on social media just sharing misinformation or just spreading lies and rumors which is actually according to a recent study — like, lies and misinformation actually is more popular, like, content wise than truthful content and, like, more reliable content.

Again, Alison built on her ideas from Lesson 1 but added complexity and detail. Alison argued that politicians can spread misinformation about other candidates or campaigns and supported

this idea with a fact she had read during her research: misinformation can be more popular on social media than the truth. Table 6 provides additional examples of both Jordan’s and Diego’s students elaborating on arguments in their final deliberations.

Table 6

Arguments Raised in both Diego’s and Jordan’s Classes

	Arguments in Lesson 1	Arguments in Final Deliberation
Jordan’s class	“Social media could influence people to believe in false information.” “People fake their identities, so it’s hard to trust each other.”	I want to build on her about how I think it’s [social media is] harmful because I think that social media has a problem with spreading false information which leads to a lot of political issues. Like, if you spread false information, it could affect the way people think about political-- or politics or like, when it comes to, like, our trust. The use of digital media damages our trust in political and democratic institutions.”
Diego’s class	“Social media helps us to express what we believe so that we can speak to causes we care about.”	“I want to build on what [Fatima] and [Alex] said, I feel like social media is like—there is some good on social media and people use social media to like express what they feel is wrong in the world and like social justice. And like there are many positives and young people are using social media to develop their own voice and pushing what they believe is right and what some people should be doing to believe in justice.”

Substantiating Claims with Sources

Students in both classes also substantiated arguments with credible sources from their research. Jordan’s students were more likely to cite credible sources than Diego’s students. Students in Jordan’s class cited a source in 33% of their arguments in the final deliberation while Diego’s students only cited a source 15% of the time.

When students in Diego's class referenced a source in the final deliberation, they drew on credible sources from the DCI curriculum: Max Planck Society and the Democratic Erosion Consortium. For example, Theo used the Max Planck Society when defending their claim that social media can limit one's access to people with different ideas and beliefs:

So, what we have learned that social media is bad for democracy is because, according to the Max Planck Society, social media users tend to no longer actively seek out information, and they just expect it to just come to them, which is really bad because if they don't know much about democracy, they might not feel as confident in participating in it.

In this contribution, Theo used information they had learned from the Max Planck Society to revisit an argument from Lesson 1 – that social media users do not have access to alternative viewpoints. Another student, Lauren, in Diego's class drew on the Democratic Erosion Consortium to reassert that social media hurt democracy:

So, according to the Democratic Erosion Consortium, it says how disinformation breeds more ignorance and collective identity and it [inaudible] and poses a threat to democracy. And when a person is ignorant, they really draw into the spread of misinformation and it really contributes to the spread.

Like Theo, Lauren used a source they evaluated and read in earlier lessons to defend their ideas about social media's impact on democracy. One other student quoted the Democratic Erosion Consortium and a fourth student cited "Source 2," a reference that would have been clearly linked to a specific source for the teacher and other students in the room. Overall, however, this kind of citation was rare in Diego's class.

More students in Jordan's class used sources to substantiate their ideas. Students drew on The Pew Research Center, The Max Planck Society, and two articles from *The Conversation*. For example, in Lesson 1, students in Jordan's class argued that social media created time and space for people to talk to each other in a democracy. When they reached the final deliberation, Gianna drew on an article on youth activism from *The Conversation* to revisit this argument:

“Okay, so I want to build off [Anita] when she was saying how social media was helpful... So, I said, like, social media is helpful to educate people. And like *The Conversation* said, they use social media to educate others through self-expression and to challenge what they saw as society's negative views on young people.”

In this contribution, Gianna used evidence from *The Conversation* to specify how social media can create a space for people to communicate: Young people can educate others and challenge beliefs about their generation. Jordan's students also cited the Pew Research Center, a source that students did not reference in Diego's class. For example, Anita used Pew to argue that social media can help democracy by allowing access to credible information and opportunities for people to give feedback to political candidates:

I agree with [Carlos], and I feel like it's helpful, because according to Pew Research Center, like, it says like, in countries where [Pew conducted] assessments of social media's impact, they are largely positive and like, you have a lot of resources to share your opinion and like, people can spread false information but they mostly share like true things.

In a third of their arguments, Jordan's students used credible sources to substantiate their claims like Anita did here: Anita cited the Pew Research Center to argue that social media's impact on democracy has been mostly positive around the world.

New Arguments

Because students raised similar claims in their first discussions in the unit, there is evidence that the arguments above were built on students' personal resources and developed further through their exploration of credible digital sources. Students also raised arguments in their final deliberations that were not voiced in Lesson 1: Two new arguments surfaced in Diego's class and Jordan's students made four new arguments. These new arguments were present in 23% of claims raised in Diego's class and 24% of claims raised in Jordan's class.

In both Jordan's and Diego's classes, students developed new arguments about a) how social media creates new channels of communication between people and political elites and b) how social media can promote civic action. Table 7 provides examples of these arguments in both classes. In Lesson 1, both Diego's and Jordan's students recognized that social media could create spaces for people to talk to each other, but their claims in Lesson 1 did not focus on political elites. In their final deliberations, students recognized that social media not only allows everyday people to talk to each other but allows politicians to "share stuff about their campaign and gain supporters and stuff" and allows people to express "what they want from candidates to make them happy." The other new argument that surfaced in both final deliberations focused on civic action. While students in Lesson 1 recognized that people could express themselves online, the claims voiced in Lesson 1 focused narrowly on personal expression or an individual's access to information. When students reached the final deliberations, they recognized that social media has promoted civic action and movement building. For example, Lauren in Diego's class argued that social media has helped people "develop their identities as activists" and take on "issues such as systemic racism and like, oppression." Likewise, Jordan's student Fatima drew on an article in *The Conversation* to argue that young people are educating others on issues like,

“social justice, civil unrest, police brutality, and global pandemics.” Such arguments about civic action were not present in their initial discussions at the beginning of the unit.

Table 7

New Arguments Raised in both Diego’s and Jordan’s Classes

Category	New Arguments in Diego’s Deliberation	New Arguments in Jordan’s Deliberation
Social media create more channels between political elites and the people.	“I also think that everyone can benefit from social media because if you don't really know about politics and things you can get more engaged because there's a lot of information on social media and a lot people talk about it and like another example, like politicians, they can also, like, use social media to just like spread information and like share stuff about their campaign and gain supporters and stuff.”	“I said that basically, based on Pew Research Center, like basically like, they said that the impact of social media is largely positive. And it shows that people, like, they don't have to spread false information. Instead, they can give things about, like, what they want from candidates to make them happy.”
Social media can promote civic action.	“Social media can help positively to democracy by encouraging civic engagement and civic education as well. And, um, by, for example, some young people are using social media to develop their identity as activists and push for a more just society. They're using the platforms to engage in what is like can also be referred to as digitized activism...And it's taking on issues such as systematic racism or like oppression and seeking racial justice – like any form of justice. Yeah.”	“I want to agree [with Alex], and I feel like young people seem to be more open to fighting for change and spreading ideas on platforms and social media, and like, according to <i>The Conversation</i> , they are concerned with social justice, civil unrest, police brutal and global pandemics, and a lot more, and they're like invested in the issue and their, like, actually trying to educate people on it.”

In addition, Jordan’s students made two distinct arguments that were not raised in Diego's final deliberation. First, students in Jordan’s class argued that governments have new ways to influence people. When Jordan’s students made this argument, they claimed that politicians can “can share, like, false information, so they, like, can get people on their side” and spread

misinformation about a running mate, “gaining the upper hand.” Second, one of Jordan’s students, Alex, also raised a new argument about the impact of social media on emerging democracies:

I want to disagree with [Aleni] about what she said about misinformation, because [social media] can also help spread democracy throughout the world, because it could potentially destabilize established democracies, but it can be beneficial for emerging democracies and strengthening the opposition to authoritarian regimes... [Social media] can help give the upper-hand for other, like... I mean... They... They... There is a fight between democracy, democratic– to change the government for a democratic government, and this can help with it because it can show the benefits of democracy.

While they do not specify their source for this claim, Alex was likely drawing on a webpage from the Democratic Erosion Consortium or the Max Planck Society, as similar arguments are made in these sources. In doing so, Alex broadened the scope of the discussion to consider how democracies are developed around the world, a perspective not provided in the students’ initial exploration of the topic at the beginning of their inquiry arc.

Evidence from Personal Experiences

Finally, students sometimes, but rarely, brought up evidence that clearly originated from their personal lives – evidence not present in Lesson 1 or found in one of the credible sources from the curriculum – in the final deliberations to defend their arguments. In fact, Jordan’s students did not clearly raise evidence that they had collected from outside of the curriculum at all. In Diego’s class, there were three examples of students who shared new personal resources to support their claims (found in 12% of their arguments). For example, consider the following exchange between Diego and Devon. Before this exchange, Diego had asked a series of

questions to open up the discussion and invited students to respond to any question they wished. Diego's "first question" (referenced below) was, "What are different ways that people use media to engage in democracy?" In response, Devon used their experience watching MrBeast, the YouTuber with the most subscribers as of this writing in February 2026, to defend their ideas:

Devon: So to answer the first question, I forgot exactly what it was, but I think that social media, it can influence the way people think because a lot of younger people, a lot people— they take what they know from news outlets that are actually reliable, but more young people around young adults, they like to take their news off of social media and sometimes they'll do that without fact checking and then they do that and they'll just spread it. Also, a lot of times people will ask influencers, really big influencers that have millions and millions of followers. They'll ask them about what they think about the politics and all that.

Diego: And are these influencers experts in the field?

Devon: No, not a lot of them are. Some of them are, but a lot of times the influencers they ask, like say MrBeast— I've seen it. We're in a podcast. They asked him. He said he'd rather not share because he has 200 million followers and he knows that based on what he says, a ton of people will just go based off right what he said.

In this example, Devon uses his experience watching MrBeast on YouTube or listening to him during podcasts as evidence for his argument. In his first talk turn, Devon claimed that people spread information on social media from unreliable sources "without fact checking" or they seek political information from influencers who are not experts on politics. In his second talk turn, Devon used his experience listening to or watching MrBeast on podcasts to provide evidence for his claim: People ask popular influencers for information on politics and some influencers, like

MrBeast, abstain from politics because they do not want to sway the opinions of their followers. This kind of reasoning with evidence from their lives outside of school – and outside of the credible sources they read in their research – was rare but provided examples of the ways in which students’ personal experiences can surface in deliberations of controversial public issues.

Discussion

This study focused on the ways two 8th grade social studies teachers facilitated an inquiry into a controversial public issue that required their students to search for, evaluate, and read digital sources. The teachers generally facilitated students’ progression through the controversial issue inquiry in ways that helped students follow the most reliable epistemic processes for each activity. While students were learning to read laterally, their teachers gave them reminders about the differences between reading laterally to investigate a source and close reading to gather evidence for a claim. With this guidance, students searched for sources, evaluated which were credible enough to read, and read articles on the controversial issue. Students showed evidence of this research process when they reached their final deliberations. While students returned to arguments that had been shared in Lesson 1, their claims were substantially more detailed and complex. Students shared evidence from, and sometimes cited, credible sources they had collected throughout the inquiry. In a few cases, students made new arguments and used new evidence generated both from their classroom research and their lives outside of school. Ultimately, the teachers and their students followed multiple epistemically reliable processes that resulted in students being able to have an informed discussion about a controversial public issue relevant to their lives.

This study extends research on how students learn to evaluate digital sources. It is the first to investigate lessons on lateral reading within a context of an inquiry into a controversial

public issue. Prior research taught lateral reading as a stand-alone skill without asking students to read and discuss the sources they evaluated (e.g., Brodsky et al., 2023; McGrew et al., 2024; Wineburg et al., 2022). Despite this additional complexity, students in both classrooms in this study largely focused their attention on evaluating digital sources when they were instructed to. Prior research suggested that this focused attention on evaluating sources would be challenging for students when they are evaluating an issue that is relevant to their lives, like social media's impact on democracy (Journell, 2023; Reynolds & McGrew, 2025). We might expect students to react to digital sources with their personal resources – their hunches about whether the headlines are true or their agreement or disagreement with an article's contents. Yet, students in this study did not audibly voice their personal resources related to social media while they were evaluating sources. Rather, their discourse was focused on collecting details from lateral reading about each source and assessing whether those details added to or detracted from the source's credibility. Likewise, prior research suggested that students may be inclined to read the text of articles to assess the credibility of their sources (Wineburg & McGrew, 2019). While Diego and his students sometimes started to closely read a text before or while they were evaluating its source, the students in this study largely kept straight the different purposes of lateral reading and close reading. Other civic topics may feel more relevant to students and therefore, provoke them to voice more personal resources and/or dig into close reading texts while they judge the credibility of sources. As future research explores inquiries into other controversial issues, the inquiry arc used in this study can serve as a model for teachers and students to keep these vital activities separate.

This study also contributes to research on civics instruction that aims to help students curb directionally-motivated reasoning about sociopolitical issues. The arguments that students

made in Lesson 1 dominated their final deliberations. On one hand, this trend could suggest that students were motivated to seek out evidence to affirm their existing views on social media's impact on democracy, as people inherently do (Kunda, 1990; Taber & Lodge, 2007). A more fine-grained analysis of individual students' ideas throughout the inquiry might shed light on whether students sought to confirm their initial positions. On the other hand, the goal of the lesson sequence was not for students to change their minds about social media's impact on democracy. Rather, the inquiry was designed to help students both access and assess credible evidence from different perspectives on the issue. The ways in which students returned to their arguments from Lesson 1 suggested that this goal was achieved. Students regularly used the credible, external sources they collected to support their initial arguments and cited expert outsiders who supported their beliefs. Students expanded the scope of their arguments, elaborating on the ways politicians can use social media for good or for ill and the ways civic action can build in online environments. Therefore, whether individual students affirmed beliefs they brought with them to the deliberation, they largely supported those beliefs with additional evidence and listened to peers who made different arguments knowing that their classmates had at least drawn from shared credible sources.

Designing Controversial Public Issue Inquiries for the Digital Media Environment

This study argued that researchers and teachers should explore new ways to design and facilitate controversial public issue inquiries built for the digital media environment. The internet provides students with access to a seemingly endless stream of content. At the same time, the political discourse online is characterized by “hot cognition” and mis- and disinformation (Redlawsk, 2002). No civic actor has the time, attention, or expertise to assess whether each claim they encounter is factual (Kozyreva et al., 2023). In this environment, what issues are truly

“controversial”? More importantly, which “controversial” issues are worth discussing in the classroom? This study presented a framework for the controversial public issues that should be deliberated in the classroom that differs from past scholarship. The curriculum in this study defined CPIs as the social and political questions that diverse, credible sources disagree about in the public sphere. Other prominent definitions of CPIs include issues that people “are observed to” disagree about (Bailey, 1971, p. 29), issues that people hold different “reasonable” positions on (Dearden, 1981), or those which are “politically authentic” to the public debates (McAvoy & Hess, 2015). These definitions have utility, of course, but this study suggests that they may not entirely hold in a political and media environment so polluted with mis- and disinformation.

Even in information environments filled with accurate information, individuals may “be observed to” disagree about issues that are actually “settled” empirically (e.g., some questions about climate change) and it is almost impossible to decide which beliefs are “reasonably” held (Hess & McAvoy, 2015). Further, the “politically authentic” criterion can fall short in today’s media environment where some political positions that have gained significant traction in the United States are built on the agendas of anti-democratic forces. Large portions of people in the U.S. believe falsehoods such as findings of fraud in the 2020 presidential election (Graham, 2022; Specht, 2024) or that COVID-19 vaccines are unsafe (Ittefaq, 2024). While unsupported by evidence, these ideas have become “politically authentic” in state legislatures, ballot initiatives, and public discourse (Carter et al., 2024; Steier et al., 2026). Thus, political authenticity alone may not be the best criterion for deciding which controversial issues to discuss in the classroom in our contemporary political context.

This study offers a new model for choosing which issues are controversial and worthy of discussion in the classroom. That model begins by asking, “Do diverse, credible sources in the

public sphere disagree about this issue?” The internet provides us with access to diverse, credible sources beyond a list of credentialed professionals with different ideological stances. Credible sources are those with *expertise*, or deep knowledge of, experiences with, or processes for producing accurate information about an issue, and are *trustworthy*, or likely to tell the truth regardless of their ideological or financial interests (Metzger, 2007). Relying on this definition, the controversial issue questions in this study were designed by considering which issues are debated by diverse, credible sources— not just what issues feel politically authentic in contemporary public discourse. Therefore, our design of controversial issue inquiries relied on a new premise: If diverse, credible sources are debating a question in the public sphere, students can deliberate about that question in the social studies classroom. If diverse, credible sources are *not* defending certain perspectives on an issue, then perhaps those perspectives should not be open to discuss. It is essential that students are included in the process of choosing the diverse, credible sources to read. By inviting students into the process of evaluating who is credible enough to give attention to, teachers and students can co-construct the bounds of the deliberation about the controversial issue. This process of constructing a controversial issue inquiry is made for the internet where students’ attentional resources are more precious than ever. With these insights, future research can continue to explore exactly how the perspectives of diverse, credible sources can guide our design and facilitation of lessons on controversial issues.

Limitations

This study has a number of limitations. First, this study only focused on two teachers and their students. Additional teachers may approach teaching the controversial inquiries at the heart of this study in different ways and in turn, provide different opportunities for students to deliberate a controversial issue. More research in additional classroom contexts, including those

outside of Northwest Washington, DC, is needed to understand whether other teachers and their students mirror the approaches taken in this study. Second, the curricular unit at the focus of this study may not have provoked particularly emotive personal resources from students. While students likely have experiences with, opinions on, or exposure to social media, they may not have strong feelings about social media's impact on democracy. Future research should explore how teachers facilitate and how students engage in additional controversial issues inquiries, such as gun control or climate change, about which students may have more affective background knowledge, personal experiences, and beliefs. Third, the video recordings collected for this study did not sufficiently capture small group dialogue or non-verbal communication for these data to be analyzed in this study. Additional video or audio recordings or classroom observations may have provided further insight into the reasoning of teachers and students in the study. Finally, I was unable to interview the teachers in this study before or after they taught the lessons. Teachers' stated goals and reflections on their facilitation may have provided additional data to understand how and why they approached their teaching.

Implications and Conclusion

The internet and the ubiquity of devices that we use to access it have changed the processes by which young people investigate controversial public issues. If students are turning to social media feeds and search engines to learn more about the issues they care about, educators must prepare them for these kinds of digital inquiries. While traditional controversial issue pedagogies can guide teachers, this study shows that educators can also incorporate lessons on effectively evaluating online information into inquiries into CPIs. The students in this study were able to integrate their personal resources with evidence from credible digital sources. In doing so, students started to become better prepared to engage in contentious issues through our

contemporary media environment. Future research can explore how students can extend the reliable processes they learn within a digital civic inquiry into other contexts and whether participating in a DCI can help them develop a bank of credible sources to consult about local and national issues.

While the work of these teachers and students shows what is possible, facilitating and participating in the kind of controversial issue inquiry in this study remains complex. The teachers in this study had five full days of professional development and additional coaching sessions to prepare to teach digital civic inquiries. More research is needed to understand how this professional development supported teachers. The findings in this study suggested that the teachers learned key pedagogies as they prepared to teach the DCI curriculum. As future research explores how teachers lead digital civic inquiries on other controversial issues or in other contexts, teachers need time and space with teacher educators and each other to interrogate the complexity of leading a controversial issue inquiry with digital sources.

The challenges to engaging in this kind of inquiry are significant, but it is for that reason that education research should probe how teachers and students engage in it. Civic engagement and democratic governance depend on how people can reason about and discuss how we should live together. As that reasoning is increasingly done online, our schools need to prepare young people to engage the appropriate resources to spot sources that are not committed to our shared democratic project, to understand the views of diverse sources, and to deliberate about how we can take informed action.

Chapter 3: Considering Personal Resources amidst Credibility Judgments: Preparing Teachers to Discuss Digital Sources with Students

In 2023, RAICES Texas, a legal advocacy organization for immigrant communities, posted a video on Instagram about a *New York Times* investigation into the use of child migrant labor in the United States (Dreier & Luce, 2023). The video highlighted companies named in the investigation, like General Mills, PepsiCo, and Ford, with the blurry *Times* article scrolling in the background. When students in a high school classroom were asked to evaluate this post, some students doubted the credibility of RAICES Texas and the story it posted, stating “It doesn’t make sense because most of those companies are big enough that if they are going to have child labor, they could do it overseas. It doesn’t make sense for them to do it in the U.S.” and “A lot of this child labor is usually exploited overseas, and like, maybe that happens here, but it’s not likely these companies would choose to do that here.” In response, their teacher said, “Okay” and asked for others to share their reasoning about the post.

Other students in this same discussion relied on a different kind of evidence to draw conclusions about RAICES Texas and its video. Some students shared evidence they learned from *lateral reading*, or the process of leaving a website or post to investigate its source on external, credible sources (Wineburg & McGrew, 2019). For example, after reading laterally, students shared that RAICES Texas seemed credible because it was a non-profit organization and received donations. Another student shared that they found that “the *New York Times* has an article about migrant children working” and “it seemed a lot more reliable on their website.” At the end of the discussion, the teacher said “Okay, thanks” and shifted the conversation to a new topic.

The evidence these students used to reason about RAICES Texas was vastly different and led to contrasting conclusions about the source. Some students relied on *personal resources*, or their readily accessible background knowledge, experiences, and beliefs, as evidence with which to evaluate the post (Reynolds & McGrew, 2025). This reliance on personal resources led these students to confirm their existing beliefs and doubt the accuracy of the claim made by RAICES Texas. In contrast, other students reached a different conclusion about the source by drawing on evidence collected from lateral reading, like details about the source's funding mechanisms or the central claim in the video. Despite these contrasting judgments, the teacher treated the evidence students used to evaluate the source in this activity in the same way: He acknowledged each student's response and moved on.

This discussion occurred in the context of a lesson on lateral reading. Discussions after lateral reading are excellent opportunities for teachers and students to co-construct an understanding of the credibility of sources. In such discussions, teachers can support students to draw conclusions about credibility based on the clues about the source that students learned from reading laterally. Yet, for teachers like the one above, discussions after lateral reading are challenging to facilitate (McGrew, 2021; McGrew et al., 2024). Leading a discussion after lateral reading is likely to be particularly complex when students are evaluating posts or websites about issues relevant to their lives, or issues in which students have prior knowledge, experiences, or beliefs. Just as students had prior conceptions about migrant labor in the U.S. in the example above, students are likely to make connections to the topic of online posts and use these resources to decide if a piece of online content seems plausible. However, research has not yet probed how teachers learn to notice and respond to students' use of personal resources in these discussions. Students' contributions from their own lives are important resources for their

learning and valid in the exploration of social and political issues like child labor and migration. Yet, students likely need support to decide when their personal resources are limited in scope and when evidence from other credible sources is more appropriate to rely on or needed in addition to their personal resources. Thus, this study explored a practice-based professional development (PD) effort to prepare teachers to facilitate source evaluation discussions after lateral reading in which students bring in evidence from their personal resources.

Literature Review

When they encounter online information, students – like the rest of us – are inclined to confirm their existing beliefs about issues relevant to their lives, regardless of the credibility of a source. Instruction on effective strategies like lateral reading can help students make conclusions about digital information, but teachers may struggle to navigate students’ personal resources when they arise as students evaluate online sources.

Motivated Reasoning

Humans are wired to accommodate new information into our existing schemas (Bransford et al., 2000; Redlawsk, 2002). This process occurs automatically and largely unconsciously, particularly as we process new political and social information that is intimately tied to our emotions and beliefs (Lodge & Taber, 2007; Redlawsk, 2002). Automatic reasoning processes allow us to make essential, quick judgments that are necessary for daily life, but this kind of “hot cognition” also makes us biased processors of information, or *motivated reasoners*. Lodge and Taber (2007) described the process of motivated reasoning as “the systematic biasing of judgments in favor of one’s immediately accessible beliefs and feelings” (p. 35). In other words, when we confront new information, we (often unconsciously) search for ways to

accommodate the new information with our existing worldviews (Redlawsk, 2002). When information is incongruent with our existing schemas, we are all more likely to reject it as false.

Importantly, however, our reasoning can be motivated by either *directional* goals or by *accuracy* goals (Kunda, 1990). Humans are naturally inclined to engage in directionally-motivated reasoning, or the motivation “to arrive at a particular conclusion” (Kunda, 1990, p. 482). This kind of directionally-motivated reasoning can manifest in a person’s search for evidence to justify a judgment about information that they were already inclined to make. In contrast, people can also adopt accuracy goals and focus their attention on reaching an accurate conclusion (Kunda, 1990). Pursuing an accurate conclusion requires more cognitive effort but also increases the likelihood that one will rely on reliable processes and strategies that will reduce biased reasoning and lead to better-supported conclusions (Kunda, 1990).

When people evaluate online information on topics that induce strong beliefs, they are unlikely to immediately pursue effortful evaluative processes like lateral reading. Rather, they are more likely to make snap judgments by accepting information that affirms their beliefs or rejecting information that challenges them (Kunda, 1990; Taber & Lodge, 2006). While it is impossible to know the exact motivations of the students in the example from the classroom above, consider how students may have demonstrated motivated reasoning. Likely unconsciously, the first set of students encountered information that was incongruent with what they already believed— that child labor occurs outside of the United States but does not occur within the country. In turn, the students used this incongruence in information as reason to conclude that the source itself was not credible: To them, RAICES Texas might not be credible because the claim in the post contradicted their existing knowledge about child labor. Alternatively, the second set of students appeared to be more accuracy-motivated. Regardless of

their prior beliefs about RAICES Texas, migrants, or child labor, these students reported details about the source retrieved from credible websites online through lateral reading. While it likely took more cognitive effort, the second set of students reached beyond their automatic reactions to the post's content to gather evidence for their conclusions. Students' directional and accuracy-driven reasoning are both likely to surface in lateral reading lessons when students are evaluating online sources about social and political topics that are relevant to them. Therefore, teachers need to prepare to notice the different ways students approach evaluating sources and to respond to them in ways that support students to make sound judgments.

Lateral Reading Instruction

Extensive research suggests that youth and adults alike need more support to learn to effectively evaluate online information (e.g., Breakstone, Smith, Wineburg et al., 2021; Hassoun et al., 2023; Guess et al., 2019). Like in the introductory example, evaluating information via lateral reading may be particularly challenging when sources focus on contentious issues about which the evaluator has pre-existing knowledge or beliefs. Therefore, we can expect that students will need support to learn how to pause and prioritize accurate evaluations. Explicit instruction can support students to learn effective evaluation strategies (e.g., Brodsky et al., 2023; Hämäläinen et al., 2023). Consistently across interventions and age groups, lessons that teach students to read laterally show evidence of helping students reach better-informed decisions about the credibility of online sources (Brodsky et al., 2023; Kohnen et al., 2020; McGrew, 2020; Wineburg et al., 2022). As a result, lateral reading is now widely recommended in classroom curricula (e.g., The News Literacy Project, n.d.) and libraries (e.g., Detmering et al., 2024) as a reliable method for evaluating sources online. However, most existing lessons were not explicitly designed to include websites or posts about which students have prior knowledge,

experiences, or beliefs. In an exception, Reynolds and McGrew (2025) found that many students successfully learned to read laterally to make judgments about sources during classroom lessons that were designed with digital information on topics that students said they cared about. Not surprisingly, however, students also routinely attempted to use personal resources to evaluate credibility (Reynolds & McGrew, 2025).

Decades of research shows that students learn new knowledge and skills by building on their existing personal resources (Bransford et al., 2000). Such personal resources are essential to our civic reasoning, and reacting to online content based on them is human nature (Garrett, 2019; Journell, 2023). Yet, our evaluations may be shallow or biased if we rely *only* on them. Therefore, teachers need to affirm student resources in the classroom while also communicating that the sole use of personal resources to evaluate a source may lead students to reject a source that offers credible evidence. Instead of judging a source based on their preference for its message, students in lateral reading lessons should practice how to consider a source's trustworthiness and expertise – its *credibility* – on the topic (Kahne & Bowyer, 2017; Metzger, 2007).

Therefore, during lessons on lateral reading, teachers play a key role in supporting students by affirming their personal resources and helping them consider when those resources are limited. Research on teaching lateral reading suggests that teachers need time and practice to develop their facilitation skills for lessons on lateral reading. Teachers may need opportunities to learn effective strategies themselves (Clark et al., 2020; Weisberg et al., 2022) and to plan for how to teach those strategies with students (McGrew, 2021). Further, teachers in lateral reading lessons may take up and affirm students regardless of the kind of evidence they use. For example, in prior research, teachers rarely asked why students relied on personal resources to

judge a post or encouraged them to consider alternative strategies (Reynolds & McGrew, 2025). Because teaching online evaluations likely grows more complex when students employ personal resources alongside evaluation strategies like lateral reading, teachers need additional support through PD to prepare to facilitate these discussions. In this study, I used practice-based teacher learning approaches to investigate how to better support teachers to anticipate and respond to these personal resources in ways that both affirm students and push them to fully evaluate a source's credibility.

Practice-Based Teacher Education and Professional Development

Practice-based teacher education (PBTE) emerged in response to the reality that teachers learn theories and concepts in their preparation programs, but do not always successfully translate those ideas into classroom practices (Grossman, Compton, et al., 2009). Therefore, PBTE has focused on ways to support teachers to practice the act of teaching during their training while they have opportunities for support from teacher educators (TEs) and their peers. In particular, practice-based teacher educators may help novices analyze and rehearse *core practices*, or high-leverage and complex pedagogies that occur frequently across classrooms and improve student learning (Grossman, Compton, et al., 2009). For example, recent research has focused on discussion facilitation as a core practice and explored how PBTE can support pre-service teachers to become stronger discussion facilitators (Kavanagh et al., 2019; Reisman et al., 2018). Kavanagh et al. (2019) found that practice leading a discussion in teacher education courses helped novice teachers explore both the practice of facilitating a discussion and the process of teaching content knowledge in social studies.

Practice-based teacher education can support teachers to learn challenging practices through a cycle of learning where teachers investigate and then enact focal teaching practices

(McDonald et al., 2013). First, teacher educators provide *representations* of a focal practice. Then, teachers collaboratively *decompose* the practice to understand its core elements, and lastly, teachers *approximate* the practice in their classrooms or, as in this study, in rehearsals of practice within a PD session (Grossman, Hammerness, et al., 2009; Lampert et al., 2013). Through this cycle, teachers can learn to engage in an ambitious practice in the relative safety of their community of peers and teacher educators. If errors are made or uncertainties arise, teachers can find support from this community and revise their pedagogical practices before they try them out with actual students.

While studies of PBTE methods have primarily focused on pre-service teachers (Matsumoto-Royo & Ramírez-Montoya, 2019), practicing teachers have also engaged in learning cycles with the pedagogical tools of representation, decomposition, and approximation of practice. For example, practice-based professional development (PBPD) has focused on science teachers' creation of formative assessments (Heredia et al., 2016) and their facilitation of scientific discourse in the classroom (Fishman et al., 2017). Rehearsals have been used with practicing math teachers in PD focused on noticing and attending to student thinking (Baldinger & Munson, 2020) and with practicing ELA and social studies teachers in PD that explored the facilitation of source credibility discussions (McGrew, 2025). In studies like these, PBPD has supported practicing teachers to grow their pedagogical expertise.

The professional development activities in this study further relied on Desimone's (2009) theory on how professional development can support teachers' learning. As outlined in Figure 7, Desimone's conceptual framework shows how high-quality professional development can help teachers develop knowledge and skills that can improve their instruction and in turn, student learning.

Figure 7

Conceptual Framework for Studying the Effects of PD on Teachers and Students

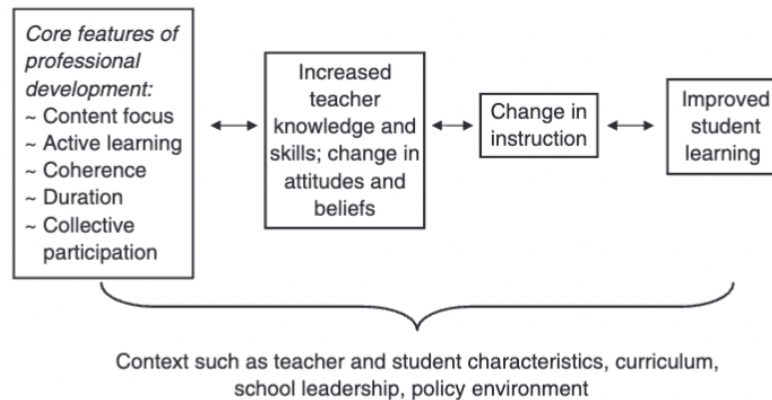


FIGURE 1. *Proposed core conceptual framework for studying the effects of professional development on teachers and students.*

From Desimone, 2009

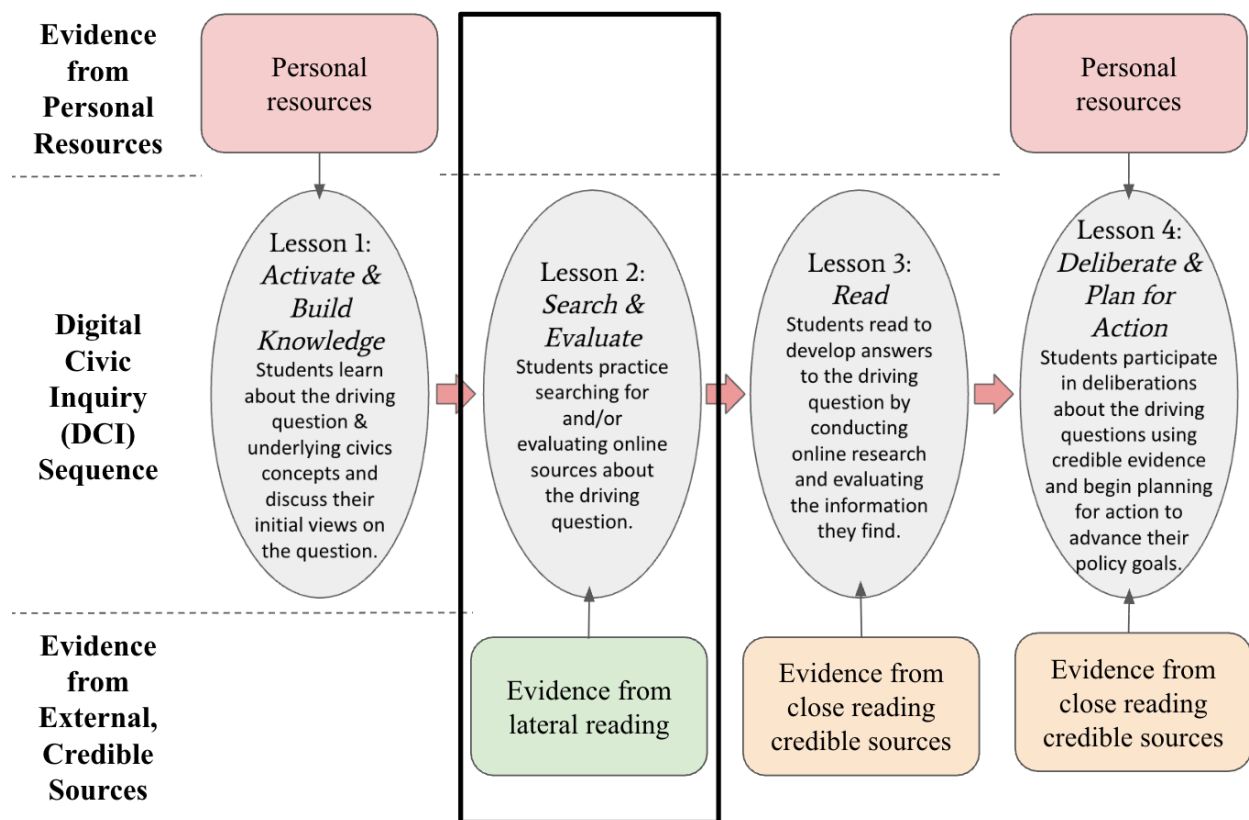
The PD in this study was designed to satisfy Desimone’s core features of professional development. There was a clear content focus – the evaluation of online civic information – which was closely aligned to curriculum standards for the teacher-participants. The larger professional development program persisted over the course of a school year and engaged teachers in collaborative, active learning opportunities (Desimone & Garet, 2015). In turn, the PD program sought to increase teacher learning and support them to implement discussions in their classrooms. Such professional development that aims to support teachers be responsive to students’ ideas during lateral reading instruction has not yet been explored. Therefore, the professional development sessions in this study were what Borko (2004) calls “Stage 1 PD” where research activities take place at a single site to evaluate a PD program.

The Present Study

The present study explored how teachers learned to navigate students' use of personal resources as they evaluate online sources in the context of preparing to teach *digital civic inquiries*. Digital civic inquiries are four-lesson scaffolded investigations into civic issues in which students 1) build knowledge and assess their initial perspective on a policy question (e.g., Is further restricting gun ownership a valid response to concerns about public safety?), 2) learn to evaluate online information on the topic and conduct research to locate credible sources, 3) read sources to locate relevant arguments and evidence, and 4) engage in deliberation and plan to take action with classmates on the policy question. Students' personal resources play an important role in these digital civic inquiries as they guide students' reasoning, deliberations, and plans to take action on an issue. As depicted in Figure 8, there are some lessons—specifically Lessons 1 and 4—in which students' values, beliefs, and personal experiences can take center stage in driving students' reasoning about an issue. However, these personal resources may need to be bracketed when students are evaluating and close reading sources (Lessons 2 and 3 in a digital civic inquiry). By collecting details about a source's expertise and trustworthiness through lateral reading, students can start to judge whether a source is *credible*, rather than whether the source mirrors their views or life experiences. If students do not learn to bracket their personal resources while they evaluate sources, they are more likely to only accept sources that affirm their worldviews and reject sources that challenge them. The intention of the professional development described below, then, is not for teachers to shut down students' personal resources, but to help them consider *when* they are most appropriate to employ.

Figure 8

Reliable Resources in Lesson 2 within a Digital Civic Inquiry



Focusing on leading discussions in Lesson 2 above, this study explored how teachers can prepare to both affirm students' personal resources and help them consider facets of source credibility. Through analysis of a practice-based professional development program, I asked:

1. How do teachers identify and use opportunities to affirm students' personal resources and push them to consider questions of source credibility while they engage and discuss representations of teaching practice?
2. What professional development design considerations support teachers to identify and use opportunities to balance students' personal resources and evidence from lateral reading?

Methods

In this study, I used design-based research methodologies (Barab & Squire, 2004; Cobb et al., 2003; Shavelson et al., 2003) to develop and iterate a professional development workshop on navigating students' personal resources during discussions about digital source credibility. Design-based research allowed me to collaborate with teachers and members of the professional development team to develop, evaluate, and revise design considerations that support teacher learning (Barab & Squire, 2004; Cobb et al., 2003).

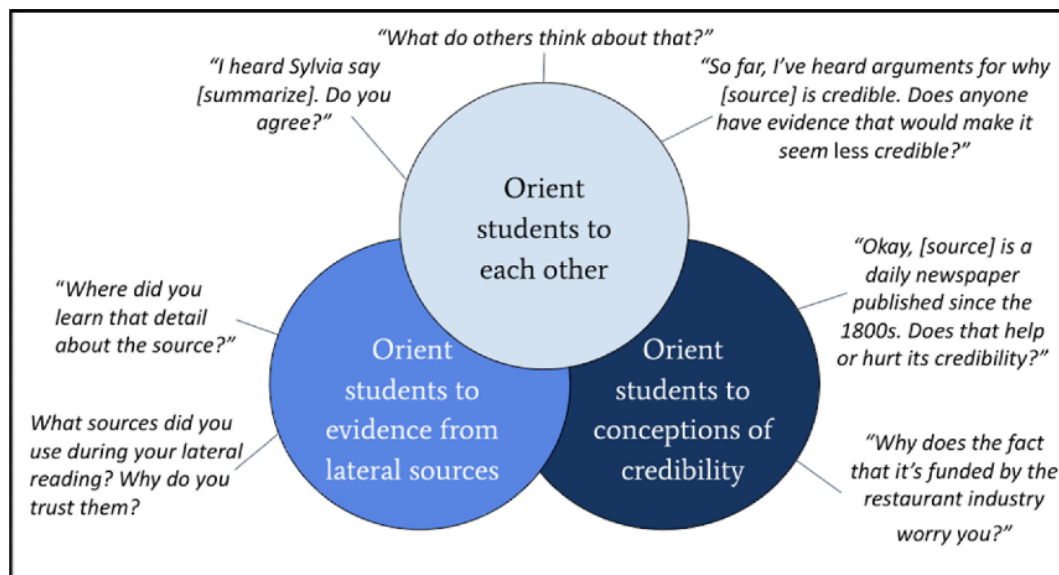
Data for this study were collected through Project Digital Civic Inquiry (Project DCI), a collaboration between the University of Maryland, the Close Up Foundation, and the Office of the State Superintendent of Education (OSSE) in Washington, D.C. Project DCI helped prepare teachers to teach all components of a digital civic inquiry. A summary of the full professional development program can be found in Appendix A with the workshop of focus in this study in bold. This study focused on a workshop conducted during week-long professional development institutes in the summers of 2024 and 2025.

I chose to rely on practice-based professional development (PBPD) principles for this study as they provided a framework to support teachers to take on an ambitious practice. PBPD principles guided opportunities for teachers to analyze representations that show how other teachers have responded to students' personal resources and to reflect on whether students' personal resources were sufficient evidence for their evaluation of a source. Further, teachers could explore the opportunities and challenges of facilitating this kind of discussion through rehearsals with their peers. For these reasons, this research probed how PBPD principles supported teachers to develop their practice in facilitating lateral reading discussions.

Before the focal workshop during both summer institutes, teachers analyzed and rehearsed how to facilitate discussions after lateral reading. Teachers practiced applying a framework (see in Figure 9; McGrew, 2025) that focused on three moves teachers can make during discussions after lateral reading: orienting students to evidence from lateral reading (by asking students to report details they learned about a source from external, credible sources); orienting students to conceptions of credibility (by probing whether characteristics of a source added to or detracted from its credibility); and orienting students to each other (by prompting students to build on each other’s ideas). Teachers decomposed each of these discussion moves and had the opportunity to practice them with peers.

Figure 9

Moves for Facilitating a Digital Source Credibility Discussion



From McGrew (2025)

The focal workshop in this study also relied on this framework but was designed to support teachers lead discussions about source credibility *specifically when students raise personal resources*. To prepare each iteration of the workshop (see Table 8), I collaborated with teachers

and other members of the professional development team to draft and revise procedures to promote teacher learning. During each iteration, I was a facilitator and participant-observer, documenting teacher learning through audio recordings and analytic memos. Below, I explain the context, participants, and procedures for each iteration and the interim and retrospective analyses conducted during the study.

Table 8

Iterations of Focal Professional Development Workshop

Iteration	Purpose	Data Collected
Iteration 1: Workshop during 2024 Project DCI Summer Institute	Reintroduce framework for facilitating a digital source credibility discussion (McGrew, 2025) to teachers with an additional discussion move to affirm students' personal resources; Observe and analyze teacher learning as they analyze and apply the framework to representations of teaching practice; Explore if and how teachers use the framework in a rehearsal of a discussion	Audio recordings of teacher small group and full group discussions
Iteration 2: Workshop during 2025 Project DCI Summer Institute	Analyze teacher learning with a new iteration of the workshop; Explore if and how teachers use tools from the workshop in a rehearsal of a discussion	

Iteration 1

Context and Participants

The first iteration took place during the Project DCI Summer Institute with 15 middle and high school civics teachers (Cohort 1) in Washington, DC in July 2024. Teachers applied for the PD program, which began with a week-long summer institute. Six teachers identified as male, eight as female, and one as non-binary. Six identified as Black/African American, four as White, one as Latino/a, one as Pakistani/South Asian, and three as mixed race. They averaged 10 years of teaching experience, with a range from 1 to 18 years. All teachers taught in traditional public or

public charter schools. They represented 13 schools in total. Table 9 provides details about each teacher.

Table 9

Participants in 2024 Project DCI Summer Institute

<u>Teacher*</u>	Race	Years Teaching
Alejandro	Black/African American, Latino, White	15
Alyssa	White	9
Bryan	White	3
Cassie	Black/African American	unspecified
Carlos	Latino	11
David	Black	10
Debra	Black/African American, White	4
Faith	Black/African American	10
Nia	Black/African American	12
Scott	Black/African American	10
Selah	Black/African American	14
Taylor	White	11
Theresa	Black/African American, American Indian/Alaskan Native	15
Tyler	White	1
Vrinda	Pakistani/South Asian	18

**All names are pseudonyms.*

Procedure and Data Sources

The workshop took place on Day 3 of the summer institute. Using practice-based teacher education pedagogies and the framework from Figure 9 (McDonald et al., 2013; McGrew, 2025), the workshop had three primary goals. Teachers worked to:

1. Identify different kinds of student reasoning in source evaluation discussions (i.e., reasoning about lateral reading vs. reasoning with personal resources).
2. Practice/plan moves to affirm students' personal resources in discussions; and
3. Practice/plan moves to orient students to reason about source credibility through lateral reading.

I first asked teachers to consider when students might be most likely to use their personal experiences and background knowledge during a digital civic inquiry and when they would elicit these contributions from students. After a brief discussion, I narrowed the focus to the role personal resources can play in the lesson on evaluating source credibility. I shared a representation of a classroom discussion about a digital source in which students used their personal experiences as evidence to assess its credibility (see Figure 10). Before they had time to research the source (*ProPublica*), the students in this representation doubted the source's credibility because their life experiences were in conflict with the headline of the post. With this representation used as an introduction, I explained the concept of directionally-motivated reasoning (Kunda, 1990) and how students might rely on personal resources when they evaluate sources to confirm their prior beliefs.

Figure 10

Representation of Teaching Practice in Workshop

Classroom Example 1



ProPublica

- Organization dedicated to investigative journalism
- Partners with a variety of news organizations
- Winner of Pulitzer Prizes and Peabody Awards

Classroom Example 1

Student 1: I don't think that's true—that doesn't happen here.

Teacher: You've never seen that happen here.

Student 1: When you get caught smoking vape, you like get in trouble with your parents or you are sent to admin and they like help you. You don't get fined.

After I introduced directionally-motivated reasoning, we returned to the representation in Figure 10 to decompose ways that teachers could respond to students. As shown in Figure 11, I revealed how the teacher responded to students in the focal representation. We discussed how she acknowledged their personal experiences, oriented them to each other, and oriented them to research through lateral reading. I then advocated for teachers to respond to students' personal resources in source evaluation discussions in ways that both affirm their personal resources *and* orient students toward each other, toward lateral reading, or toward credibility.

Figure 11

Representation of Teaching Practice in Workshop, Continued

How does the teacher respond?

Student 1: I don't think that's true—that doesn't happen here.

Teacher: You've never seen that happen here.

Student 1: When you get caught smoking vape, you like get in trouble with your parents or you are sent to admin and they like help you. You don't get fined.

Teacher: Okay, so you are suspicious of this. Because this contradicts your experience. So what are you going to do about that?

Student 2: Research?

Student 1: Nah not research. It's not true.

Teacher: You need to do research. Because this is true for all of us—this is your experience right here, but it might not be true for everybody everywhere.

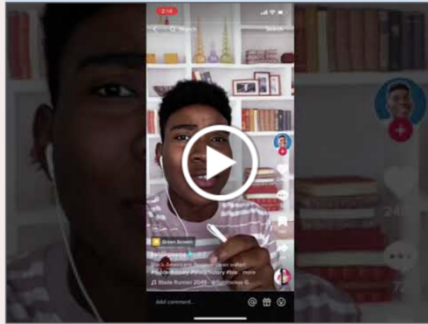
- 1) Acknowledges students' personal experiences.
- 2) Orients students to each other/evidence from lateral sources

We then decomposed possible ways to respond to students' personal resources during class discussions about source credibility. We returned to the framework for facilitating discussions about digital source credibility (depicted in Figure 9) that was introduced earlier on Day 3 of the Summer Institute. We talked about how we could apply these facilitation moves and decomposed an additional move of affirming students' personal resources during discussions about source credibility (e.g., "Thanks for sharing that. I hear you saying that you had the same experience as this source"). Next, teachers worked in small groups to analyze two transcripts of classroom discussions about digital sources where students relied on evidence from both lateral reading and their personal resources. The teachers were asked to propose different ways to respond to the students in each representation. For example, teachers analyzed a representation of a conversation between students and their teacher about a TikTok post on contaminated water in Baltimore (see Figure 12).

Figure 12

Representation of a Source Credibility Discussion about Kahlil Greene

Classroom Example 2

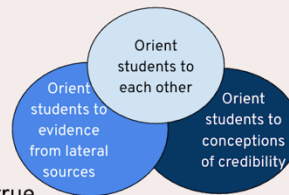


Kahlil Greene

- Calls himself the “Gen Z Historian” with a large following on TikTok
- Majored in history at Yale University and graduated in 2021
- Works full time as a speaker and influencer
- Wrote an op-ed in the [Washington Post](#) about university admissions at Yale

investigate - - - - - discuss - - - - - act

How could the teacher respond?



Teacher: Okay, we need to figure out if what he said is true.

Student 1: Well in Flint, Michigan and Jackson things are definitely happening. I don't know about Baltimore. My mom works in Baltimore County and I feel like if this was happening in Baltimore, I would have heard about it.

Student 2: From personal experience, it's true! That is mostly happening in people of color communities. My school had to go through it. My school had to send water to Flint. I have friends in Jackson, Mississippi. They actually had to go through this. They literally didn't have water. It's just a fact. And there are other cities too!

investigate - - - - - discuss - - - - - act

Finally, the teachers planned how they could lead a discussion about a different source, either *Time Magazine* or a website from the gun industry trade organization National Shooting Sports Foundation. One teacher rehearsed leading the discussion with the non-rehearsing teachers (NRTs) serving as “students” for the rehearsing teacher (RT; Lampert et al., 2013). To make sure the RT had opportunities to respond to comments where the “students” shared personal resources, we specifically assigned some NRTs to share personal experiences or background knowledge in the discussion. After the rehearsal, I facilitated a debrief about the rehearsal process. Audio recordings from both full group and small groups discussions during the

workshop were collected for data analysis. Small audio recorders spread out throughout the room allowed me to capture each small group's dialogue during the workshop.

Interim Analyses

I transcribed these recordings and conducted initial analyses before Iteration 2 by inductively coding teacher talk and writing memos to synthesize my analysis. I inductively coded the data for evidence of teachers' opportunities to practice two kinds of discussion moves during the workshop: opportunities to affirm students' personal resources and opportunities to push students to consider questions of source credibility. Then, I wrote analytic memos to identify themes in the opportunities provided for teachers to meet the objectives of the workshop. Initial analyses suggested that the workshop created nascent opportunities for teachers to practice the target discussion moves as they analyzed representations of source credibility discussions. However, the teacher that led the rehearsal in Iteration 1 did not always practice these moves and was not sufficiently supported by the facilitators to enact them during the rehearsal. The rehearsing teacher took up and affirmed the NRTs' personal resources (in this case, stories about their experiences with gun violence) but did not orient students to evaluating a source at all during the rehearsal. Therefore, the workshop was not fully successful in supporting teachers to practice how to notice and respond to students' personal resources in ways that *both* affirm these contributions *and* orient students toward lateral reading or toward source credibility. These interim analyses led to revisions in Iteration 2, described in detail in the Findings.

Iteration 2

Context and Participants

The second iteration of this study occurred with a new cohort of 18 social studies teachers who attended the 5-day Project DCI Summer Institute in August 2025. The teachers

planned to teach digital civic inquiries during the 2025-2026 school year within 8th grade action civics, a new course aligned with new district social studies standards in Washington, DC.

Nine teachers identified as Black/African American, three as White, two as Latino/a, two as mixed race, and two teachers did not report their race. Ten teachers identified as female and eight as male. All teachers taught in traditional public or public charter schools. They represented 16 schools in total and averaged 10 years of experience, with a range from 1 to 30 years. Table 10 provides details about each teacher.

Table 10

Participants in 2025 Project DCI Summer Institute

<u>Teacher*</u>	Race	Years Teaching
Amal	Unspecified	7
Beatrice	White	7
Beth	White	21
Brandon	Black/African American	2
Carter	Black/African American	3
Christina	Black/African American	6
Jamal	Black/African American	1
Juan	Latino	24
Lindsey	Unspecified	30
Luis	Latino	5
Maya	Black/African American	12
Olivia	Black/African American	5
Owen	White	4
Rohan	Black/African American	9
Sierra	American Indian/Alaskan Native, Black/African American, White	10
Sofia	Black/African American, Latina, White	24.5
Tara	Black/African American	3
William	Black/African American	12

**All names are pseudonyms.*

Professional Development Procedure

Iteration 2 followed the same model as the first iteration with opportunities for teachers to decompose and analyze representations of the practice of affirming students' personal resources and leading a discussion after lateral reading. Like Iteration 1, the second workshop provided opportunities for teachers to rehearse a discussion after lateral reading and debrief their experiences in the rehearsal. However, key revisions were made to the PD workshop based on insights from Iteration 1, including modifying the discussion questions, adding an additional representation of teaching practice, and revising the representations to more closely align with the DCI curriculum. In particular, I revised the procedures for decomposing the teaching practices to help teachers understand the goals of a source credibility discussion within the context of the full digital civic inquiry and how to communicate those goals to students. These revisions are described in depth in the Findings. I audio recorded small group discussions and the rehearsal during the workshop to capture as much teacher dialogue as possible.

Retrospective Analysis

I conducted retrospective analyses after the two iterations of the workshop were complete. First, I divided the transcripts into the segments that focused on a) decomposition of the teaching practices involved in leading a source credibility discussion, b) representations of source credibility discussions, and c) rehearsals of source credibility discussions. Then, I started to analyze transcripts of the teachers' recorded discourse during the rehearsals. Working in Nvivo, I first qualitatively coded each of the rehearsing teacher's talk turns (defined as one complete segment of teacher speech) using three main codes to describe the focus on their facilitation moves: *content* (of the digital civic inquiry; e.g., gun control), *sources*, and *personal resources*. I also recorded whether the rehearsing teacher shifted within each talk turn between

different foci or did not shift their focus at all. Table 11 includes the full list of codes used to analyze the transcripts of the rehearsals. For example, in Iteration 1, the rehearsing teacher, Faith, first focused on validating the non-rehearsing teachers' *personal resources* by saying their life experiences were valid before she shifted to focus on the *content* of the inquiry: "So what I want you to kind of think is, hey, what can we do to restrict this, this issue [gun control]?" Therefore, this talk turn was coded as "*personal resources*" and "*shift to content*." I used these codes to analyze the RTs' talk turns in the rehearsals in Iteration 1 and Iteration 2. Talk turns could be coded with multiple subcodes if the rehearsing teacher shifted their focus to multiple elements of the inquiry (e.g., the RT focused on sources, then shifted to content, and then shifted to personal resources). A second coder coded 19 talk turns across the two rehearsals (21% of total talk turns). Interrater agreement was 95% (Cohen's *Kappa* = 96%).

Table 11

Codebook for Analyzing Rehearsing Teacher Talk during Rehearsals

Main Codes	Content	Sources	Personal Resources
Subcodes	Shift to Source	Shift to Content	Shift to Source
	Shift to Personal Resources	Shift to Personal Resources	Shift to Content
	No Shift	No Shift	No Shift

Next, I moved to coding the teachers' analysis of the representations of source credibility discussions. While I recorded both small group and large group discussions, I focused on the transcripts of small group discussions because they captured a diversity of voices and did not include my facilitation. There were four small groups in each workshop. The small groups had a discussion about two representations in Iteration 1 and three representations in Iteration 2. Thus,

there were 20 small group discussions total: 8 discussions in Iteration 1 and 12 discussions in Iteration 2. I began analysis by qualitatively coding each talk turn in these discussions with the codebook above in Table 11. However, these codes were not specific enough to accurately capture how the teachers were responding to students in representations. Therefore, I started a new codebook with the specific discussion moves taught to teachers during the workshop: *affirm personal resources*, *orient students to source credibility*, *orient students to each other*, and *orient students to lateral reading*. Through multiple passes through the data, I iteratively revised the codes to describe the full scope of discussion moves the teachers suggested. The final codebook included 8 codes, summarized in Table 12. I ultimately eliminated the *orient students to each other* code because it was not always clear in teachers' dialogue whether they were using this move. Then, I coded the talk turns in the small group discussions with these final codes. There were 132 talk turns in small group discussions in Iteration 1 and 189 talk turns in Iteration 2. I did not code any contributions from facilitators, teacher talk turns that had an unclear focus (e.g., "Yes, that's a good question"), or talk turns in which teachers did not suggest responses to students. All other talk turns could be coded with any combination of the codes. Finally, I tallied the frequency and percentage of each code in each iteration and compared the percentages to understand how, if at all, the teachers' discussion moves changed across the two iterations. A second coder coded 70 talk turns from across the two iterations (22% of the data); interrater agreement was 86% (Cohen's Kappa = .81).

Table 12

Codebook for Analyzing Teacher Talk during their Analysis of Representations

Discussion Moves

Affirm personal resources	A teacher suggests or practices a move to validate or affirm a student's personal experience or background knowledge shared in the representation.
Critique personal resources	A teacher suggests or practices a move to challenge or critique a student's personal experience or background knowledge shared in the representation.
Ignore personal resources	A teacher suggests ignoring a student's personal experience or background knowledge shared in the representation.
Revoice personal resources	A teacher suggests or practices revoicing a student's personal experience or background knowledge shared in the representation.
Probe for additional personal resources	A teacher suggests or practices asking more questions about a student's personal experience or background knowledge shared in the representation.
Orient to source credibility	A teacher suggests or practices a move to orient students to reason about the credibility of a source <i>or</i> to validate a student's contribution focused on source credibility.
Orient to lateral reading	A teacher suggests or practices a move to orient students to read laterally <i>or</i> to validate a student's contribution focused on lateral reading.
Orient to further research	A teacher suggests or practices a move to encourage students to conduct more research; the teacher is not clear whether the students should investigate the issue or the source.

Finally, I wrote memos to describe the design of the workshop and the changes made to promote teacher learning. I wrote a memo for each segment focused on decomposing, representing, or rehearsing the teaching practices. In these memos, I specifically analyzed the discourse of the facilitators in each segment. Each memo responded to four questions:

1. How was this section of the workshop designed in Iteration 1? How was this section of the workshop designed in Iteration 2?
2. In what ways did teachers identify opportunities and plan to engage students' personal resources and lateral reading practice in Iteration 1/Iteration 2?
3. What revisions were made to the design from Iteration 1 to Iteration 2?

4. Why were those revisions made?

After writing answers to these questions, I compared these analytic memos to my analyses from coding to answer the research questions. To develop the findings reported below, I used my coding to compare how the teachers engaged with representations of teaching practice across the two iterations. I found two major themes from the coding and used the analytic memos to identify design considerations that were related to those themes.

Findings

In the sections below, I integrate findings from Research Question 1 and Research Question 2 to describe both how the teachers engaged in the representations of teaching practice (RQ1) and the design considerations that supported this learning (RQ2). First, I focus on how we designed and revised the workshop to support teachers to both affirm students' personal resources and push students to reason about sources. In their analyses of representations of teaching practice, teachers in both iterations suggested a variety of facilitation moves, including but not limited to the focal moves we taught in the workshop. These findings raise questions explored in the Discussion about how to facilitate source credibility discussions that validate student voices and promote effective reasoning across a digital civic inquiry.

Second, I focus on a key design consideration that supported teachers to achieve the workshop's goals: The professional development workshop better supported teachers when we thoughtfully decomposed the *source question* and the *central question*, a revision made for Iteration 2. To illustrate, I compare how the rehearsing teachers in Iteration 1 and Iteration 2 practiced leading a source credibility discussion that affirmed students' personal resources and focused on evidence from lateral reading.

Noticing and Responding to Students' Reasoning

The central goal of the workshop was to support teachers to notice and respond to students' use of evidence during source credibility discussions. In these discussions, teachers should prompt and encourage students to share evidence about the credibility of a source that they learned from lateral reading. Alternatively, and especially when the topic of a digital source is relevant for them, students may also share evidence from their background knowledge or personal experiences that leads them to accept or reject a source as credible. While this kind of evidence is essential for civic discourse about controversial issues, evidence from personal resources may make students susceptible to directionally-motivated reasoning. Therefore, the workshop sought to prepare teachers to briefly validate students' personal resources and orient students to details about a source collected through lateral reading to assess a source's credibility.

To achieve this goal, the professional development team decomposed four teacher facilitation moves: affirm students' personal resources, orient students to lateral reading, orient students to conceptions of credibility, and orient students to each other. Then, we analyzed representations of teaching practice in the form of transcripts of classroom discussions. In each representation, the "Teacher" asked students to evaluate or make a judgment about the credibility of a source. After the teacher's question, two or three students voiced their ideas. The teachers in the professional development workshop were tasked with suggesting ways to respond to the students in the transcripts. During their discussions, teachers in both iterations practiced affirming students' personal resources and orienting them to reason about sources, but they also practiced a variety of other facilitation moves.

Iteration 1

Engaging Students’ Personal Resources. In Iteration 1, teachers analyzed two representations of teaching practice – both of which were drawn from the facilitators’ classroom observations. As they analyzed these representations, the teachers were much more likely to *critique* the personal resources that students shared than *affirm* them. Teachers critiqued the students’ discourse in 28.7% of their talk turns while only affirming students’ personal resources in 5.9% of talk turns.

While the professional development team decomposed and encouraged teachers to affirm students’ contributions, only a few teachers suggested such a move. For instance, in response to a discussion about TikToker Kahlil Greene (see Figure 12), Faith said she would want to validate students’ personal experiences with a response like, “You guys have the prior knowledge with some of these things that you heard about Flint, or even in your own communities.” However, no teacher practiced the target facilitation move of the workshop – affirm students’ personal resources *and* orient them to reason about sources. Based on insight from her groupmate (Scott), Selah came the closest when she said:

I like what you said, Scott, about like, asking for more options and saying like, “Everybody in this room has different lived experiences.” And pointing that out and saying– pushing the kids to wonder themselves– “Where do we go from here with all of these different people and all of their experiences?”

While this response from Selah affirmed students’ lived experiences and might push students to think about their next steps, “where do we go from here” did not explicitly orient students to evaluate the source.

While we had not encouraged them to do so, critiquing students’ personal resources was the most popular facilitation move in Iteration 1. Consider how Scott was inclined to critique

students who used their personal experiences and background knowledge to evaluate Kahlil Greene. In this representation, “Student 1” rejects Greene’s claim that *e.Coli* was found in the water in Baltimore, MD because his mom (who works in the Baltimore suburbs) would have told him. “Student 2” believes Greene’s claim because she has knowledge about and experiences with environmental racism in multiple U.S. cities. Scott practiced a response to these students by critiquing their assumptions:

I would say “Is your experience, everybody's experience? You know, just because you haven't heard of it doesn't mean that somebody else may have.” Or vice versa for the other kid too. “Because you've witnessed it, you think everybody in the area has witnessed it?” So, it just makes them think about other people's perspectives and whether or not they're valid in it.

In this instance, Scott used probing questions to critique the students’ contributions and highlight their potential limitations rather than affirming that the student was applying their background knowledge to the source credibility discussion.

Other teachers frequently took this approach as well. In a different small group discussion of the Kahlil Greene representation, Nia was quick to point out that Student 1’s mom works in the suburbs and might not know about the city. Sam suggested asking, “Yeah, does [your mom] take bottled water to work?” Alyssa and Taylor went one step further to discuss how they might teach students about directionally-motivated reasoning as a means to critique their thinking:

Alyssa: I think like this would be an opportunity to acknowledge the confirmation bias – of like we have two different personal opinions that are saying the same thing or saying different things. Right? So, like we have to be careful both of student 2's confirmation bias and student 1's like– what's the opposite of confirmation? Unconfirmation?

Taylor: I'm going to try to use this “motivated reasoning.” She said they both have motivated reasoning.

Alyssa: Yes, motivated reasoning.

Taylor: You both have had these lived experiences, you both have this outside knowledge, and they're biasing you in the opposite way, so...

In this exchange, Alyssa and Taylor discussed how they could critique each student’s “bias” in their initial judgments of Greene by using terms we had discussed earlier in the workshop, like confirmation bias and motivated reasoning.

The teachers also practiced responses that combined a critique of students’ personal resources with another facilitation move. For example, in 9% of total talk turns and 31% of talk turns in which teachers critiqued students’ discourse, the teachers critiqued a student’s personal resources before orienting them to reason about the source. For example, as she analyzed the Kahlil Greene representation, Alyssa rehearsed a *critique-orient to source* move: “Yeah, outside of our own personal opinions and whether or not they match up with what he's saying. Can we trust what he is saying?” In a different small group, Scott practiced a similar move: “Just because you haven't heard about it, does that mean it's untrue?...Just because a kid hasn't heard about it, it doesn't mean it's true for everybody. We can go back to the source with that. Like I can say, ‘Is this guy credible? Like is what he's saying be trusted?’” In these moves, the teachers rehearsed how they would challenge the students to think beyond their own experiences and focus on whether Greene is a credible source.

Taylor was the only teacher to combine both a *critique* move and an *affirm* move into a single response to students in Iteration 1. They practiced saying, “That's not untrue, and I think you can acknowledge they both mentioned Flint and Jackson, so it's like, ‘Hey, yeah, we know

some things are happening in the U.S., but how do you know in this particular case, then?”

Taylor’s proposed response here validated the truth in Student 2’s contribution about water crises in Flint, MI and Jackson, MS, but still challenged the students to question whether they can assume the same is true in Baltimore.

Orienting Students to Evaluate Sources. A goal of the workshop was for teachers to practice orienting students to reason about sources. Most frequently, in about 24% of talk turns, the teachers chose to orient students to conceptions of credibility, or to ask students whether a detail about a source made it more or less credible. For instance, as they analyzed the representation about *The Washington Examiner* (see Figure 13), Alyssa asked, “I don't know, is the fact that it's conservative— does that mean it's not credible?” and Nia suggested the question, “Like what does that word “conservative”— What does that mean about being credible? Does it have any effect?” Less often, the teachers rehearsed how they could orient students to the details they learned from lateral reading (4% of talk turns). As they analyzed the Kahlil Greene representation, David recognized a moment to encourage students to “do the lateral research” and Bryan suggested “Maybe have them do a little lateral reading, you know.” During the analysis of the *Washington Examiner* representation, only one teacher, Taylor, oriented students to think about their lateral reading. When they did so, Taylor combined discussion moves by orienting students to lateral reading and then to their conceptions of credibility: “I would name, like, ‘Hey, you did your lateral reading, that's great! Like, you didn't just go off of gut instinct, like, you found this information about them, but does that make them less credible?’” In this response, Taylor highlighted that one student had successfully read laterally and then probed them to connect those details to their conceptions of credibility.

Figure 13

Representation of a Source Credibility Discussion about The Washington Examiner

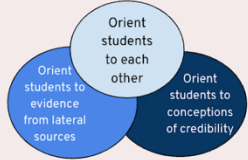
Classroom Example 3

Teacher: Okay, what did we decide about this source?

Student 1: I really wouldn't trust this site. You can just tell it's super conservative by looking at it.

Student 2: Yeah, I went to their Wikipedia page and it is a conservative newspaper. They focus on national politics now, but they started as a bunch of local D.C. papers.

investigate - - - - - discuss - - - - - act



Finally, in about 13% of their responses, the teachers oriented students to engage in “more research.” However, these responses encouraged research about the central topic of the representations, rather than the source the students were evaluating. For instance, as she analyzed the Kahlil Greene representation, Cassie was inclined to let students research more about Baltimore, stating, “And that's exactly when you have to do some other type of research because we can speak all day in different areas.” In other cases, the teachers oriented students to learn more, but it was not clear about whom or what they should research. Nia rehearsed saying, “Well class, it seems like we have two competing arguments. What can we do to find out what's happening?” These ambiguous calls to engage in “more research” were the third most frequent kind of response, after critiques of personal resources and moves to orient students to source credibility.

Iteration 2

My interim analyses pushed the professional development team to revise the workshop in ways that might support more teachers to affirm (instead of critique) students’ personal resources and orient them to reason about sources. With these goals in mind, we made three revisions to

the section of the workshop focused on analyzing representations of teaching practice for Iteration 2.

First, before each representation, we asked an additional question to guide the teachers' analysis. Instead of jumping into discussions about how to respond to students, the teachers in Iteration 2 first discussed, "What kind of evidence are the students using?" This question was added to help the teachers focus first on the kinds of resources (i.e., personal resources, evidence from lateral reading, or some other kind of evidence) that students were sharing before teachers reasoned about and practiced how they wanted to respond. Second, we revised the representations to focus on sources and issues included in the DCI curriculum (e.g., gun control and protest rights). Representations in Iteration 1 were drawn from a previous classroom study (Reynolds & McGrew, 2025) and were divorced from the controversial issues in the digital civic inquiries. For example, the Kahlil Greene representation discussed above focused on clean water and environmental racism, but neither of those issues nor Kahlil Greene were part of the DCI curriculum. Therefore, the research team rewrote the representations to be grounded in the sources and issues that the teachers would teach in the upcoming school year. Third and finally, Iteration 2 included an additional representation (for a total of three) to provide teachers with more opportunities to analyze examples of source credibility discussions.

Engaging Students' Personal Resources. Like teachers in the first workshop, teachers in Iteration 2 saw opportunities to critique students' personal resources, but they chose to practice this move less frequently. Instead, teachers practiced affirming students' personal resources (11.1% of talk turns) almost as often as they practiced critiquing them (13.0% of talk turns). Table 13 shows examples of how teachers practiced these moves in Iteration 2. In the first row, Jamal and Beatrice voiced the kind of *affirm* moves that we were trying to teach: both

teachers validated students' life experiences and asked them to dig deeper to "confirm our suspicions" or "answer our question." The second row of Table 13 provides examples of teachers who continued to find opportunities to critique the knowledge and experiences that students shared. Beatrice asked, "Are we experts on this? Do we know what gun ownership [is]? Do we even know what a background check is?" or Carter asked, "Does that mean that we shouldn't read this article because of what you have heard before?" as responses to students' contributions. While these kinds of critiques were still common, teachers used this move less often than they did in Iteration 1 (13% of talk turns compared to 29% of talk turns).

Table 13

Teachers' Moves to Affirm or Critique Students' Personal Resources

Moves to affirm students' personal resources	Jamal: I feel like I would say, "While that may be your experience with your dad, and that may very well be true, we still want to look at the credibility of the source and do some lateral reading. And you might feel like guns are sold on the black market, but we need to look further into this to confirm your suspicions."	Beatrice: I think I would say something along the lines of like, "That's so interesting. We just have two personal experiences, and we know that related experiences are important when we deal with issues like this. However, they are two totally different points of view, and we can't answer our question yet."
Moves to critique students' personal resources	Beatrice: Yeah, because they might say, oh, we can hear everyone's personal experiences and then it's like, "Are we experts on this? Do we know what gun ownership [is]? Do we even know what a background check is?" Yeah.	Carter: It sounds like you agree or disagree with what the article is saying based on what you've heard from your dad. Does that mean that we shouldn't read this article because of what you have heard before? Or is there something else that we need to know about the article before we make that decision?

Further, the teachers that affirmed students' personal resources were much more likely than those in Iteration 1 to pair an *affirm* move with an effort to orient students to reason about the source. In 50% of talk turns in which teachers affirmed students' personal contributions, they

also oriented students to the source. For example, as Carter analyzed a representation about WUSA9, the local CBS affiliate in Washington, DC (see Figure 14 below), he validated students' ideas, oriented them to conceptions of source credibility, and oriented them to the evidence they collected from lateral reading:

For Student 2, it's like, "Okay, so you're listing things that are true about WUSA. But what does this make us believe about the source? Does this make it more credible, less credible? How do we use that information? And then, yeah, [Student] 1 or [Student] 3, it's, like, "Okay, thank you for sharing. Let's laterally read about what it is."

In this response, Carter tried to affirm each student in the representation by either validating that what they said was true (Student 2) or thanking them for their contribution (Students 1 and 3). He also pushed Student 2 to think about what conclusions they might draw about WUSA9's credibility based on the clues they collected and pushed Students 1 and 3 to read laterally. In these ways, Carter used the kind of facilitation move that the workshop was designed to support. While teachers more frequently made these moves in Iteration 2, an *affirm-orient to source* response was only present in 5.6% of the teachers' talk turns. Some teachers tried *critique-orient to source* moves as well, but similarly, these kinds of responses were only found in 3.7% of talk turns in Iteration 2.

Figure 14

Representation of a Source Credibility Discussion about WUSA9

**What evidence are the students using?
How could the teacher respond?**

Teacher: What did we think about this source?

Student 1: Well, WUSA9 is a local channel. My mom and my grandma watch it.

Student 2: I found out that WUSA9 is a affiliate of CBS News, so they broadcast some of that news but also local news about Washington, DC.

Student 3: Protests are so loud. They happen near my friend's house all the time. There is no way there is a limit on how loud those protests can be.

investigate - - - - - discuss - - - - - act

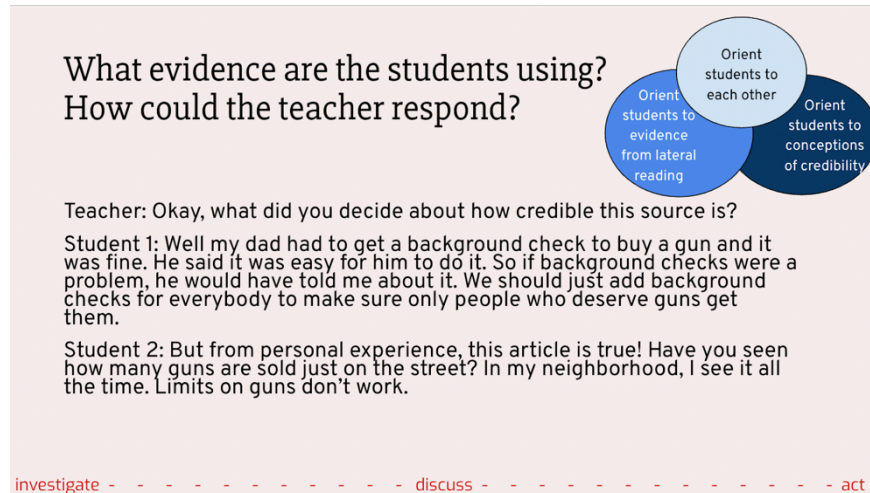
Orienting Students to Evaluate Sources. As they did in Iteration 1, the teachers in Iteration 2 most frequently voiced opportunities to orient students to think about the credibility of sources (just under 20% of talk turns). When discussing a representation focused on the National Shooting Sports Foundation, (NSSF; see Figure 15 below), for example, Maya suggested that she would ask questions about the likelihood that a gun trade organization would report accurate information:

So, I think when I look at those, like, credibility issues, in terms of how I think about my students, I would force them, let me not say force— I would move them, encourage them to think about, “Would this source have any reason to lie to us? Like, why would they not want to be truthful about it?”

By asking questions about whether NSSF has a reason to lie, Maya imagined how she could push her students to think about source credibility.

Figure 15

Representation of a Source Credibility Discussion about the National Shooting Sports Foundation



In a departure from Iteration 1, however, teachers in Iteration 2 more frequently oriented students to lateral reading. While they only used this move in about 4% of talk turns in Iteration 1, teachers oriented students to lateral reading in 13% of talk turns in Iteration 2. For example, Christina asked, “Okay, is there anything in your lateral reading that makes you disagree?” and Jamal suggested saying, “We still want to look at the credibility of the source and do some lateral reading.” In her small group, Tara thought about how she might respond to a student that rejected a source because it challenged their life experiences (see Figure 16). Tara shared:

Thinking of ways to make this as impartial as possible, I might even look at Student 1 and think, “Okay, well, can you laterally read and find reasons why this article isn't credible? Based, like, this is your personal opinion, which is fine, but practicing lateral reading, can you show me why this article isn't credible?”

Through this move to encourage students to read laterally, Tara hoped she would not “immediately negate their belief” but would motivate the student to “prove it to me that this [article] is not credible.” In Iteration 2, teachers like Tara noticed more opportunities to orient students to lateral reading.

Figure 16

Representation of a Source Credibility Discussion about Time Magazine

What evidence are the students using?
How could the teacher respond?

Teacher: Okay, what did we decide about this source?

Student 1: This article is obviously against gun control, and I disagree with that. It can't be credible.

Student 2: Yeah, well, I went to their Wikipedia page and *Time* is a big magazine. It's been around for a long time and has influence with people. It's owned by the guy from Salesforce.

investigate - - - - - discuss - - - - - act

Finally, the teachers in Iteration 2 oriented students to conduct more research in about 11% of talk turns. Just like in Iteration 1, the teachers made moves to orient students to learn more from external sources, but it was not always clear whether the teacher was instructing students to learn more about the source, its credibility, or about a central issue like gun control. For example, teachers considered asking students to research further with ideas like, “Maybe just even ask them to read into this” or “Yeah, I would just, I will try just to make them go into a deeper search and embody what they were just saying or thinking about the topic. How do you know?” An *orient to more research* discussion move was often used in response to personal resources to support the students to dig deeper beyond their subjective experiences. For example, as he analyzed the NSSF representation (see Figure 15), Carter oriented students to conduct more research and said, “You two disagree on this. Can we use this article or maybe another article to find out more information about the topic? You're just two people.” Luis used this same combination of moves to help students dive into questions about gun control, stating, “I don’t know. For student number 2, I would ask them if– I would ask them to do more research about, like, how having more guns on the streets can actually create more problems than solve

problems.” In each of these examples, the teachers oriented students to learn more outside of the personal resources they were bringing to the discussion. Yet, the probes to search for or read more information were focused on the content of the inquiry – the central question – rather than the credibility of the sources they were evaluating.

Table 14 offers a side-by-side comparison of the discussion moves that the teachers practiced in each Iteration. Teachers more frequently met the goals of the workshop in Iteration 2 – to identify and use opportunities to affirm students’ personal resources and push them to consider source credibility. Yet, these moves did not dominate their discourse. There were other discussion moves, such as critiquing personal resources and orienting students to more research, that were still popular choices among teachers.

Table 14

Distribution of Teacher Talk Turns during Discussions of Representations

	Iteration 1		Iteration 2	
Kind of Discussion Move	# of Talk Turns	% of Talk Turns	# of Talk Turns	% of Talk Turns
Discussion Moves Practiced in Teacher Talk Turns				
Affirm personal resources*	6	5.9%	18	11.1%
Critique personal resources	29	28.7%	21	13.0%
Probe for additional personal resources	5	5.0%	4	3.3%
Revoice personal resources	1	1.0%	0	0
Ignore personal resources	1	1.0%	3	1.9%
Orient students to source credibility*	24	23.8%	31	19.1%

Orient students to lateral reading*	4	4.0%	21	13.0%
Orient students to more research	13	12.9%	18	11.1%

*Discussion moves decomposed and encouraged by the research team

Decomposing the Source Question and the Central Question

In both iterations, the workshop focused on a unit from the DCI curriculum about the relationship between governments and individual rights. In 2024, the *central question* from this unit was “Is further restricting gun ownership a valid response to concerns about public safety?” In 2025, teachers considered sources related to this central question as well as sources pertaining to the question, “What limits, if any, should governments impose on the right to protest?” When students ultimately answer either central question during the school year, students’ personal resources, such as their opinions and experiences with gun ownership or protests, should inform their ideas about appropriate policies. However, before they can decide which sources to read about the central question, students also need to answer *the source question*: “Is this source credible enough for me to read to learn more about the issue?” Understanding the distinction between the two questions and their relationship to each other is an essential prerequisite to leading a discussion about source credibility within the DCIs and coaching students to use appropriate evidence to evaluate source credibility. Interim analyses revealed that Iteration 1 did not effectively prepare all teachers to understand the relationship between the central question and the source question. Below, I report on revisions made to the workshop after interim analyses that appeared to enhance teacher learning about the relationship between the source question and the central question.

Iteration 1

In Iteration 1, we decomposed the kinds of evidence that students need to use within DCIs by asking teachers when personal resources are appropriate evidence during a digital civic inquiry. Specifically, I started the workshop by asking teachers to turn and talk to a peer with the following instruction:

When do you think students are most likely to bring in their personal experiences and background knowledge? So, when are they most likely to bring those things out? And then when should we encourage and elicit those personal resources?...And then, when should we challenge students to acknowledge those things, but maybe table them or move beyond their personal resources?

In response, teachers discussed how they wanted to affirm students' relevant personal contributions. In one group, Tyler said, "we should encourage students to make those personal connections" and Scott said, "I feel like we should do it all the time." The group also recognized, however, that not all personal resources may be relevant or constructive to a discussion. Selah acknowledged that discussions about personal experience can "turn into not a healthy discussion" and Scott added, "You want to encourage it with places where they apply. They need to learn how to table it temporarily when it does not apply." The teachers agreed that they wanted to avoid discussions where students were arguing that "my lived experience is more real than yours," as Tyler described it. In groups like this one, the teachers recognized that while students' personal resources are essential to their learning about civic issues, there may be some personal connections that are not always relevant to the focus of a discussion.

Yet, this effort to decompose the evidence used in a DCI was not enough to help the teachers develop a mental map of the facilitation moves they need to make during a source evaluation discussion. At times during Iteration 1, teachers lost the thread about what question

(the central question or the source question) they were trying to guide students to consider. As the teachers discussed how they might respond to students who were assessing the credibility of TikToker Kahlil Greene (see Figure 12), some teachers wanted to jump into learning more about the topic (water quality in Baltimore). Selah wanted to ask students for more experiences with environmental injustices in their lives. Bryan talked about how he might suggest that his students “maybe go look up Baltimore. You can look that up, you go through something like that” and Faith wanted to allow students to “kind of dig a little deeper into Baltimore's similar situation. And then they can make those connections.” In each of these examples, the teachers’ proposed responses may have supported students to learn more about a civic issue but did not orient students to discuss how credible Greene was as a source.

At the end of the first workshop, Faith rehearsed a discussion with all of the non-rehearsing teachers (NRTs) acting like students. The professional development team intended for the rehearsing teacher (RT) to focus the rehearsal on evaluating the credibility of a *Time Magazine* article about gun control. Instead of focusing her discussion on the credibility of *Time*, however, Faith led a discussion about the central question, “Is further restricting gun ownership a valid response to concerns about public safety?” Consider the following instructions that Faith provided the NRTs at the beginning of her rehearsal:

So, we are going to conduct a really quick, brief lateral research for about two minutes.

When I say go and not before, your task is to conduct that brief lateral read about the following article below entitled “A Criminologist's Case Against Gun Control.” What you need to do, here are your clearance instructions. Here you have three steps. You need to identify what makes this an informative or misleading article. So, provide two examples. And for number two. What data, number, stats makes this article believable or

valid? And then last but not least, is this article substantial enough for the evidence to support restricting gun rights? Any clarifying questions? Give me a “yes.”

These instructions included lateral “research” (the process that would help students make an assessment of the source’s credibility). However, Faith’s directions also led the NRTs to question whether they should complete a more traditional close reading (a process that would help them answer the central question) by pulling examples of “informative” text, data, or stats. The NRTs asked, “So do we need to read the article or not?” and “So then do I *have* to do lateral reading?” Faith tried to clarify her instructions in response:

Right, sorry, so the way I kind of structured this lesson is kind of like I want students to read it but they don't have to read the entire article. Does that make sense?...So you're basically, in a nutshell, you're stopping and jotting – quick stop and jots. Does that make more sense? Does that help you out?

“Quick stop and jots” of the text of the article would be an appropriate instruction during a traditional close reading assignment, but lateral reading requires the NRTs to share details retrieved about the source on websites *outside of the text itself*.

Before the NRTs could follow her instructions, Faith asked, “Any other clarifying questions, scholars?” and the NRTs started to share some personal resources that were relevant to the central question about gun control. Theresa, pretending to be a teenager, took the invitation for “clarifying questions” and shared that she felt gun violence wasn’t a serious issue because many people are out on the street every day and “it's not like everybody was being shot.” Faith told Theresa that her response was “really, really valid” and asked her to think about “what we can do to restrict this, this issue?” When Theresa reiterated that she didn’t understand why gun

violence was an issue in the first place, Faith brought in her own personal experience to try to challenge Theresa:

“This is going to be a really sensitive topic again. [Theresa’s] bringing up her own personal experience, but I want you to drive, [Theresa], okay? I lost someone. I’m going to be very transparent like I am with my class. I’ve lost students to gun violence over the years, and I’ve been teaching for a really long time, so how— as a community, how will we break this cycle? Can it be broken?”

Scott, another NRT, chimed in to say “No, I don’t think it can be broken” and Faith continued to facilitate a discussion about the seriousness of gun violence in our communities. While this exchange would certainly be relevant to the *central question* discussion in a DCI, this exchange also suggested that the rehearsing teacher did not track what activity she was expected to lead and which question she was trying to help her “students” to answer. The professional development team intended to design a rehearsal that focused on how credible *Time* was as a source about gun control. Faith’s facilitation of the rehearsal blended some instructions about lateral reading and close reading and then veered into a discussion about the central question.

After the rehearsal, I asked the teachers to offer Faith “points of praise” and “points of polish.” Theresa brought our attention to the difference between the questions we needed to ask during the inquiry arc:

I have an idea. This really goes to what Carlos said, which is *what exactly are we doing?* Because there's like two big overarching questions. It's the, like, lesson four question [the central question], but also like the credibility piece of the source.... And Faith did a, I think, really good job repeating the [central] question, despite me wanting to talk about

my [personal experience], like you still asked the question again of like, so how does this bring us back to gun control?

Theresa was right – Faith successfully led the NRTs to discuss the central question during the rehearsal. But the goal of the rehearsal was to practice answering *the source question*, an important step before students could read credible sources and develop answers to the central question.

Iteration 2

Given these insights from Iteration 1 and the feedback from teachers piloting the curriculum during the 2024-2025 school year, we revised the workshop for Iteration 2 to more intentionally decompose the difference between the source question and the central question *and* emphasize the importance of asking both. Instead of beginning the workshop with a question about when students might bring up their personal resources like I did in Iteration 1, I started by defining the two questions (see Figure 17). We referred to the central question as the “civic question” with teachers in Iteration 2.

Figure 17

Introductory Discussion during Iteration 2

Turn & talk

Each DCI focuses on a civic question, like: Is further restricting gun ownership a valid response to concerns about public safety?

But in Lesson 2 (and sometimes Lesson 3), we ask a more specific source question: Which sources are credible enough to read to learn more about gun ownership and public safety?

Why is this source question in Lesson 2 important?

investigate - - - - - discuss - - - - - act

Then, I asked teachers to explicitly discuss, “If we're trying to answer this [central] civic question– If our big overarching goal of this curriculum is to answer these civic questions with students, why is the source question in Lesson 2 important? Why do we take time to answer that source question?” In small groups, teachers discussed why the source question was important during a digital civic inquiry. For example, one group had the following discussion:

Owen: I feel like we've answered that pretty much the whole time. But it's important because if you don't know if a source is credible, you could be putting in bad information. You could be misinforming yourself. You could be repeating false information.

Christina: I think the wording, which sources are credible enough, it sounds to me like at some point in Lesson 2, I haven't read it yet. But we're collecting a bank of sources, which will be helpful going through the rest of the unit. Because you don't want to be in lesson five, six, seven, and we haven't determined which sources we should even be looking at yet. So, it's good that they're doing that early on in the unit.

Luis: I agree with you all. I feel like once you analyze sources with the credibility lens, then students can get information and determine what decisions to make regarding how they make an opinion. So going on lesson two, it's like a filter. So future opinions will be analyzed and criticized.

In small group discussions like this, the teachers stabilized their knowledge about why the source question was worth asking. Thus, we could use the language of “source question” and “civic” or “central question” throughout the rest of the workshop and refocus on the source question when necessary.

In contrast to the rehearsal in Iteration 1, the rehearsing teacher in Iteration 2, Luis, stayed grounded in facilitating a source credibility discussion. Luis led a rehearsal about the

credibility of two sources, *RT* (formerly Russia Today) and PEN America. Both articles focused on protest rights in the United States. After asking NRTs to repeat the names of the two sources they were evaluating, Luis began, “So we're discussing about protest rights and we looked at these two sources today and we're trying to find which is more credible for you based on what you read laterally. Can anybody participate from any group?” As the discussion continued, some NRTs shared evidence from their personal resources, such as Carter who repeatedly argued that PEN America was credible because it was founded by Robert Frost and Robert Frost was his father’s favorite poet. Other NRTs shared evidence from lateral reading, such as Owen who said he found that *RT* was “a Russia state funded media site that tends to give what many U.S. organizations consider misinformation or conspiracy theories on a regular basis.” In response to each NRT, Luis consistently gave brief affirmations (“Absolutely” or “Thank you for your opinion”) and stayed focused on evaluating the credibility of the sources. When the NRTs shared evidence from lateral reading, he asked them to dive deeper into the credibility of the sources with questions like, “Can you speak more about that?” and “Did anybody else read something related to *RT* that can expand on our understanding of these sources?” Throughout his facilitation, Luis still did not use the *affirm personal resources-orient to source evaluation* moves that the PD facilitators tried to teach. However, through brief affirmation of each NRT’s comments and his questions about lateral reading, Luis kept the rehearsal focused on interrogating whether the focal sources were credible enough to read.

One key moment in the rehearsal occurred when Tara, a NRT, tried to divert the discussion to focus on her opinion on the right to protest instead of the credibility of the sources. She shared, “To go off that, my mom said that if you infringe on my protesting rights that's like against my human rights as a person. It's in the Constitution.” Luis seemed tempted to take up

Tara's comment and discuss the constitutional right to protest, but he paused and used a "time out" to conference with the professional development team about the focus on the rehearsal:

Luis: So now that you're talking about the Constitution, the PEN America article— it talks about protest rights. What do you cut out from that article? *[times out and asks the professional development team]* Did [the NRTs] read the article or do they just laterally read about the articles?

PD Facilitator: Just read laterally about the articles.

Luis: Yeah, because I thought they also did lateral reading and like in-depth [reading] of the article, okay, yeah. *[times back in]* So what was the last question?

While Tara tried to pull the discussion toward the central question, Luis's use of the "time out" here helped him ground his facilitation in the question he was trying to answer with NRTs – Which source, *RT* or PEN America, is more credible to read on the topic of protest rights in the U.S.? While he was the only teacher to facilitate this rehearsal, Luis's facilitation moves showed some evidence that our decomposition of "the source question" and "the central question" in Iteration 2 supported the teachers' learning.

Discussion

The professional development session at the heart of this study aimed to support teachers to respond to students during source credibility discussions in ways that both affirmed students' background knowledge and personal experiences *and* oriented them to reason about digital sources. In both iterations, the teachers recognized opportunities to make these facilitation moves. After targeted revisions were made to the workshop for Iteration 2, teachers validated students' personal resources and oriented students to evaluate sources more frequently. Notably, however, teachers were inclined in both iterations to make additional facilitation moves as they

discussed representations of teaching practice. One of these additional moves – critiquing students’ personal resources – is explored in more depth below.

The findings also revealed key design considerations that supported teaching learning in the workshop. Most importantly, the teachers needed support to decompose and track two questions that they would guide students to answer in digital civic inquiries: the source question (e.g., Is *WUSA9* a credible source of information about gun ownership and control?) and the central question (e.g., Is further restricting gun ownership a valid response to concerns about public safety?). To provide this support, the second iteration of the workshop included a small group discussion about the importance of asking both questions, opportunities to identify the kind of evidence students were using in representations of teaching practice, and representations linked to the issues in the DCI curriculum. These design considerations were key supports to help teachers notice and guide students to use the appropriate evidence for evaluating sources.

Further, in both iterations, the rehearsal process was a clear opportunity for teachers to practice and unpack how to facilitate source credibility discussions in which students shared personal resources. In Iteration 1, for example, the rehearsal debrief allowed Theresa to work through the difference between evaluating sources and answering questions about a civic issue, leading to deeper understanding of the teaching practice for all of us in the workshop. In Iteration 2, the rehearsal provided Luis with an opportunity to practice both affirming the NRTs’ personal resources and orienting them to the details they found from lateral reading. Through his use of a “time-out” during his rehearsal, he tracked which kind of discussion he wanted to facilitate and moved the group forward to focus on source credibility. In these ways, the design of the rehearsal process supported teachers to better understand the goals of a source credibility discussion.

This study applied and extended McGrew's (2025) framework for facilitating source evaluation discussions. In particular, the teachers in this study practiced McGrew's moves for facilitating source credibility discussions: orienting students to evidence from lateral reading, orienting students to conceptions of credibility, and orienting students to each other. In addition, the teachers decomposed and applied an additional move: affirming students' personal resources. This facilitation move was added to McGrew's framework to prepare teachers for source credibility discussions in which students may share their personal resources that feel relevant to the issue at hand, as they are likely to do in a digital civic inquiry. Prior research had shown that teachers were inclined to affirm students' personal contributions as they learned to evaluate digital sources. Teachers in Reynolds and McGrew's (2025) study had frequently affirmed students without orienting them to read laterally, regardless of whether their evidence led them to a sound conclusion about a source's credibility. Therefore, the framework used in this study was conceived to emphasize the importance of *both* affirming students *and* orienting them to investigate the credibility of sources. Even with this framework, the teachers in this study used additional facilitation moves described above. Further research should explore how teachers affirm and critique student reasoning as they learn to evaluate digital sources and whether these discussion moves support student learning.

In addition, the findings highlight the potential challenges of evaluating sources within the context of an inquiry into a controversial public issue. When students evaluate sources while they are on the path to answering a question about a civic issue like gun control, teachers may need time and space to explore why evaluating sources is important. The process of evaluating sources can be tedious and delays opportunities for students to learn about and discuss issues they care about. It was tempting for the teachers in this study to jump into a discussion of the

civic issues at hand. Therefore, teachers may need time to conceptualize why evaluating sources with students is an important part of an inquiry into a civic issue: Source evaluation is an essential skill to prepare students to navigate online environments where content creators vie for attention and reliable and unreliable information appear side by side (Kozyreva et al., 2023). Likewise, this study provided further evidence that teachers can learn from opportunities to analyze what source credibility discussions can sound like in the classroom (McGrew, 2025). Teachers in this professional development benefited from practice analyzing how students in representations of teaching practice used evidence to evaluate sources.

Implications

This study has implications for teacher education and further research. Practice-based teacher education pedagogies— representations, decompositions, and approximations of practice through rehearsals— served as a fruitful framework to prepare teachers for a complex teaching practice (Grossman, Hammerness, et al., 2009; Lampert et al., 2013; McDonald et al., 2013). Through the design research process, I found new and better ways to support teachers to decompose the practice of leading source credibility discussions. In turn, the decomposition of the different questions asked throughout a digital inquiry into controversial issues in Iteration 2 helped teachers understand the focal teaching practice more clearly. The representations of teaching practice allowed the teachers to analyze how students’ personal resources may arise as they are evaluating the credibility of sources. By analyzing the representations, the teachers could practice noticing what kind of evidence that students relied on as they made assessments about sources. The representations promoted discourse among teachers about which responses to students might best support student learning. Finally, as noted above, the rehearsals and rehearsal debriefs created a space for teachers to explore how to respond to students’ personal resources

and orient them to evaluate sources. Teacher educators should keep exploring ways in which practice-based teacher education pedagogies can be used in professional development to support teacher learning around complex practices like source credibility discussion facilitation. In particular, video-based representations of teachers' facilitation of source credibility discussions may help teachers prepare to teach this practice.

Prior research has explored how teachers appropriately challenge outdated evaluation strategies (like judging digital sources by their URL or information in its About Page) (McGrew, 2021). However, existing studies have not yet explored if and how teachers critique students when they use their prior knowledge or personal experiences to make a judgment about the credibility of sources. Thus, what role should critiquing personal resources play in source credibility discussions? The professional development team encouraged teachers to challenge students to think beyond their personal resources by investigating the credibility of sources. However, we chose to emphasize the importance of affirming students' personal resources because these resources play a key role in our civic reasoning (Lee et al., 2021; Nasir & Hand, 2006). Students' background knowledge and personal experiences are important resources as students share their knowledge and initial ideas about a civic issue (Lee et al., 2023) and as students deliberate about and plan to take action on a civic issue (Blevins et al., 2016). Therefore, students' personal resources are appropriate during an inquiry into controversial issues— they are just not the most reliable evidence when evaluating sources due to the human propensity for motivated reasoning (Reynolds & McGrew, 2025).

More research is needed to understand the ways in which teachers critique students' personal resources in classroom contexts and how those facilitation moves may shape student learning. Some of the responses that the teachers used in this study may not deter students from

sharing their personal experiences and background knowledge during other parts of the inquiry, such as the final deliberation. Indeed, direct critiques may support students to learn to evaluate sources more effectively if their own propensity to engage in motivated reasoning is brought to their attention explicitly. Some teachers made facilitation moves in exactly this way in the workshop. Some other challenges to students' reasoning may discourage students from voicing their ideas – such as direct questions about whether they are an expert on the topic or whether their knowledge from their lives outside of school is accurate. To the extent that teachers should critique student knowledge and life experiences, such challenges must be done so in ways that are educative and do not discourage students from voicing and exploring their personal resources in the classroom. Further studies should investigate if and how teachers can challenge students to think critically about their personal resources without dismissing them as they evaluate digital sources.

Limitations

This study has some limitations. First, I relied solely on the reasoning that teachers voiced and was captured by audio recordings of their discussions. Other forms of data collection, including video recordings or teachers' written reflections, may have provided further insights into how they thought about responding to students' reasoning in the classroom. Second, this study focused on a modest number of teachers within one professional development program. While data were collected across two iterations of the program, future studies should explore how teachers in different professional development and curricular contexts prepare to lead source credibility discussions. Third, teachers' discourse in the professional development setting is not necessarily a representation of their classroom facilitation. This study did not investigate how teachers extended their learning into the classroom. Further research is needed to understand how

teachers facilitate source credibility discussions in the classroom as they respond to students' personal resources and whether the findings from this study extend into classroom environments. Finally, teachers in disciplines outside of social studies may make different decisions about how to navigate students' personal resources as they evaluate sources of sociopolitical information. For example, science or ELA teachers may explore the role of personal resources in different ways than their social studies counterparts. Therefore, future studies should seek to understand how teachers in other disciplines prepare to lead source credibility discussions in which students' raise their personal resources.

Conclusion

When we encounter digital information that feels relevant to our prior knowledge and experiences, we naturally make initial assessments about its credibility. If that information fits with what we already know, we are likely to trust its veracity, but if the information contradicts our understanding of an issue, we may reject it or cast it off as untrue. As we try to decide who we should trust on pressing civic issues, relying on our prior knowledge and experiences alone may lead us to unreliable conclusions. Our prior knowledge is limited, and our beliefs are biased toward our own personal experiences. When we are trying to decide whether a source is credible – especially online in a sea of information sources that vary in credibility – it is important to think beyond just which sources agree with us or reflect our life experiences. Our decisions about who to trust need to focus on a source's credibility whether they challenge us to think differently or not. As adults and children are both wired to engage in this kind of directionally-motivated reasoning, it is important for teacher education to explore ways that teachers learn to engage in complex discussions about sources in the classroom. This study took on that challenge. Through iterations of a practice-based approach to professional development, this study provided insight

into the ways teachers can learn to navigate the opportunities for and challenges to recognizing students' directionally-motivated reasoning, affirming students' personal resources, and orienting them toward the complex work of source evaluation in the classroom.

Chapter 4: Exploring Civic Inquiries on Social Media with Pre-Service Social Studies Teachers

Over the last two decades, social media has become pervasive in the lives of youth in the United States. Social media offers opportunities for civic learning, participation, and activism not available from traditional media. At the same time, social media environments are polluted with disinformation and hate. Teenagers may encounter systemic injustice online and struggle to find credible information. In response to these trends, researchers and educators have advocated for and started to design classroom instruction that helps students build digital citizenship skills they need to participate in contemporary politics (e.g., Felton et al., 2023; Garcia et al., 2020; Kahne et al., 2016; McGrew et al., 2018; Middaugh, 2019; Mirra & Garcia, 2023; Stoddard, Tunstall, et al., 2021).

Yet, there is a persistent disconnect between how people use social media inside versus outside of school. Outside of school, the majority of teens across demographic groups use social media apps like YouTube and TikTok every day. One third of teens say they are online “almost constantly” (Faverio & Sidoti, 2024). Young people have increasingly reported searching for and receiving their news on social media apps (Clark & Marchi, 2017; Huang, 2022; Leppert & Matsa, 2024). According to the News Literacy Project, 83% of teens typically get their news on social media, but only 22% of teens follow traditional news organizations (The News Literacy Project, 2024). Young adults are also likely to get their news from social media sources with 76% of adults aged 18-29 doing so (St. Aubin & Liedke, 2025). In sum, outside of school, both teens and young adults consistently seek out, encounter, and consume a variety of sociopolitical content on social media apps.

Inside of school, however, classrooms that endorse and actively engage students' use of social media platforms to learn about current issues are likely hard to find. In many ways, this is well warranted. School leaders, parents, and health experts have raised concerns about the impact of social media use on students' mental and physical health. Former Surgeon General Vivek Murthy has advocated for warning labels to be placed on social media apps so teenagers can become aware of the health risks of overuse (Murthy, 2024). From a learning perspective, phones and apps that distract students have been a source of frustration for teachers. In a survey of National Education Association members, 90% of teachers said that cell phones should be prohibited during instructional time and 83% supported banning cell phones for the entire school day (Walker, 2024). School districts and states are listening to these concerns and increasingly exploring ways to ban their use in school (Demillo, 2025). Thus, it is unsurprising that social media platforms are not part of students' regular classroom instruction.

While these concerns and policies are justified, civic educators who teach students to take informed action on sociopolitical issues face a dilemma: Should we push students away from their phones and social media apps to focus on instruction while knowing that students turn to those very platforms to learn about the news and current issues outside of school? Instead of fully banishing social media from the classroom, what might it look like for teachers to mindfully engage students in investigating sociopolitical topics in the contexts where students and adults often do so in their everyday lives?

Research has just started to scratch the surface of what this kind of classroom instruction might look like. This study explores how a group of young pre-service social studies teachers (PSTs)– those that are likely to use social media for news consumption themselves – use social media to engage in an inquiry into a controversial public issue. Further, I investigate how these

PSTs plan to engage their own students with social media in their future classrooms. In turn, this research sheds light on how secondary social studies teachers use social media to engage with sociopolitical information and how teacher education efforts may prepare them to engage in these activities with their students.

Literature Review

Teenagers, Social Media, and Civic Engagement

Social media provide young people with opportunities for political engagement (Kahne et al., 2016). Despite the impression that teens just engage in “slacktivism” online (Jenkins & Lopez, 2018), teens have successfully leveraged social media to create sophisticated political content, networks, and social movements. For example, after the school shooting at Marjory Stoneman Douglas High School in Parkland, Florida in 2018, student activists demonstrated facility with multiple media platforms to build the March for Our Lives movement and spread their message about gun control (Jenkins & Lopez, 2018). In another context, students in the Philadelphia Student Union leveraged digital technologies and social media to create coalitions across their city and lobby for increased school funding (Conner & Slattery, 2014). While teenagers can and do build networks and advocate for change through digital platforms, their civic engagement online often takes milder forms, such as engaging with accounts that help them stay informed about pressing issues or sharing posts to advocate for their preferred policies.

Yet, the rise in young people’s social media use coincides with growing concerns about hate and disinformation online. Young people frequently struggle to discern credible digital information (Breakstone, Smith, Wineburg et al., 2021; McGrew et al., 2018) and may be taught outdated evaluation strategies that do not help them make strong conclusions about what to trust (Breakstone et al., 2018). Even when students learn effective strategies to evaluate digital

information, social media environments make this task particularly difficult. Recent examples of online disinformation campaigns are abundant, and they often explicitly target users' identities and emotions to exploit existing social inequalities (Kuo & Marwick, 2021). The Russian Internet Research Agency interfered in the 2016 U.S. presidential election by pushing false and misleading posts to Black Americans and Americans in economically distressed geographies to suppress voter turnout (DiResta et al., 2019; Select Committee on Intelligence, 2020). Conspiracy theorists like Alex Jones labeled the survivors of the Parkland school shooting as "crisis actors" in viral posts online to question the credibility of the teenagers and smear their efforts to build coalitions for gun control (Janik, 2018). Xenophobic actors have leveraged social media spaces to spread moral panic and misinformation about Latin American immigrants to the U.S., resulting in expanded anti-immigrant attitudes (Flores-Yeffal et al., 2019). In these examples and many others, mis- and disinformation circulating online amid rising anti-democratic movements have polluted political discourse and have made evidence-based political engagement more challenging for teenagers.

The costs of engagement on these polluted digital spaces can be quite high. When researchers at Media Matters interacted with anti-transgender content on TikTok, they were increasingly fed other extremist and anti-democratic content that pushed homophobic, misogynistic, and White supremacist views (Little & Richards, 2021). Research has also found that young people of color are exposed to racial epithets, discrimination, racially-biased search results, and threats of violence online (Noble, 2018; Tynes et al., 2015; Tynes, 2021). Tynes et al. (2024) found that, for Black teenagers, exposure to violent rhetoric and racial discrimination online was associated with symptoms of post-traumatic stress disorder and suicidal ideation. These realities understandably make adults alarmed about the social media spaces that young

people occupy, both for their own personal development and the health of our multiracial democracy.

Digital Citizenship Education with or about Social Media

To confront the fact that many teens use social media “almost constantly” despite these grim realities (Faverio & Sidoti, 2024), civic educators and scholars have called for and conceptualized digital citizenship instruction that prepares young people to navigate and create political content in online environments (Kahne et al., 2016; Garcia et al., 2020; Mirra et al., 2018; Stoddard, Tunstall, et al., 2021). Yet, conceptualizations of digital citizenship education differ in their civic priorities and recommendations for educators (See Figure 18). Garcia et al. (2020) described three domains of digital citizenship education currently being pursued in schools: safety/civility, information analysis, and civic voice/engagement. The safety/civility domain, which emphasizes privacy and respectful dialogue, is the most common focus of school efforts to teach digital citizenship. The information analysis domain (instruction on how students should reason about and evaluate online sources) and the civic voice/engagement domain (instruction on leveraging online spaces for civic participation) are less commonly pursued. An emphasis on online safety and civility alone falls short of the educational needs of young people: Students also need to be prepared to navigate and participate in the complex media environment through authentic experiences with the affordances and challenges of digital spaces (Garcia et al., 2020).

Figure 18

Typology of Current Digital Citizenship Education



FIGURE 7-1 Typology of current digital citizenship education.

From Garcia et al., 2020

Research on digital citizenship education can thus be characterized by an ongoing tension between teaching for the *possibilities* that social media and digital technologies can afford and the representing and preparing students for the *realities* of social media platforms as they exist. To foster possibilities for students to engage in civil discourse or build their public voice, some curricula have used controlled social networking environments that simulate many of the features of real-world sites like Facebook, but were closed to the broader internet (e.g., Middaugh & Evans, 2018; Mirra & Garcia, 2020; Reich et al., 2014). For example, the Youth Voices platform, a social networking site designed for educational use, allowed students to post their own work on social and political topics and interact with the work of their peers in their class and at other schools (Hodgin, 2022; Middaugh & Evans, 2018; Middaugh, 2019). After using the Youth Voices platform, students said they felt safer to express their views, reported increased confidence in their public voice, and felt affirmed by positive feedback from peers without the risk of unsolicited comments from internet trolls (Middaugh & Evans, 2018; Middaugh, 2019). Middaugh (2019) argued that the Youth Voices platform created a

“counterpublic” for students to engage in civil discourse and avoid the “outrage language” typically found on authentic social media sites (p. 29). Thus, through the creation of a safe and controlled space for productive discussions with peers online, students had civic learning opportunities that were unlikely on authentic social media sites.

Utilizing other technologies, students have engaged in civic reasoning and discourse that more closely approximate online realities but still shields students from algorithmic environments and interactions with the greater public. Research and teaching with the Civic Online Reasoning (COR) curriculum from the Digital Inquiry Group has prioritized the selection of authentic, live websites and posts on political topics that students may encounter on the open internet (McGrew & Breakstone, 2023). However, students’ exposure to digital content in these lessons is almost always done in absence of the algorithms that push information to social media feeds or a search engine results page. Students in the Digital Democratic Dialogue (3D) Project have posted to Edmodo, an online discussion platform designed for students, and engaged in dialogue about social topics with peers from politically-diverse geographies across the country (Mirra & Garcia, 2020; 2022). Even though they were using an educational platform, some students got the chance to navigate emotionally-charged online discourse when a discussion of LGBTQ rights included the kinds of discordance, incivility, and questionable claims that are typical in online environments (Mirra & Garcia, 2020). With the support of their teacher, students brainstormed appropriate responses to sexist and transphobic comments from a peer and crafted thoughtful replies. In effect, the students witnessed budding empathy for different life experiences from a peer who had expressed intolerant views (Mirra & Garcia, 2020).

The Youth Voices platform, COR curriculum, and 3D Project, as well as other projects, have all facilitated civic learning opportunities that may not have been possible if students just

turned to the open internet without a scaffolded educational environment. At the same time, some realities of the open internet were mitigated or avoided by the support of community norms and problem-solving discussions with a teacher. There are real reasons to cultivate safer experiences with social media, but as civic media literacy scholars and educators have acknowledged, these scaffolded experiences can prioritize safety and civility and in turn, limit opportunities for building civic understandings and skills that are necessary in real online environments (Garcia et al., 2020). More research is needed to explore if and how civic educators can prepare young people to critically analyze social media platforms as they exist in reality while preserving spaces for students to learn and feel empowered to engage in participatory politics.

Teacher Education about Digital Citizenship Education

If students use any kind of social media in the classroom, teachers will play an essential role in facilitating student learning. Intentionally scaffolded class activities have been important to teach online evaluation skills (e.g. McGrew & Byrne, 2021; Wineburg et al., 2022), to develop student confidence in their public voice (Middaugh & Evans, 2018), and to support students to engage thoughtfully with peers' digital products (Felton et al., 2023; Mirra & Garcia, 2020). Research suggests that teachers need support to develop digital citizenship skills and pedagogies, especially when students engage in more authentic media environments. Studies on teaching online evaluation skills have found that teachers often use and teach outdated and ineffective strategies for evaluating online content, like judging a site based on its domain name or its professional appearance (McGrew, 2021; Weisberg et al., 2022). Further, teachers may need to develop their own conceptions of credibility and practice how to coach students to apply these conceptions of credibility to evaluate authentic online content (Clark et al., 2020; McGrew et al.,

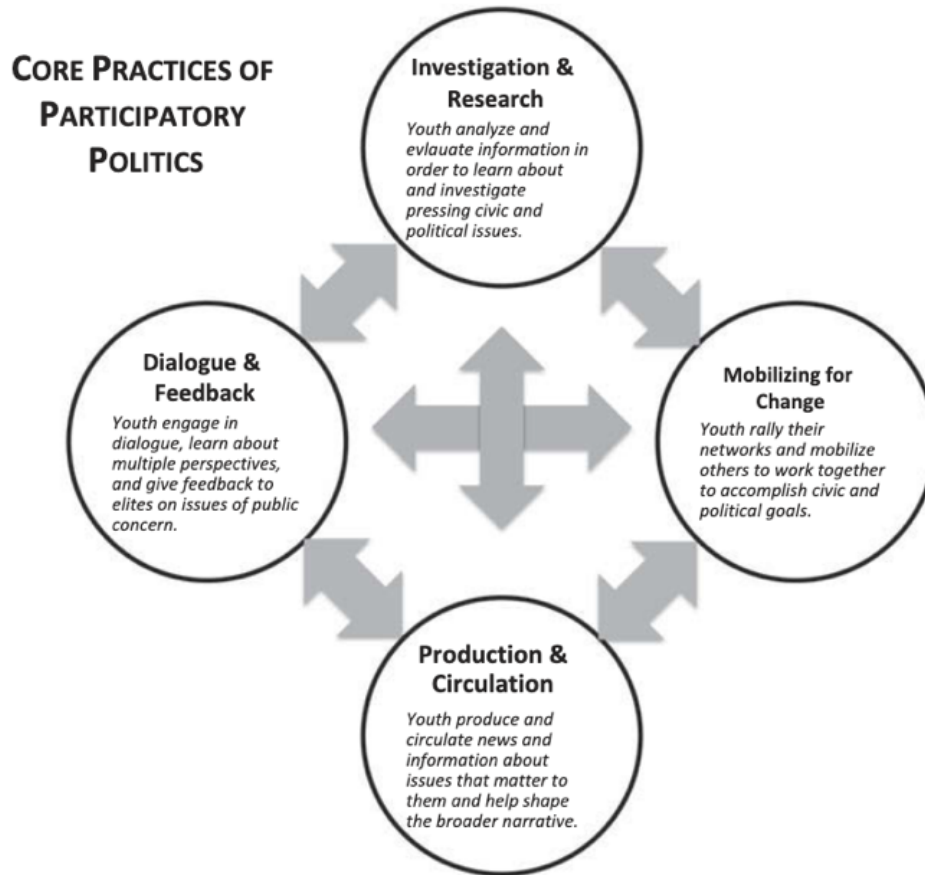
2024). Exploring the news media with students can be a source of anxiety, especially for novice teachers who are developing their pedagogical skills more generally (Schmeichel et al., 2018). As teachers prepare to engage with instruction on topics that can cause controversy, teacher educators play a key role in supporting teachers to explore ways to manage contention in the classroom, build strong digital information analysis skills, and promote civic voice and engagement with their students.

Conceptual Framework

This study investigated how pre-service social studies teachers (PSTs) use social media sources to engage in *core practices of participatory politics* (Kahne et al., 2016). Kahne et al. (2016) conceptualized four core practices of participatory politics in which “digital age technology and social connectivity have meaningfully altered the form and dynamics of civic and political life” (p. 9): 1) *investigation and research*; 2) *dialogue and feedback*; 3) *production and circulation*; and 4) *mobilizing for change* (See Figure 19).

Figure 19

Core Practices of Participatory Politics



From Kahne et al., 2016

While participatory politics are not bound by digital spaces, the internet has provided new opportunities for people to engage in each core practice. People now can *investigate* and *research* with easily accessible and abundant information about civic issues from varying perspectives across the internet. The internet has created new opportunities for *dialogue* with diverse interlocutors and to give *feedback* to elites and other stakeholders, where people in the past had to engage in discussion with close, in-person networks or in public forums. While people once had to rely on institutions and elites for information, people can now *produce* and *circulate* posts about the news and public issues that they care about through modern technologies and platforms (Kahne et al., 2016). Finally, people can leverage the internet to

mobilize for change, or “rally their networks and mobilize others to work together to accomplish civic and political goals” (Kahne et al., 2016, p. 9). Through these practices of participatory politics, digital technologies create opportunities for young people to bypass traditional organizations or gatekeepers and form their own networks and campaigns. While research on digital citizenship education has explored these core practices, few studies have explored core practices of participatory politics on live, algorithmically-driven social media feeds that characterize current social media use (see Felton et al., 2023 for an exception).

The Present Study: A Social Media Inquiry in a Teacher Education Context

This study explored how social studies PSTs engaged and planned to engage their students in core practices of participatory politics with social media sources. The workshop at the center of this study mirrored how many young people use social media in their everyday lives: they go on an app, find or encounter the news, learn about an issue or event, share what they learned in conversations with their peers, and decide what, if anything, they should do about it. To engage in the workshop, PSTs first *investigated* an issue on social media as they might in their own lives, then *circulated* information from their research about the issue, and finally, engaged in *dialogue* about the issue with their peers. Through a debrief of this process and individual interviews, this study also explored how PSTs planned to engage (or not engage) social media sources in similar investigations in their own classrooms. In this study, I asked:

1. How do social studies PSTs use social media sources to engage in core practices of participatory politics? What opportunities and challenges to engaging in the core practices do they experience?

2. How, if at all, does the opportunity to engage in a workshop focused on a classroom inquiry with social media sources shape how social studies PSTs plan to engage social media sources with their students?

Methods

This study was an embedded, instrumental case study (Sena, 2024; Stake, 2006; Yin, 2014) into the ways social studies teachers can use social media platforms to engage in and plan to teach core practices of participatory politics.

Participants and Context

Data for this study were drawn from a workshop with 16 pre-service social studies teachers who were in the final, spring semester of their teacher certification program and student teaching placements. They were recruited from two university courses in a social studies teacher education program. Nine students were undergraduates and the seven students were pursuing a master's degree. The two courses were taught by separate instructors who often collaborated based on their shared objectives. All enrolled PSTs consented to participate in and be filmed as part of the study, but one student was ultimately unable to attend the workshop. Participants ranged from age 21 to 30, with an average age of 22. Fourteen students identified as White, one as Asian/Asian American, and one as West Indian. Eight students identified as male and eight identified as female.

A month prior to the workshop, I visited the courses to recruit the participants and review and distribute consent forms via Qualtrics. In agreement with the course instructors, all PSTs in these courses were relieved from their responsibilities at their student teaching sites for a complete workday to participate in the workshop, but participation in the research was voluntary.

During the recruitment process, PSTs were informed that their choice to participate in the research study would not affect their performance in the course.

Procedures

One month before the workshop, the PSTs completed a survey to identify social or political issues that a) they cared about and b) they would be open to discussing with their peers. Their responses informed the development of the central question in the workshop:

Imagine that you are a teacher in a state that has a divisive concepts law. The law bans any kind of “political indoctrination” in the classroom and instructs teachers to impart “knowledge and skills that are patriotic and non-controversial.” How would you respond as a social studies teacher, if at all, based on the requirements of this law?

This central question was chosen because it was possible to conduct additional research on social media and aligned with the issues the PSTs reported to care about.

The workshop took approximately three hours. First, the PSTs completed a pre-survey on Qualtrics (see Appendix C for the pre-survey). The pre-survey was approximately 10 minutes long and asked about demographic information, social media and news consumption habits, perceptions of their middle or high school students’ social media habits, their plans to engage social media sources with their students, and their willingness to participate in an optional post-workshop interview. The questions about social media habits were adapted from the Pew Research Center (2024). After the pre-survey, I facilitated the workshop. Table 15 describes the goals, the facilitation procedure, and the data collected for the three stages of the workshop.

Table 15

Civic Inquiry with Social Media Workshop

Stage	Participant Goals	Facilitation Procedure	Data Collected
Stage 1: Assess Initial Beliefs (20 mins)	1. Establish community norms	1. Display community norms on a Slide. PSTs share revisions or additions to the community norms.	
	2. Assess views on the central controversial issue.	2a. PSTs independently complete an anticipation guide to express their level of agreement/ disagreement with different statements related to the central question.	2a. Written anticipation guides
		2b. PSTs engage in a “Take a Stand” activity where they move to a side of the classroom that reflects their level of agreement/disagreement with the statements from the anticipation guide.	2b. Video recording of Take a Stand activity
Stage 2: Research and Circulation (45 mins)	1. Search for online information about the central question.	1a. Introduce the research task: “Use social media platforms like YouTube, TikTok, Instagram, or others to find out more about the central question. You can leave a social media site to follow a link, but please make sure all of the sources you use were first found on social media. Any sources are acceptable, and I encourage you to seek out information like you might in your everyday lives. After your research, I am going to ask you to share the sources that you relied on to learn more. Please consider using screenshots or notes to remember these sources so you are ready to share them.”	1a. Written research notes
		1b. PSTs browse social media for information about the central question. Remind PSTs to take screenshots or brief notes about the relevant sources they consult.	1b. Observation notes during PSTs’ research
	2. Share the sources they consulted with peers in small groups.	2. Organize PSTs in small groups of 3-4 participants. PSTs discuss their process of researching on social media, the sources they found while browsing, and why they chose to read, watch, or engage with those sources. (15 mins)	2. Audio recordings of small group discussions about sources

	3. Synthesize arguments and evidence about the central question	3. PSTs prepare for a deliberation by independently writing down arguments and evidence that they want to share during the discussion. (10 mins)	3. Written arguments and evidence to share in discussion
Stage 3: Deliberation and Plan for Action (30 mins)	1. Deliberate the central question with peers	1a. Small groups of PSTs discuss the central question briefly.	1a. Audio recordings of small group discussions
		1b. Lead a whole group discussion about the central question, encouraging PSTs to engage sources from social media and evidence from their own lives in the discussion. See Appendix D for a draft discussion protocol.	1b. Video recordings of whole group discussions

The first stage focused on establishing community norms. The PSTs knew each other well from their coursework, but the community norms aimed to support an open and respectful climate for dialogue. The first stage also aimed to activate their prior knowledge and beliefs about the central question before they engaged in research. In the second stage, the PSTs investigated the issue further through research on social media. PSTs were encouraged to use screenshots or brief notes to record sources that they found relevant and useful. During this stage, I circulated around the room and recorded observation notes based on the students' research processes. Stage 2 also provided time for PSTs to share the information they consulted orally with their peers and to synthesize arguments and evidence they wanted to share during the dialogue. Finally, in Stage 3, I facilitated a discussion about what the PSTs learned from social media sources and how they could apply these insights if they were asked to teach under a divisive concepts law (see Appendix D for the protocol). The PSTs first started by discussing the central question in small groups before I led them in a full group discussion. After facilitating the discussion, we debriefed the process of engaging in the workshop and how the PSTs might

engage in a similar instructional sequence with their secondary students. This debrief process started with small group discussions. Then, we discussed the process as a whole group, including how they engage in core practices of participatory politics in their own lives and the benefits and drawbacks of engaging in this kind of inquiry with their own students.

Data Sources

Data collected during the workshop are listed in Table 15. Video recordings captured whole-group dialogue and non-verbal communication throughout the workshop and workshop debrief (e.g., how the PSTs express agreement or disagreement with a statement during the Take a Stand activity). Small group discussions were audio recorded to capture as many voices as possible from these discussions. Finally, eleven PSTs volunteered to be interviewed after the workshop (see Appendix E for the interview protocol). I conducted interviews on Zoom or in-person at the PST's preference. Each interview was audio recorded and took approximately 20-30 minutes. All data from the workshop and interviews were transcribed using AI software (Trint) and reviewed for accuracy.

Analysis

The analyses for Research Questions 1 and 2 focused first on coding various data sources and then writing analytic memos to understand how the teachers used social media sources in the workshop and how they planned to use them with their students. Using the analytic memos written for Research Question 1 and Research Question 2, I sampled four teachers to serve as the embedded units of analysis (Yin, 2014) for the case study and returned to my data analysis to write portraits of each.

Research Question 1

To analyze Research Question 1 about how PSTs used social media sources to engage in core practices of participatory politics, I relied on data from Stage 2 and Stage 3 of the workshop, including my observation notes, transcripts of audio recordings from small group discussions, PSTs' written research notes, and transcripts of recordings of the deliberation. In reviewing each of these data, I analyzed how the PSTs used social media sources to engage in three core practices of participatory politics: *research*, *circulation*, and *dialogue*. Since the PSTs did not have time or opportunities to *mobilize for change*, particularly in this context where the central question they were asked to consider was hypothetical, I did not analyze how the PSTs used social media sources to engage with this fourth core practice of participatory politics.

Investigation and Research. To explore how the PSTs engaged in research, I first created a list of sources that students engaged. For example, on their research notes, PSTs typically wrote down at least 2 sources they consulted. Then, I categorized these sources through multiple passes through the data. The final categories included *legacy media organizations*, *new media organizations*, *content creators*, and *personal connections*. To further explore this core practice, I analyzed their discussions of their research process in small groups and interview data. I coded the PSTs' descriptions of their research process as 1) searched key terms, 2) scrolled social media feed, 3) went to specific profiles (e.g., the *Washington Post* or NPR), and 4) switched platforms. Each PST's research process could have any combination of these four codes. Finally, I coded how the PSTs reported that they made choices of sources to consult. After multiple passes through the data, I used four codes to describe their decisions about what sources to consult: 1) perceived credibility, 2) preference for content (e.g., agreement or disagreement with the perspectives shared in a post), 3) perceived relevance, and 4) content features (e.g., aesthetics, popularity, or verification status). Each PST's reasoning about the sources they chose

to consult could be coded with any combination of these four codes. In the interviews, I asked about the sources each PST used during the workshop and why they chose those sources. Then, I coded interview transcripts using the same codes used to analyze the transcripts of the discussions from the workshop. The available interviews added context about the social media use of those PSTs.

Circulation. In the circulation stage, the PSTs were prompted “to describe their process of researching on social media, the sources they found while browsing, and why they chose to read, watch, or engage with those sources.” To explore how PSTs circulated information, I identified the sources that the PSTs chose to share with their peers during their small group conversations after their research and compared them with the lists of sources documented during analysis described above. Further, I developed codes through multiple passes through the data to analyze how the PSTs chose to circulate the information they found. This process resulted in three codes: discussions of research processes, discussions of the central question, and discussions of the social media environment. Then, I coded the transcripts of the small group discussions using these codes.

Dialogue. Next, I focused on how the PSTs used the social media sources and other sources of evidence to discuss the central question with their peers in the workshop. Through multiple analytic passes of the transcripts of the recorded small group and full group discussions in Stage 3, I developed three codes to describe how the PSTs used social media sources in their discussions: their engagement with social media sources produced a) *relevant evidence*, was characterized by b) *evidence not found*, and/or helped them reflect on the influence of c) *social media environments*. For the *relevant evidence* code, I coded any dialogue when a PST referenced a source explicitly or shared content from a social media source to support an idea

about the central question. For the *evidence not found* code, I recorded all dialogue when PSTs acknowledged that they did not find evidence for a particular claim (e.g., when a PST noted that they could not find social media posts about state level school policies or did not find posts about teachers who followed divisive concepts laws). Finally, I identified segments of the discussion when PSTs discussed the social media environment more broadly.

Synthesis. To answer Research Question 1, I wrote an analytic memo that summarized how all 16 PSTs used, shared, and discussed social media sources throughout the workshop. In particular, I focused on the opportunities that social media sources afforded the PSTs and the challenges they faced as they tried to investigate, circulate, and discuss information.

Research Question 2

The analysis for Research Question 2 focused on the pre-survey, workshop debrief (both small group and full-group discussions), and interview data to understand how all 16 PSTs planned to engage social media sources in their classrooms, if at all. I began coding the transcripts of the workshop debrief (both small and large group discussions) with three codes to describe PSTs' views on using a social media inquiry in their own classrooms: *opportunities* (for using social media sources in their classrooms), *challenges* (for using social media sources in their classrooms), and *changes* (need for the PSTs to conduct a similar inquiry with their own students). During an initial pass of data analysis, I inductively developed subcodes for each of these three categories. The *opportunities* code had two subcodes: *authentic contexts* and *evaluation and other skills*. The *challenges* code also had two subcodes: *authentic contexts* and *classroom context*. Finally, I developed two subcodes for the *changes* code: *additional instruction* and *additional scaffolding*. Then, I coded the workshop debrief and interview data again with the final set of codes. To answer Research Question 2, I wrote an analytic memo that

compared the opportunities, challenges, and changes the PSTs described in the workshop debrief and the interviews.

Sampling and Synthesis

After analyzing the participation of all of the PSTs, I chose four teachers as the embedded units of analysis for the case study. I sampled one teacher from each small discussion group, focusing on teachers that illustrated the diversity of the social media practices among the PSTs (in the workshop and in their everyday lives) and their varied plans to use social media in the classroom. Three of the focal teachers were White men; one was a White woman. Two of these PSTs were undergraduates (aged 21 and 22) and two were master's students (aged 23 and 30). After sampling four teachers, I returned to the data to write a portrait of each focal teacher's participation in the workshop, relying on their pre-survey and interview transcripts to describe their everyday social media habits and my coding and analytic memos to describe their participation in the workshop and the workshop debrief.

Findings

The four portraits below illustrate how the PSTs used social media in their daily lives and in the workshop. All four PSTs investigated social media sources about K-12 teachers' academic freedom, circulated what they found in conversations with peers, and discussed how teachers can respond to laws about “political indoctrination” in schools. Throughout these discussions, the PSTs also reflected on the affordances and limitations of using social media for political engagement and how, if at all, they should teach about social media in the classroom.

Dan: A Recovering Political Poster

As a master's student at the age 30, Dan was the oldest in the group. On his pre-survey, he was also the only student to report that he does not regularly get news from social media.

While he used apps like Instagram and YouTube, he was clear during his interview that he did not “use it for any of [his] news.” He said, “If I see a headline [on social media], I will go to some outlet or journal or the AP or something” to find out more. Dan’s reported news consumption habits were relatively new for him: He used to rely on social media “for essentially most of [his] social engagement” up until “a couple of years ago.” Dan described himself as “the person who was engaging in whatever nitpicking fights” about politics, writing “eight page long social media posts.” Dan slowly realized this level of social media engagement was too exhausting for him. In his post-workshop interview, Dan shared:

I found myself initially trying to convince people who had maybe misinformation or misconceptions [but then I was] actively engaging with... elements on the far right or left who are engaged in borderline violence, discrimination, hate, that kind of thing. And it was just way too much to always have in my orbit.”

When he felt like his posts were “sort of a drop in the ocean” and he could “still reach out to people [he knew]” in real life, Dan started to significantly limit his social media engagement to once a day to just follow his friends and real-world connections.

Engagement during the Workshop in Core Practice of Participatory Politics

Like three-fourths of the PSTs in the group, Dan approached the research process by opening up different apps (Instagram, Facebook, and YouTube) and testing out key word searches for relevant “people, states, organizations, and policies” related to the central question of the workshop. Dan decided to engage with three sources: WMNG News 6 (a local news station from Orlando, Florida), Brut America (the U.S. branch of liberal digital news outlet based in France), and an account he named as “sarcastic news mom” who “styled themselves as like a freelance journalist.” He chose these sources because they offered longer-form content, which he

described as “two minutes or longer,” or “because [he] thought it would be funny.” He described WMNG News 6 as a “legitimate news source” while the other two sources were primarily social media accounts with “substantial followings.” Dan said he spent his time during the research stage comparing the three sources of information but was frustrated that he could not find more information relevant to the central question in the workshop. Many other PSTs voiced similar frustrations about not finding exactly what they were looking for, but Dan stood out as the only PST who felt that he could not find *any* relevant posts.

This frustration perhaps led Dan to primarily share reflections on his everyday social media use during the circulation stage of the workshop. As described above, Dan shared with his group how he “took a step back from social media” because he was consumed by the apps. While he still used social media because it was “the way to be present in the world,” Dan told his group that he used to be overinvolved “to the point where it was like actively ruining [his] days all the time.” He added that “taking a step back” from social media was “one of the better things [he] ever did.” With this experience in mind, Dan elevated the way social media platforms work in his small group:

I think that it's important to remember over the last couple years, I know you both already know this, but just my thinking, is like the way that actual social media engines work, and not just how the algorithms work, but like the powers at be. Like [companies] fundamentally changed how [platforms] work. Before it was like, here's all your friends and what they're saying. And now it's like, oh, we want to get you as engaged as you can be.

In comments like this, Dan was one of multiple PSTs to bring his group beyond a discussion about which social media sources could inform their approach as teachers to divisive concept

laws. Dan raised questions about the power of social media algorithms and the kind of information they present.

In the discussions of the central question, Dan drew on news stories he had heard *before* the workshop to develop his position. Dan explained that he had seen two categories of teacher experiences: “teachers that are just not complying, right, and then they're dealing with the repercussions of it” and “teachers are being sort of caught in the crossfire of like a parent or an administrator coming in and being like, ‘oh, this text or whatever has this thing in it’ and they're getting flagged for it.” In turn, Dan imagined how he might respond: “I am fortunately one of those teachers that would not care. I would be like, go ahead, suspend me, and I will go on every network, and write on every editorial board, and make your life very difficult.” Yet, there was no evidence that the research he conducted during this workshop helped him reach these conclusions. A third of the PSTs – all of whom took the same approach by searching for key words on social media apps – similarly did not voice evidence from their research as they discussed the central question in the workshop. Rather, Dan and these four other PSTs drew on their values as educators and their prior understandings of news stories to make claims about what they would try to do.

Plans for Teaching with and about Social Media

Despite his personal evolution on engagement in politics on social media and his frustrations with the information he found during the workshop, Dan was the most enthusiastic PST about teaching students how to use social media platforms. Dan argued that social media is “the new town square” – an “accessible form” of media where “you have actual power” because “the masses are actively engaging in that space.” Thus, he believed that engaging with social media in the classroom would help students take civic action. He remarked, “[our students] have

it in literally the palm of their hand to do it, right? So, when you're talking about students taking action, being informed of their beliefs and engaging other people, it is the easiest way to do it in human history that we've had so far.” While his peers were more skeptical about using social media apps in the classroom, Dan was notably the only PST confident that his students could handle the challenge of intentional phone use in class. Dan attributed this confidence to a successful model from his mentor teacher in his student teaching placement. Dan recalled his observations, stating:

I was ready for a 10 out of 10 disaster because I know this class— they're high energy, it's before lunch, and I was like, here we go, right? And it was exactly the opposite. If you set the expectation that there's going to be some kind of discussion... you would be surprised how much they are ready to share what they'd think... And [the students] were ready to say here's what I believe, here's where I saw it, and the fact that they could point to it using a device that they're already on— it was like they were waiting for someone to ask them. And none of their teachers had given them the opportunity.

Because he watched his mentor teacher do it, Dan saw opportunities to engage students with authentic social media platforms in ways his peers did not, despite his skepticism about the productivity of political discourse online.

Eric: A Social Media Denizen

More than any other teacher in the group, Eric, a 21-year-old PST, was enveloped in social and political discourse online. He described social media as the “major way I take in the news.” During his interview, he reported that he followed a lot of different legacy news organizations on Instagram, such as NBC News, *The New York Times*, and *The Washington Post*, as well as “more like left-leaning [sources on TikTok] where I get my opinion stuff from.” Eric

stood out in his small group discussions for his defense of finding news and political commentary on social media. While his peers were overwhelmed by and took breaks from consuming political content on apps like TikTok, Eric believed it was an important way to stay informed. “Every news organization is on social media,” he explained, “If I follow the NBC account on Instagram, it’s like watching NBC Nightly News on TV. It’s the same thing.” In contrast to the legacy news he followed on Instagram, Eric compared the TikTok videos he regularly consumed to an opinion panel on CNN where he could listen to political commentary. He described social media as a “treasure trove” where it is “so easy to see anyone’s political affiliation.”

In turn, Eric said he could quickly judge who he aligned himself with politically. Eric admitted, “At this point, if someone [on social media] agrees with me, they’re right.” Four other PSTs across the group agreed with this sentiment about seeking out sources that aligned with their politics. Despite Eric’s affinity for left-leaning sources, he also liked to look at Truth Social, a social media platform owned by President Trump, for right-leaning content. Eric encouraged his small group to check Truth Social, too: “I searched on Truth Social, which by the way, if you’ve never encountered Truth Social, do it, because it made me understand the Trump movement so much more.” Through social media platforms from Instagram to TikTok to Truth Social, Eric actively sought out political content, including stories from legacy news organizations and posts from partisan influencers.

Engagement during the Workshop in Core Practice of Participatory Politics

Eric had perhaps the most success of any PST in researching social media sources that he felt were relevant to the central question in the workshop. He first went to his TikTok feed and searched “education in Florida” because he knew “Florida is a state that is very controversial

with this stuff right now.” He found and watched a TikTok from ABC News, “a reliable source...about how the Florida teaching standards changed for social studies and how you're gonna teach about...slavery.” Before he searched for more legacy news coverage of similar laws, Eric wanted to find information that “was more common” or “more similar to the sources I usually see on TikTok.” For Eric, this meant looking for “random people or like political commentators giving their take on an issue that I agree with.” Eric explained:

And so, I found this guy who, I went through quickly through his account and he talks a lot about, like, civil rights and, like, issues with racial justice. And so he, you know, brings it from like objective sources and stuff, but I decided to click on him as well, because I was like, this is sort of what I see on TikTok. It's like these more subjective sources who are giving their opinion.

Notably, Eric described this account as a “more subjective source” using “objective sources” based on his assessment of the profile. In this search for “more common” TikTokers, Eric also found a video from Joel Bervell, who he described as “a political commentator, like a guy who just, like, talks about politics, mostly like civil rights issues on TikTok.” Bervell’s post had “a screenshot he was talking over of another ABC News or NBC News post or whatever.” So Eric decided to pause and watch Bervell’s post. Eric explained this choice, “I was like, all right, [Bervell]'s basing it off a news alert, so I'm gonna watch it. And it was just him talking about also in 2023 how Florida banned AP African American studies.” After finding some political commentary from TikTok users, Eric switched over to Instagram and “went straight to sources” he trusted – familiar news accounts like NBC News, *The New York Times*, and *the Washington Post*. At one point, he followed the directions on an Instagram post from NBC News to find the

“link in bio” and opened up the full article to read it. Eric checked Truth Social for information, too, but reported that he could not find anything relevant.

These searches led Eric to find news stories that he circulated and discussed in the workshop. In particular, he found news stories and commentary about federal executive orders (e.g., the January 2025 “Ending Radical Indoctrination in K-12 Schooling” EO) and specific state policies (e.g., Florida’s “Don’t Say Gay” law). Eric drew on a news story about a Florida teacher in the whole group discussion:

It was the Florida teacher who got let go for calling their student by their preferred name, which isn't exactly what we're talking about, but the teacher got let-go because they didn't follow the law, and they were like, I'm not following this law. And so I was like, yeah, I'd do that. So that is one example of what I saw. If I somehow was in a state that you can't, you know, call your students by their preferred name or pronouns. You know, now I wouldn't follow that.

In this example, Eric shared a model for how he might protest a divisive concepts law. He believed that he too would call a student by their preferred name or pronouns regardless of the law. Eric’s approach to researching and discussing an issue on social media reflected some of the habits that he practiced in his everyday life: Eric searched for and consumed legacy news stories and political commentary about teachers who shared his liberal values and then reflected on how he could use these teachers as models for his actions if he found himself in a school context with a ban on “divisive concepts.”

Teaching with Social Media Platforms

Eric believed teachers should use social media with secondary students because “finding news on social media is inevitable at this point.” In the debrief of the workshop, Eric asked his

peers, “Are we going to just say, like, oh, we're not going to include social media in our classroom? Let's just stick to what we know and let them do that outside of school? Or are we going to teach them how to navigate that more effectively? And so I think it's important to meet them where they are.” While this sentiment to “meet students where they are” was commonly held among the group, Eric also voiced shared reservations about whether his current students should open their own social media feeds in class. He said he likely would keep his middle schoolers off their phones but was clear that he wanted to expose students to the different types of sources they would encounter on social media, from “just a random guy on Twitter” to “an op-ed from a more left-wing news organization” or some news “article from the Associated Press.” Eric thought that this exposure would help “a certain younger demographic” who take “so many things at face value” on social media. Eric wanted to teach students to recognize “the different sources they will encounter and how much you can trust each one.” This meant teaching what is “actual journalism:” news stories and op-eds that are “trustworthy” but “just biased.” He wanted his students to know that they can “trust a TikTok from NBC News a little bit more than whatever is being said on your favorite podcast.”

Katelyn: A Scroller for Entertainment

While Katelyn, an undergrad PST, said that most of her news came from TikTok, the separation between news and entertainment was blurry for her. Katelyn often “forgot that there’s actual, like, official news sources on social media, and especially on TikTok.” Rather than seeking out the news, she was one of ten PSTs to describe her use of social media as primarily “for my entertainment.” When she did engage with the news, she said “it’s like in an entertaining way.” In her interview, Katelyn shared that most of this news came “secondhand, not articles, but people talking about things secondhand or they’ll have the original document or a clip from

the original video behind them and they're talking about it in their own words.” She added that whether or not she consumed these kinds of videos about current events was “just based on what [she had] the attention span to watch.” Therefore, while Katelyn was not averse to finding sociopolitical content on social media – indeed, TikTok was her main source of news – her social media use was primarily motivated by her enjoyment of the posts rather than trying to stay up-to-date on current events.

Engagement during the Workshop in Core Practice of Participatory Politics

When asked to engage in research about the central question, Katelyn tried to find familiar sources she found credible. In particular, she chose to consult two influencer accounts on TikTok that she had grown to trust: Mrs. Frazzled (@mrs.frazzled; Arielle Fodor) and @analyticaliowan. In her interview, Katelyn described why she chose to consult Mrs. Frazzled, a former teacher turned influencer:

The way that [Mrs. Frazzled] speaks seems very straightforward and reliable. She's obviously biased towards anti-Trump policies. But she seems to be basically speaking facts of, this is what this thing said, and this is what this thing would mean. And it's stupid and it's ridiculous, but this is what it means. And just like... Watching her videos over the past couple of years, I haven't seen any massive red flags in my perspective from what she says, the perspectives that she holds. So I tend to trust her and at the very least, I trust her to inform me of what's going on.

Katelyn shared these thoughts with her small group as she circulated the information she found, explaining that Mrs. Frazzled's account was approachable because she shares “what's happening in very layman's terms” and she's “very passionate about it.” Even though Mrs. Frazzled's videos were “really stupid,” Katelyn said she trusted her, because “it seems like she knows a lot

and she understands a lot about what's going on politically.” Accounts like Mrs. Frazzled helped Katelyn deal with the “information overload” on TikTok. When content creators showed raw documents and interpreted them in their videos, Katelyn said she could start “to get a full understanding of the policies and stuff.” For these reasons, Katelyn felt like using TikToks from Mrs. Frazzled was a good place to start to understand the issue of divisive concepts laws in schools. Beyond her reliance on Mrs. Frazzled, Katelyn also highlighted the videos she saw of teachers who tried to mix entertainment with their political commentary. Katelyn told her small group that she “[got] a lot of skits that just [show], like, what different policies would look like in the classroom or like almost kind of making fun of them. [Teachers are] just being like, this is really, like, what you expect us to do right now? Or like, this is your brilliant policy but like this is what it looks like? This is ridiculous.” Rather than engaging with legacy news sources, Katelyn’s research and circulation of sources was focused on influencers or teacher accounts that offered commentary on education policies. Six other PSTs also used accounts from content creators during their research.

Like her peers, Katelyn used the workshop discussions to critique algorithmic environments. Katelyn said it was hard to find alternative perspectives, even when she was trying to find them, because her algorithms were just “going along with what [she] believe[d].” Katelyn added, “there's definitely teachers out there who, like, are in love with these policies, but I haven't seen any of that. It's a lot just, like, this is what's happening right now! Can you believe this? Or silly little skits. I get a lot of silly little skits and that's honestly how I learn a lot of things.” The experience of searching on social media made Katelyn question how people can ever understand each other’s perspectives. She argued, “everybody thinks they know everything and it's like actually everybody has a different idea what's going on and everybody's interpreting

it differently. It's, like, I have no idea what's even happening.” Even though she thought that the commentary of influencers on social media helped her understand political issues, her experiences in the workshop led Katelyn to doubt that social media platforms were the best way to find information about current events like the passage of divisive concept laws in the U.S.

Teaching with Social Media Platforms

Katelyn saw an avenue to connect social media to the skills she was already teaching her students with historical documents, like sourcing and corroboration. Katelyn felt that inquiring about social media would help her students be “able to apply it to their everyday lives” and “help them be a better person overall.” Yet, when asked directly about whether she would lead an inquiry that used social media platforms, she said “absolutely not.” Six other PSTs took the same stance. While she might ask students to evaluate social media posts, Katelyn told her group that she would not try to teach with live social media feeds because it would lead to “a lot of chaos” or the activities “would have to be changed so severely that it would be completely different.” Katelyn added, “When you provide a lot of scaffolding, they don't take it as this is something [they] can apply outside of the classroom.” Katelyn highlighted a tension she was feeling about embedding social media sources in the classroom: the more scaffolding and modifications that she made, the more her classroom activities would stray away from an authentic experience navigating social media algorithms.

Ryan: An Anti-Social Media Critic

Like Katelyn, Ryan, a master's teacher certification student, acknowledged that he encountered the news on social media, but he mostly used apps like X and Reddit as a form of entertainment. Ryan stood out for his intense distrust of the information on social media platforms. When asked about the role social media played in his consumption of news and

current events, Ryan explained, “I am so hesitant to trust anything online by anybody, even if it's something that seems like it would fit my worldview.” During the workshop debrief, Ryan told a story about a friend who shared information from TikTok with him. When he found out that his friend had shared a TikTok that made false claims, Ryan said he could not trust his friend anymore. With this mindset about the information one finds on social media, Ryan described the research process in the workshop as “the exact opposite” of how he tried to consume news in his everyday life. He added, “I don't start with social media. In fact, I try to avoid it when trying to get information like this.” Ryan expressed that the source of this deep skepticism about social media content was a fear of being wrong and spreading misinformation in the classroom and elsewhere:

I'm just so-- I just wanted to be-- I just don't wanna be wrong. Cause it's gonna be the worst thing if I'm wrong. I have, like, a fear that I'm gonna see something online. And this is like a social fear. When I see something online, I'll think it's true. I'll say it in front of kids. And then later I'm going to figure out it's not actually true. And I feel so bad because I just misled like a bunch of people that look to me as, like, a good source of information.

With this anxiety about the information he may consume on social media, Ryan took a definitive stance against the idea of doing “research” on social media throughout the workshop.

Engagement during the Workshop in Core Practice of Participatory Politics

Of all the PSTs, Ryan was the most opposed to engaging in core practices of participatory politics on social media. He described the opportunity to research information using a social media app as “the worst 15 minutes of my life. The worst 15 minutes of my day.” After he scanned sources on X, Reddit, and Instagram, he said, “I found, like, nothing. I found nothing

useful to me other than personal statements, opinions.” For Ryan, these posts were not credible sources he wanted to consider. In his interview, he explained, “Someone's opinion is nice to understand. But like...I'm not personally like getting random advice from people on the internet, or like [their] personal feelings either – I don't know what [they] have experienced. The subject matter, I don't even know. I don't even know [them]. I don't know what [their] credentials are. I don't know anything about this. So that's, that's like a no go for me usually.” With this mindset, Ryan passively participated in the workshop and ultimately rejected its premise: He believed social media platforms were not an avenue to become more informed about an issue. In the discussion of the central question, Ryan suggested he would try to teach “as normal” and make sure he spoke the truth. If he faced pushback about his teaching, he said he would “lawyer up” and “leave the school district,” but these conclusions about the central question did not appear to be informed by any sources from his research on the issue during the workshop.

Teaching with Social Media Platforms

Consistent with his stance throughout the workshop, Ryan was against the idea of using social media platforms in his classroom. Ryan said he liked “using modern technologies” like Kahoot in the classroom and conceded that “it's foolish to ignore the new technologies coming about,” but he did not see a place for live social media feeds in his teaching. If he were to teach students to evaluate or analyze social media posts, he said he would print out the posts on paper, including a bunch of different comments. He suggested to his small group that students could make fake social media accounts for different world leaders throughout history or create a mock social media post to express their opinion on a contemporary issue. But ultimately, he wanted to teach his students to share in his skeptical stance toward all sources on social media:

I want to show [my students] how— It's hard to trust people online, that people lie all the time online. That's the thing I wanna get them away with. And I wanna show how, in an academic sense, you can't use social media. You can't, or the way the information's presented on social media, it's overwhelming, it's confusing, it is not direct. It's harder to corroborate with other sources. And I want to just expose them to that fact because if they continue on, if they finish— if you take AP classes, if we go to college or even out in the real world, you can't use these, you can't use what you see online to back up information that you want to tell other people. You need something a little more concrete than that.

Thus, Ryan took the strongest stance against social media: He not only wanted to avoid using social media platforms in his courses, but he also wanted to convince his students that social media sources were not legitimate forms of information for academic and civic life.

Discussion

This study explored how pre-service social studies teachers used social media to research, circulate, and discuss political information—as young people often do in their everyday lives. Social media environments allowed the PSTs to consult a diverse set of sources typical of social media platforms: legacy media organizations like ABC News, digital “new” media organizations like Brut America, and a variety of influencer accounts like Joel Bervell and Mrs. Frazzled. The PSTs reported that they chose to consult these accounts because they had learned to trust them, the accounts aligned with their perspective on the issue at hand, and/or they found the accounts entertaining. Yet, the PSTs often encountered and discussed many of the challenges of relying on social media companies for accurate and relevant information. They conducted keyword searches but did not readily find information that they were seeking. They encountered more and less credible sources alongside each other. They struggled to find more than one perspective on the

central issue. Thus, the inquiry process allowed the PSTs to experience and reflect on the affordances and shortcomings of using social media sources to engage in core practices of participatory politics.

The PSTs were divided about whether they would teach with social media platforms. All PSTs acknowledged that social media was relevant to their students and many considered showing their students social media posts that they pre-selected. However, Dan was the only PST who could imagine allowing students to use social media platforms in class. The PSTs' views on whether they should teach students with and about social media platforms were not necessarily aligned with their own reported social media behaviors. Some PSTs were actively enveloped in political discourse on social media while others consumed the news passively and used the apps for entertainment. Dan, again, was an outlier: He was the only PST who said he avoided the news on social media at all costs, despite being enthusiastic about teaching students with social media platforms.

This study affirmed that safety and civility are often valued by teachers in digital citizenship education (Garcia et al., 2020). While the PSTs largely used social media for news in their own lives *and* found value in the inquiry process we followed, they were overwhelmingly hesitant to teach students using social media platforms in class. PSTs like Katelyn were worried about the chaos that could ensue and those like Ryan did not want their students to be exposed to untrustworthy digital sources in his class. These sentiments are consistent with earlier findings that educators are inclined to prioritize safety and civility in digital citizenship education at the expense of information analysis and building civic voice/engagement (Garcia et al., 2020). The PSTs in this study similarly expressed a desire to prioritize safety and avoid risk because they feared what might happen when they used social media feeds with their students.

This study further showcased the tension between the educational possibilities that social media technologies can afford and the realities of social media as they exist. A more scaffolded workshop with pre-selected social media sources or a closed social network— like opportunities in prior studies (e.g., McGrew & Breakstone, 2023; Middaugh, 2019; Mirra & Garcia, 2020) – may have provided better opportunities to learn about an issue. With these scaffolds, the PSTs may have learned more about how teachers are navigating divisive concepts laws or may have practiced deliberating the central question with more substantive evidence. As the PSTs consistently noted, there were definite limits of engaging in “research” on social media platforms. Yet, scaffolding the research process to ensure that PSTs accessed credible, relevant sources would have removed the PSTs from the complexity of the authentic environments where students so frequently find political information.

In turn, the PSTs’ discussions about the shortcomings of social media feeds provided an educational possibility of its own: the opportunity to unpack the affordances and the limitations of the contemporary media environment with their peers. When the PSTs confronted challenges that they knew were characteristic of online environments – like the power of algorithms to shape the information they consumed – they were able to discuss how civic actors should engage with political information online. This opportunity within a teacher education context may promote the kind of *technoskeptical* disposition that technology education scholars have advocated for (Pleasant et al., 2023). Pleasant et al. (2023) argued that teachers should habitually ask critical questions about the material costs and benefits of educational technologies and those that profit from them. While social media platforms are not typically considered educational technologies, everyday civic actors use social media apps as such. Thus, the

workshop in this study provided one model for how PSTs can ask, critique, and reflect on the technoskeptical questions with the platforms that students often turn to for political information.

The tensions that teachers faced in this study prompt questions about what teaching students to engage in core practices of participatory politics should look like with digital media as it exists in 2026. Kahne et al. (2016) conceptualized core practices of participatory politics when scholars and educators had more optimism about the power of digital media to create more democratic and just societies (e.g., Conner & Slatery, 2014; Jenkins & Lopez, 2018). Subsequent research and events, such as the rise of anti-democratic movements across the world and global crises shaped by digital disinformation campaigns, have thwarted much of this optimism (e.g., Flores-Yeffal et al., 2019; Kuo & Marwick, 2021; Little & Richards, 2021; Tynes et al., 2024). At the same time, the technologies have changed. Social media environments now have endless feeds, shaped by powerful algorithms and vertical video. The attentional resources required to learn about and discuss current issues are often exploited by social media platforms who want to sell advertisements (Kozyreva et al., 2023). While core practices of participatory politics remain essential for democratic participation, educators must contend with these realities as they plan to teach students how to navigate the political and media environment.

The PSTs in this study largely agreed with Kahne et al.'s (2016) argument that teaching students to engage in participatory politics is an essential goal of civic education. Yet, the PSTs had different – and sometimes contradictory – answers about *how* we should engage in and teach these core practices and whether we should engage students in social media environments at all. Through his experiences engaging in political discourse online, Dan chose to largely reject social media use in his own life. Yet, he believed social media was the “new public square” and was the most fervent advocate of students using social media platforms to learn about politics in the

classroom. A self-described left-wing ideologue, Eric wanted to teach his students about credible sources, including that they should not trust what they see online at face value and demarcating opinionated sources from those that reported the news. At the same time, his own news consumption consistently blurred the lines between news and political commentary in ways that he enjoyed. Katelyn predominantly used social media for entertainment but still relied on the platforms for her news. While she said she would never teach with social media, she liked that her news could be filtered through content creators that made the “information overload” more manageable. Finally, Ryan used social media in his everyday life but rejected the idea that civic actors should expect to become more informed through social media sources at all.

Which of these approaches – or a combination of them – would best prepare these teachers and their students for informed citizenship in a world dominated by political discourse on social media? It is not clear. In their young adulthood, these teachers reached different answers about how much time and attention they should devote to consuming and circulating the news on social media platforms. They had different beliefs about whether teaching their students to use social media was healthy for them. Should we encourage young people to abstain altogether like Dan chooses to do? Or observe the discourse online to stay informed about the debates in the “public square” like Eric? Should young people seek new sources of media that make the information overload more manageable like Katelyn? Or disregard the idea that social media can help inform their civic choices like Ryan? *Or* should we rely on some other approach to engage in participatory politics on our social media feeds? Education research should interrogate how teachers and students can develop healthy “news diets” (e.g., Happold et al., 2025) that help them become informed, but not overwhelmed by (McLaughlin et al., 2023) or prone to avoid (e.g., Edgerly, 2022), information about politics. Likewise, future research should

explore how sources of “infotainment,” like those some PSTs consulted or expressed a preference for, shape young people’s engagement with and understanding of current events and issues (Delli Carpini & Williams, 2001; Postman, 1985).

Limitations

The findings in this study should be understood in the light of its limitations. First, this study focused on a modest number of pre-service social studies teachers in one university teacher education program. Almost all of them identified as White. A more racially and ethnically diverse group of pre-service teachers and those in other disciplines or contexts may plan to approach teaching about or with social media differently. In particular, future research should seek to understand how PSTs plan to use social media sources when they plan to work in states with limits on their ability to teach “divisive” issues or restrictive cell phone bans. Second, I intentionally focused on PSTs who likely grew up with access to social media apps. Pre-service or in-service teachers who are older may have different social media habits or comfort with using social media platforms in their classrooms. Future research should probe how a more diverse group of teachers across generations use social media sources in their classrooms. Third, to assess how the PSTs in this study used social media, I relied on their self-reports of their habits. Their reports may not accurately reflect the PSTs’ actual habits in their everyday lives. Finally, the pre-service teachers in this study were anticipating what they may do in the future. I did not collect any data that spoke to their teaching practices in actual classrooms. Future studies should consider how teachers engage in core practices of participatory politics with social media in social studies classrooms and the benefits and challenges of such instruction.

Implications and Future Research

While core practices of participatory politics are still relevant and enacted by teenagers every day, social media has changed significantly since the core practices of participatory politics were conceived for online environments in 2016. As AI-generated content promises to further alter these environments, social studies teachers should consider how core practices of participatory politics should be taught and the role of digital platforms in this teaching. Teacher educators can support social studies teachers to engage with the affordances and limitations of social media platforms themselves and develop ideas about how to teach students to use them for their consumption of news and current issues. As cell phone bans take hold across school districts and states, teacher educators can also support social studies teachers to keep considering how they should engage students in conversations about their use of apps outside of school. While cell phone bans are reasonable policies that can promote student learning, teachers and teacher educators need to continue to reflect on the responsibilities to teach civic skills and dispositions that students need to use cell phone apps responsibly in their everyday lives. Finally, social education research should continue to explore what teaching students core practices of participatory politics looks like as social media platforms evolve. In particular, teachers – and all civic actors – need models for exploring sociopolitical issues online in a way that preserves our attentional resources.

Conclusion

Social media has transformed political discourse and movements for change in the last decade. Students often spend hours a day on these apps, and they can provide both opportunities for civic participation and exposure to anti-democratic content. If civic educators want to support students to not only be informed about contemporary issues, but also feel empowered to engage

in participatory politics, our classroom practices need to reflect the challenges posed by online ecosystems. Young people are likely to engage in the kind of inquiry process about civic issues in this study: They increasingly turn to social media apps for their news, learn about social and political issues, and then talk about them with peers. As young teachers also frequently receive information through such inquiries and want to prepare their students for a digital world, early career teachers need opportunities to reflect on what a classroom practice looks like that engages real social media sources about civic issues.

Chapter 5: Integration of Findings and Conclusions

My dissertation sought to better understand how teachers and students can investigate controversial public issues on the internet. Civic reasoning – or how any group of civic actors (outside of the family) decide what we should do (Lee et al., 2021) – increasingly depends on information filtered through algorithms on online platforms. The digital environments where we encounter and seek political information are epistemically unfriendly, making it hard to find credible information or trust that what we see is not designed to exploit our beliefs and identities (Chinn et al., 2021). Social media and search engines provoke outrage, spread mis- and disinformation, and promote our directional reasoning (Kahne & Bowyer, 2017; Kozyreva et al., 2020). The three studies in this dissertation explored how teachers and students can find credible sources and learn more about relevant civic issues even in digital environments that present so many challenges.

Article 1 focused on the classroom practices of teachers and students as they investigated a controversial issue with digital sources. While prior research (e.g., McGrew, 2021; Reynolds & McGrew, 2025; Wineburg & McGrew, 2019) suggested that the teachers and students may struggle to follow the most reliable processes during this inquiry – activating prior knowledge, then evaluating source credibility, and then close reading – the teachers supported students to follow this sequence. In turn, the students deliberated about the controversial issue by integrating their prior knowledge about social media with new evidence they collected from credible, digital sources. Thus, Article 1 reported on a model for classroom inquiries that followed reliable epistemic processes tailored to internet environments, aimed to respect students' personal resources, and taught strategies for identifying external, credible sources.

Article 2 zoomed in on the teacher preparation required to lead students through a controversial issue inquiry with digital sources. In particular, this study utilized design-based research to develop a workshop for in-service social studies teachers on leading discussions about source credibility in which students not only report what they learned from lateral reading but also share conclusions based on relevant personal resources. Prior research suggested that facilitating these discussions would be challenging for teachers (e.g., McGrew, 2021; McGrew & Byrne, 2022; Reynolds & McGrew, 2025). Teachers likely need practice to communicate two messages: first, that students' personal resources matter as they investigate controversial issues, but second, when deciding which sources to read to learn more, students need to focus on the *credibility* of sources rather than their personal agreement or familiarity with a source's message. Through a design-based research process, I found that teachers used a diverse set of facilitation moves to respond to students in representations of teaching practice. The professional development team encouraged some of these moves – like affirming students' personal resources and orienting them to lateral reading. Yet, the teachers also practiced facilitation moves the PD team had not considered, most notably direct critiques of students' personal resources. Further, I found that teachers needed support to track whether they were investigating the *central question* (e.g., Is further restricting gun ownership a valid response to concerns about public safety?) or the *source question* (e.g., Is *Time Magazine* a credible source on gun ownership and control?) with students. As analyzing a controversial issue and evaluating a source's credibility rely on different kinds of evidence, the teachers benefited from explicit opportunities to decompose these two kinds of investigations and the purposes of each.

Finally, Article 3 focused on how pre-service social studies teachers (PSTs) engage in core practices of participatory politics (Kahne et al., 2016) on social media and how they plan to

do so with their students. In this study, the PSTs used social media platforms to research a controversial issue relevant to their lives: How would you respond as a social studies teacher if you taught in a state with a “divisive concepts” law? The PSTs found a variety of social media sources that were typical of the contemporary media environment, such as legacy news outlets, new media organizations, and influencer accounts. Through this exploration, the PSTs also confronted challenges: They found sources of varying credibility, were frustrated with irrelevant results, and could not readily encounter multiple perspectives on the issue. While they thought teaching about political information on social media was a worthwhile endeavor, the PSTs were reluctant to engage students in doing so with actual social media platforms. Therefore, while the PSTs were able to explore core practices of participatory politics on social media apps in ways that helped them weigh the affordances and limitations of these activities, they generally felt doing so with their students would be too risky.

Each of these studies explored how young people can engage in civic reasoning informed by the kinds of diverse, digital sources that young people increasingly depend on. Engaging in source evaluation and close reading sources have long been a staple of disciplinary literacy in social studies education (Wineburg, 1991; Reisman, 2015; Seixas, 1998) and are a central component of social studies standards (NCSS, 2013). Recent research has documented how educators can update disciplinary literacy instruction for digital environments, in particular through the use of lateral reading (Wineburg & McGrew, 2019; McGrew, 2020). My dissertation extended this research to explore how teachers and students can build lateral reading into an inquiry into controversial issues: Students did not just evaluate digital sources (as prior work has done), but they read sources they deemed credible and deliberated about their central claims. Thus, my studies provided a model for how civic educators and researchers can engage in

disciplinary literacy practices tailored for the internet as they teach students to evaluate, read, and discuss credible digital sources about pressing issues.

Yet, civic reasoning never relies on external sources of information alone. Civic reasoning is inherently driven by our values and ethics (Lee et al., 2023; Stitzlein, 2021). Young people have personal experiences, background knowledge, and beliefs that help them learn, motivate their civic engagement, and should be valued in the classroom (Cohen et al., 2018; Lee et al., 2023; Nasir & Hand, 2008). While students of color have often been cast as apathetic about civic matters (e.g., Carnegie Corporation of New York & CIRCLE, 2003), the students in my dissertation were both motivated and insightful as they researched and discussed a challenging civic question. Even though these students were only middle schoolers, they voiced relevant prior knowledge and experiences about the issue at hand. They were capable of learning online evaluation skills that research has shown adults struggle to master (Addy, 2020; Breakstone, Smith, Connors, et al., 2021) and integrating multiple sources of evidence to deliberate a pressing, relevant issue. This work can serve as a reminder to educators that young people are capable and motivated to engage in complex civic reasoning when provided with the appropriate resources.

By working to honor students' personal resources and support students to develop essential skills for exploring external, credible sources, my studies aimed to bridge insights from research on disciplinary literacy and resource pedagogies (Paris, 2012). Resource pedagogies are often cast as separate from more disciplinary practices in social studies education. While resource pedagogies center students' personal resources from their lives outside of school, disciplinary literacy instruction can focus exclusively on external, authoritative accounts (Santiago & Dozono, 2022). The design of the controversial issue inquiries in the Digital Civic

Inquiry curriculum aimed to bridge this gap. Students were able to voice their existing beliefs and experiences while also learning essential disciplinary skills for the contemporary media environment. In these ways, these studies aimed to position students as both knowers *and* learners, honoring the rich resources that students bring to the classroom and the skills and knowledge that students can – and should – develop in social studies classes.

More research is needed to understand whether and how the design of the controversial issue inquiries in these studies indeed communicated to students the value of their personal resources and the importance of seeking external, credible perspectives. It is entirely possible that teachers and students did not internalize that civic reasoning is both built on our personal resources and informed by additional credible sources. Yet, as the internet makes it challenging to both trust digital sources or rely on our personal resources alone, these studies provide important models for how students and teachers can start to build an epistemically reliable inquiry process for the contemporary political and media landscape.

Implications

These studies have implications for teaching, curriculum design, and teacher education. First, my research raises questions about the role of teachers as gatekeepers of credible information for students in their classrooms. Of course, as past scholarship (e.g., Garcia et al., 2020) and the pre-service teachers in Article 3 recognized, teachers often, and understandably, are inclined to protect their students from the disinformation, hate, and discord on the internet by restricting what they can access. Yet, the internet that students regularly occupy in their lives outside of school is not subject to that same kind of gatekeeping. Even if teenagers are restricted from social media access, as some state, local, and school policies are trying to do (e.g., The

Florida Senate, 2024), students will still become adults who need to know how to navigate algorithmically-driven platforms.

I do not argue that students should have unfettered access to the internet. Yet, my findings suggest that students are capable of engaging in more authentic learning experiences in online environments than educators often provide. In particular, instead of providing students with a list of acceptable sources to consult, students should be given opportunities to decide which digital sources are credible enough to read. In the course of a controversial issue inquiry or a research project, students can learn to use strategies like lateral reading to identify sources that are not credible enough to be worthy of their time. When appropriate, students can practice internet searches and lateral reading in scaffolded environments, like programmable search engines, before they use more complex platforms. In addition to using authentic digital platforms, teachers can engage students with digital posts and websites that are relevant to them and may spark emotional reactions. Doing so may help students learn that the information we encounter on the internet frequently elicits directionally-motivated reasoning. When educators use digital posts and websites that are relevant to students, they can help students notice their initial reactions and pause to evaluate their sources before they give attention to a text or video. In these ways, teachers can provide students with learning experiences that prepare them for civic reasoning on the open internet where teachers no longer serve as gatekeepers.

Second, teachers and curriculum designers can explore how teaching about the concept of credibility can help curb directionally-motivated reasoning. The teachers and students in Articles 1 and 2 learned to evaluate the credibility of sources using two questions: Is this source an expert on this topic? Are they likely to tell me the truth? While answers to these questions are subjective and can be debated, teachers and students can use these questions to focus their

attention on credibility rather than their own personal preferences. For example, in Article 2, the teachers relied on this shared definition of credibility to suggest responses like, “And does that fact make the source an expert?” or “Do you think there are credible people who we might disagree with?” In this way, the teachers could challenge students to think critically about the credibility of sources without necessarily challenging their deeply held views.

Third, conceptions of credibility can also help frame the different sides of controversial issue questions. Prior research on controversial issues has argued that issues are “controversial” if “people are observed to disagree” (Bailey, 1971, p. 29); if “reasonable” contrary views can be held (Dearden, 1981); or if they are “politically authentic” to debates in the public sphere (Hess & McAvoy, 2015, p. 168). The design team of the DCI curriculum used an additional criterion for deciding which issues to discuss in the classroom: Do sources that we deem to be credible have differing viewpoints on this question? In using this criterion, the curriculum did not need to define which views were exactly “reasonable.” Students also did not have to contend with “politically authentic” views advocated for by disinformation producers just because those issues had some public salience. Rather, students and teachers investigated questions that were debated by diverse, credible sources.

When given the opportunity to co-construct ideas about credible sources with a shared definition of credibility, the teachers and students in Article 1 decided which sources to read and which to disregard. For example, they decided to exclude a webpage from Meta. Even though Meta was an expert on social media, it was untrustworthy – it had a financial incentive to obscure the truth on the topic of social media’s impact on democracy. This process of deciding which sources are credible and thus worthy of our attention provides an alternative process for defining which political positions are debatable in the classroom. Students are still likely to

disagree about who is worthy of their attention, and of course, students themselves are credible actors with life experiences that they can voice in a deliberation. But, by inviting students into the process of negotiating which sources are credible, a teacher can be transparent about the questions and perspectives that are up for debate as they consider controversial issues in the classroom. This process not only can help teachers and students choose which perspectives they want to consider, but they can also prepare for future learning on the internet where civic actors need to constantly decide which sources to trust.

Choosing which controversial issues to discuss in the classroom based on what credible sources disagree about has some notable challenges, however. First, this approach is likely only useful for framing open inquiries into *contemporary* controversial issue questions. When teachers are considering historical questions with their students, they may need to include sources that students consider to be less-than-credible to represent an important perspective from the past. Further, as scholars have recognized (Gibson, 2020; Hlavacik & Krutka, 2021; King et al., 2018), it is not appropriate to deliberate issues of historical injustice and therefore, alternative discussion frameworks are better choices for the classroom. However, by interrogating which contemporary issue questions are debated by credible sources, teachers may be able to determine which questions related to systemic injustices are truly “open” and worthy of discussion (e.g., *not* whether climate change exists but how communities might create policies for climate justice). Second, internet sources are not always the most accessible way for students to learn more about controversial issues. The Project DCI team curated sets of digital sources with varying credibility to allow students space to practice evaluating which texts were worth reading. This process can be laborious and may require significant effort from teachers. Further, texts

from think tanks and newspapers are often written for an adult audience and may need to be modified to be accessible to younger readers.

Finally, these studies have implications for teacher education. The teachers in these studies participated in different kinds of teacher learning opportunities. The in-service teachers in Articles 1 and 2 had more years of classroom experience and were trained to lead a complex digital inquiry with 8th grade students. While their students were not freely scrolling on social media platforms, Jordan and Diego proved to be prepared to facilitate open internet research that helped their students deliberate with evidence from credible, digital sources. The teachers in Article 3, however, were not prompted to seek credible sources and were not extensively trained on teaching digital literacy skills like lateral reading. As a result, they were offered little support as they navigated social media environments and faced the same challenges that younger students often do. They encountered more and less credible sources, many of which had partisan messages. Some PSTs talked about “information overload” and sought sources that had accessible messages over those that were credentialed. When asked if they would teach students with or about social media environments, the PSTs were often intimidated and were inclined to avoid the risk. This discrepancy affirms that teacher education and classroom experiences matter – teacher educators can likely make a difference in helping teachers prepare to investigate pressing issues on the internet.

Future Research

Future research should consider how these insights extend to online inquiries into controversial public issues in other classrooms and contexts. Articles 1 and 2 were premised on the idea that it would be challenging for students to reserve their personal beliefs and experiences for discussions about the controversial public issue. I anticipated that students’ personal

resources would be prevalent when students were learning to evaluate sources. In reality, the students' personal beliefs did not audibly bias their reasoning about which sources were credible enough to read. Therefore, future studies should seek to understand how learning to read laterally in the context of an inquiry into a relevant issue supports or creates challenges for student learning. In particular, future research can explore in greater depth how students used lateral reading to sort more from less credible sources in the middle of the inquiry. In addition, the topic of social media and democracy may not have been particularly emotion-provoking for students. The DCI curriculum has other topics, like gun control and climate change, that may elicit more personal beliefs and experiences from students. A future research study should explore how students in other classroom contexts engage in a similar inquiry with additional political topics.

Further, the Digital Civic Inquiry curriculum used in Articles 1 and 2 was designed such that it was possible to investigate the sources behind articles through lateral reading. Yet, in our everyday lives, it can be challenging for internet users to research each source they encounter. Sources may not have Wikipedia pages or have not been featured in news coverage, making investigating their credibility on external, credible websites inaccessible. As the pre-service teachers demonstrated in Article 3, this can be especially true on social media where sources do not always represent institutions with a substantive digital footprint. Therefore, additional curricula, teaching strategies, and research studies should focus on how students can evaluate claims they encounter when information about sources are not readily accessible (McGrew & Reynolds, 2026). Such support may help students develop the skills to judge whether social and political content is accurate or plausible (Lombardi et al., 2014).

More research is needed to follow teachers into their classrooms to see the impacts of teacher education opportunities in practice. While Article 1 explored the high-level facilitation

from one activity to the next, more research is needed to understand teachers' moment-to-moment facilitation of a digital civic inquiry. For example, future studies can investigate how teachers lead and respond to students in source credibility discussions like those the teachers prepared for in Article 2. In that study, teachers only suggested and rehearsed their responses in the context of a professional development workshop. This research could shed light on the ways that teachers affirm or critique students' use of personal resources and what kind of impact such responses have on student discourse. Likewise, the teachers in Article 3 only described how they anticipated they might use social media in the classroom. Further research can investigate if and how they actually do so and whether such instruction supports their students to engage with core practices of participatory politics in social media environments.

Finally, more research is needed to investigate the role of students' personal resources as they engage in civic reasoning. As noted above, the students in Article 1 appeared to bracket their personal resources related to social media and democracy in the middle of the inquiry when they were evaluating and reading sources. Yet, while they did not voice personal resources in a way that revealed directionally-motivated reasoning, students may have engaged in directionally-motivated reasoning without it being captured by the data. Future research should investigate the role directionally-motivated reasoning plays in their evaluation of sources and what, if any, impact that has on their final deliberations. Article 2 generated questions about how teachers should respond to students as they are evaluating digital sources, such as how teachers can or should critique students' personal resources as they are trying to discourage students from engaging in directionally-motivated reasoning. Teachers with strong relationships with their students may be able to critique their directionally-motivated reasoning in ways that do not discourage students from sharing their ideas in the future. Yet, more research is needed to

understand how teachers can support students when their personal resources emerge during their digital source evaluations.

Article 3 also raised questions about the role of directionally-motivated reasoning among teachers as they evaluate political information online. As documented in prior studies (e.g., Clark et al., 2020), PSTs in Article 3 were transparent about gravitating toward social media sources that agreed with their perspectives. If teachers use social media in the classroom, future studies should explore how both teachers and students aim to curb or lean into their directionally-motivated reasoning about which sources to trust. This research should explore how consumption of ideologically-aligned sources is related to their understanding of current events and tendencies to become overwhelmed by or avoid the news.

Conclusion

Many people – of all generations – are seeking to understand what informed civic action that builds and sustains a pluralist democracy can look like in the United States in 2026. The internet provides an abundance of information but also presents significant challenges.

Algorithms capitalize on our emotions and prioritize posts that affirm existing beliefs (Kahne & Bowyer, 2017; Kozyreva et al., 2020). Savvy conspiracy theorists and disinformation producers aim to exploit existing inequalities and spread division (e.g., DiResta et al., 2019).

Disinformation and hate reverberate through our communities and echo in our schools (Rogers & Kahne, 2022). We all, adults and young people alike, are vulnerable to being duped by digital stories that *feel* credible, that we hope to be true, or that align with our subjective lived experiences. While many questions remain and the challenges to an informed citizenry are abundant, the students and teachers at the center of my dissertation are starting to chart a different vision for what it can look like to navigate our political and media environment.

Educators can play an essential role in guiding students to harness their civic expertise and expand their capacities for civic participation through digital media literacy education. In turn, this research contributes to a new kind of civic education, one that prepares young people to research online, take action in their communities, and work together to build a true pluralist democracy.

Appendices

Appendix A

Project DCI Professional Development Program (Article 1 and 2)

Focal Teaching Practices	
Summer Institute 1 (July 2024)	
Day 1	● Evaluating online information through lateral reading ● Facilitating deliberations about a question about a controversial public issue (CPI) ● Participating in a full digital civic inquiry
Day 2	● Building student knowledge about civic concepts and CPIs ● Assessing students' initial views on a CPI ● Evaluating the credibility of online sources ● Using click restraint to choose search results ● Modeling lateral reading
Day 3	● Facilitating discussions after lateral reading with teacher discussion moves ● Close reading credible sources for arguments and evidence ● Affirming students' personal resources and orienting students to reason about the credibility of sources through lateral reading
Day 4	● Facilitating a deliberation about a CPI
Day 5	● Building student knowledge about civic advocacy ● Supporting students to make plans to take informed action
Coaching Sessions (2024-2025 School Year)	
Session 1	● Teaching lateral reading ● Recognizing and responding to weak strategies for assessing source credibility
Session 2	● Introducing a question about a CPI
Session 3	● Leading discussions after lateral reading when students use personal resources to evaluate the credibility of sources
Session 4	● Supporting students to use evidence from online sources in deliberations

Session 5	● Planning for and taking informed action with students
Summer Institute 2 (August 2025)	
Day 1	● Evaluating online information through lateral reading ● Facilitating deliberations about a question about a controversial public issue (CPI) ● Participating in a full digital civic inquiry
Day 2	● Building student knowledge about civic concepts and CPIs ● Assessing students' initial views on a CPI ● Evaluating the credibility of online sources ● Modeling lateral reading
Day 3	● Facilitating discussions after lateral reading with teacher discussion moves ● Affirming students' personal resources and orienting students to reason about the credibility of sources through lateral reading ● Close reading credible sources for arguments and evidence ● Using click restraint to choose search results
Day 4	● Facilitating a deliberation about a CPI
Day 5	● Building student knowledge about civic advocacy ● Supporting students to make plans to take informed action

Appendix B

Graphic Organizer from Lesson 1 of Digital Civic Inquiry on Social Media and Democracy

(Article 1)

People with different ideas or beliefs

Strengths: How does social media HELP us to talk to people with different ideas or beliefs?	Weaknesses: How does social media MAKE IT HARDER to talk to people with different ideas or beliefs?

Good information

Strengths: How does social media HELP us find good information?	Weaknesses: How does social media MAKE IT HARDER to find good information?

Trust in each other

Strengths: How does social media HELP us build trust in other people?	Weaknesses: How does social media MAKE IT HARDER to build trust in other people?

Appendix C

Civic Inquiries on Social Media Pre-Survey (Article 3)

General Information

Q1: Name _____

Q2: Which degree program are you enrolled in?

- ☐ Undergrad (1)
- ☐ IMCP (2)
- ☐ MCERT (3)

Q3: How old are you? _____

Q4: What is your race or ethnicity?

- ☐ American Indian or Alaska Native (1)
- ☐ Asian or Asian American (2)
- ☐ Black or African American (3)
- ☐ Latino/a/e (4)
- ☐ Native Hawaiian or Pacific Islander (5)
- ☐ White (6)
- ☐ Self-Identify (7) _____

Q5: What gender do you use to describe yourself?

- ☐ Male (1)
- ☐ Female (2)
- ☐ Non-binary / third gender (3)
- ☐ Prefer not to say (4)

Q6: What grade(s) and course(s) did you teach as part of your main placement during your internship?

Social Media Habits

Q7: Do you use social media platforms?

- ☐ Yes (1)
- ☐ No (2)

Q8: Do you use any of the following apps or sites?

	Yes, I use this app or site. (1)	No, I do not use this app or site. (2)
X (formerly Twitter) (1)	☐	☐
Instagram (2)	☐	☐
Facebook (3)	☐	☐
SnapChat (4)	☐	☐
YouTube (5)	☐	☐
Reddit (6)	☐	☐
TikTok (7)	☐	☐
WhatsApp (8)	☐	☐
Threads (9)	☐	☐

Q9: Which social media app(s) do you use most often?

Q10: Thinking about the sites or apps you use, about how often do you visit or use...

	Almost constantly (1)	Several times a day (2)	About once a day (3)	Several times a week (4)	Less often (5)
X (formerly Twitter) (1)	☐	☐	☐	☐	☐

Instagram (2)	☐	☐	☐	☐	☐
Facebook (3)	☐	☐	☐	☐	☐
SnapChat (4)	☐	☐	☐	☐	☐
YouTube (5)	☐	☐	☐	☐	☐
Reddit (6)	☐	☐	☐	☐	☐
TikTok (7)	☐	☐	☐	☐	☐
WhatsApp (8)	☐	☐	☐	☐	☐
Threads (9)	☐	☐	☐	☐	☐

Q11: Do you regularly get news or news headlines on any social media sites or apps? By news we mean information about events and issues that involve more than just your friends or family.

- ☐ Yes (1)
- ☐ No (2)

Q12: If you answered, yes, which social media sites or apps do you regularly get news or news headlines from?

Q13: Thinking about the sites or apps your students use, about how often do they visit or use social media sites or apps?

- ☐ Almost constantly (1)
- ☐ Several times a day (2)
- ☐ About once a day (3)
- ☐ Several times a week (4)
- ☐ Less often (5)

- I don't know (6)

Q14: Do your students regularly get news or news headlines on any social media sites or apps? By news we mean information about events and issues that involve more than just your friends or family.

- Yes (1)
- Maybe (2)
- No (3)
- I don't know (4)

Q15: Please briefly explain your answer to the previous question.

Q16: What social media habits, if any, do you hope your students develop in social studies classes?

Q17: Would you use social media posts with your students to learn about and discuss a controversial issue?

Follow-up Interview

Q17: After the workshop, would you be willing to be interviewed for a follow-up interview? Interviews will take 20-30 minutes, will be conducted on Zoom or in-person (depending on your preference), and will be required to be audio recorded.

- Yes (1)
- No (2)
- Other (Please Explain) (3) _____

Appendix D

Civic Inquiries on Social Media Workshop Discussion Protocol (Article 3)

1. Using a scale of 1 to 5 where 1 expresses strong disagreement and 5 expresses strong agreement, use your fingers to show me how much you agree with the following statement: _____.
2. What evidence from social media sources or from your own lives supports the statement _____?
3. What evidence from social media sources or from your own lives challenges the statement _____?
4. What arguments or evidence are most compelling to you as you think about the issue?
5. How might you take action to support your position on this issue, if at all?

Appendix E

Civic Inquiries on Social Media Workshop Semi-Structured Interview Protocol (Article 3)

General teaching

1. Tell me a little bit more about yourself. How was your internship experience so far this year?
2. What motivated you to become a social studies teacher?

Questions about social media sources and the workshop

3. What role does social media play in your consumption of news and current issues?
4. How would you describe your experience in the workshop? Was there anything exciting about it? Was anything challenging?
5. Can you describe your process of investigating the central question during the workshop? How did you approach your research?
6. Can you tell me about some of the sources you used during the workshop?
 - a. Why did you choose those sources?
 - b. Choose 1-2 interesting sources the participant used and ask them why they chose to use those sources.
7. How did it feel to use social media sites to prepare for the discussion? What were the advantages or disadvantages?

Questions about how social media and teaching

8. What goals, if any, do you have for your students related to social media use? What would you hope to teach them?
9. Would you engage in an inquiry like the one we did today with your students? Why or why not?
 - a. If so, what might you change?

Closure

10. Are there any other reflections or thoughts you have about this experience or teaching with social media sources that you'd like to share?

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