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Guidelines for Manuscripts

Aims and Scope

The Pennsylvania Council for the Social Studies seeks to publish manuscripts in the *Journal* that focus on any of the following:

- Creative ways of teaching social studies at the elementary, secondary, and higher education levels
- Research articles
- Explanations of new types of materials and/or equipment that directly relate to social studies teaching, particularly those developed and/or implemented by teachers
- Explanations of teacher developed projects that help social studies students and teachers work with community groups
- Reviews of books and other media that are relevant to the teaching of social studies
- Analysis of how other academic disciplines relate to the teaching of social studies

Instructions for Authors

All manuscripts must adhere to the following formatting guidelines. Manuscripts that do not meet the guidelines will be returned to the author without going out for peer review. The editors of *Social Studies Journal* accept submissions on a rolling basis. However, calls for manuscripts are issued for both regular and special issues.

- Type and double-space submissions using 12-point font and one-inch margins
- Include any figures and/or images at the end of the article
- Authors are responsible for obtaining copyright permission for all images

- Average manuscript length is between five and fifteen pages, though exceptions can be made on a case-by-case basis
- Follow guidelines of the current *Publication Manual of the American Psychological Association*
- Do not include author name(s) or other identifying information in the text or references of the paper
- Include a separate title page that contains the title of the article, author(s) name(s), institution(s), and email address(es)
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- Papers must be submitted as Word documents to the editors at: editors.ssj@gmail.com

Journal Information

Social Studies Journal is a biannual publication of the Pennsylvania Council for the Social Studies. The *Journal* seeks to provide a space for the exchange of ideas among social studies educators and scholars in Pennsylvania and beyond. The editors encourage authors both in and out of Pennsylvania to submit to the *Journal*.

All manuscripts go through a blinded peer-review process. In order to encourage and assist writers, the reviewers make suggestions and notations for revisions that are shared with the author before papers are accepted for final publication. The editors encourage authors in both K-12 and higher education settings to consider submitting to *Social Studies Journal*.

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From the Editors

We are excited to share the spring, 2019, issue of *Social Studies Journal (SSJ)*, a publication of the Pennsylvania Council for the Social Studies. This issue includes timely pieces relevant for scholars and practitioners of social studies alike.

We are especially thrilled that this issue features an invited piece by leading social studies scholar J.B. Mayo, Jr. Dr. Mayo's article helps teachers and scholars to understand and deconstruct the gender binary in social studies. The piece examines how students might be engaged in a study of two-spirit Indigenous people to broaden their understanding of gender and help create more inclusive school environments.

The two pieces that follow address how social studies educators can (and must) engage in teaching about our climate. Mark Kissling and Jonathan Bell report their findings from a large-scale survey of how PA social studies teachers think about and teach climate change. We are eager to include this important piece in our journal, given that the primary audience of SSJ is also the sample for their study. R. Zackary Seitz and Dan Kruta challenge readers to deeply consider their knowledge about recycling and its long-term sustainability. They provide a way to teach about recycling with complexity using the NCSS C3 Framework.

Social studies educators have a challenging task determining *what content to teach*, given the breadth, depth, and imperative of our subject. Rebecca Mueller, Lauren Colley, and Emma Thacker explore a tool for encouraging preservice teachers to carefully consider their content choices. This

article has implications for teacher education and in-service teacher development, as content choices continue to be complex on our social contexts.

Jeremy Hilburn, Lisa Brown Buchanan, and Wayne Journell investigate teaching contentious political issues, specifically DACA, through documentary film. The authors provide a strong background of literature and a practical tool for teaching using documentary film through the C3 Framework's Inquiry Design Model.

We are pleased that SSJ continues to publish important pieces about pressing social and political topics that must be centered in the teaching of social studies. Many thanks to our authors and to Michael Perrotti and Joseph Anthes for their support as corresponding editors.

As a final note, we are excited to announce that the 2020 volume of SSJ will consist of *one* themed issue that will publish in Spring 2020. The theme will broadly explore interdisciplinary approaches to teaching economics in social studies, and the issue will feature Jill Beccaris-Pescatore, Associate Professor of Economics at Montgomery County Community College as guest editor. Jill is a social studies teacher and economist who has been a regular attendee and presenter at NCSS and PCSS for many years. A call for manuscripts is forthcoming. We will continue to accept manuscripts outside of the themed issue on a rolling basis, as always.

Sincerely,
Jessica B. Schocker, Editor
Sarah Brooks, Associate Editor

ENGAGING TWO SPIRIT KNOWLEDGE AS A MEANS TO DECONSTRUCT THE GENDER BINARY

J.B. Mayo, Jr., University of Minnesota

Jacobs, Thomas, and Lang (1997) dedicated their seminal work on Two Spirit Indigenous people, in part, to the memory of Indigenous people who died as a result of homophobia, HIV/AIDS, and racism. It was their hope that their work would help decrease the number of deaths and personal hardships caused by these social ills. Over 20 years have passed since they expressed these sentiments in their dedication, and today, other social ills appear in the headlines: suicides by young people who identify as lesbian, gay, bisexual, transgender, or queer (LGBTQ); youth who are tormented because of their sexual orientation or gender expression; and the murders of queer and/or trans-women of color.

Since 2013, there have been 128 (reported) killings of transgender people in 87 cities across 32 states. Of the 128 individuals murdered, 80% were people of color. “All but one of the victims in 2018 were trans women, and all but one were people of color. That trend has been consistent for years” (Christensen, 2019; Human Rights Campaign). The April 18, 2019, death by suicide of Nigel Shelby, a 15-year-old freshman from Huntsville, Alabama (Marr, 2019), and the August 2018 suicide of Jamel Myles, a 9-year-old fourth grader from Denver, Colorado (Ducharme, 2018), highlight the on-going tragedies faced by LGBTQ youth and their families. They remind us of the not-so-distant spike of suicides by queer youth that grabbed national attention in 2010. Justin Aaberg from Minnesota (age 15), Billy Lucas from Indiana (age 15), Seth

Walsh from California (age 13), Tyler Clementi from New Jersey (age 18), Asher Brown of Texas (age 13), and Raymond Chase from New York (age 19) all chose death as a means to end their pain (Mayo & Sheppard, 2012). Though mainstream media commonly explained these young peoples’ deaths in terms of Internet safety, privacy violations, and the stress of living as a modern-day teen, the queer community and its allies believe strongly that these young men chose death over continually fighting the intense homophobia they faced each day in schools. Queer youth and those perceived as gay face harassment—physical, verbal, and emotional—in classrooms, locker rooms, school dining areas, and the buses that take them back and forth to school each day. The *Houston Chronicle*, for example, reported that Asher Brown had been bullied for over 18 months and that “kids accused him of being gay, some of them performing mock gay [sexual] acts on him in his physical education class” (O’Hare, 2010).

Social studies educators, teachers, and school leaders must engage strategies that prevent other young people from taking their lives. In concert with additional school and community efforts, embracing and teaching for a different type of social learning may alter the conditions that push young people toward self-destructive behaviors. The lessons learned from the traditional Indigenous worldview, including their understandings of gender and gender expression, may help straight-identified students

accept others for who they are, instead of trying to force conformity or tormenting their classmates who are perceived as “different.” Equally significant, these lessons provide teachers an opportunity to share *positive*, historical research on one facet of the larger LGBTQ community, which may also contribute to prejudice reduction and social justice in schools. Often, students who identify as queer never encounter examples of other LGBTQ people in their school lessons. For many, in fact, only negative stereotypes are presented as part of their daily existence at school. Therefore, the Indigenous teachings described here and lesson plans created from them will provide opportunities for these students to view themselves in a positive light, thus affirming a part of their identity that often remains hidden because of shame, fear, and/or ignorance. Consequently, all students—queer and heterosexual alike—gain access to an historical model where difference was valued, rather than persecuted, and where all individuals found a respected social role to play and a space to express themselves freely.

In what follows, I utilize primary and secondary historical research on Two Spirit Indigenous People and reference conversations with a teacher and high school students from an elective social studies class about their reflections on gender following a 10-day unit entitled “Social Identity, Personality, and Gender.” The goals of these conversations were to better understand the learning opportunities afforded by Two Spirit traditions, knowledge, and worldview and to explore ways that these opportunities can be incorporated into the social studies curriculum. The following review of the literature begins with an

overview of how gender has been covered in the social studies, followed by an examination of Two Spirit literature as it has evolved over time.

Key Terms

Before exploring the relevant literature, however, it is important that the reader have an understanding of various key terms that will be used frequently throughout this article. Though individuals have lived their gender(s) in many different ways over time, it is only in recent years that language has evolved that more precisely captures these various lived experiences. It is important to note that terms describing gender and gender expression are dynamic: new terms are created and recognized over time and especially by youth.

Cisgender. Cisgender is a term for people whose gender identity matches the sex that they were assigned at birth.

Gender fluid. This is a gender identity best described as a dynamic mix of the traditional boy and girl identities. A person who is gender fluid may most often feel like a mix of these two traditional genders, but may feel more boy on some days and more girl on others. Being gender fluid has nothing to do with which set of genitalia one has and is not related to one’s sexual orientation.

Gender nonconforming. One who is gender nonconforming exhibits behavioral, cultural, or psychological traits that do not correspond with the traits typically associated with one’s perceived gender. Sometimes referred to as *gender variance*, individuals who express their gender in this way do not conform to “expected” masculine or feminine gender norms.

Non-binary. Also known as *genderqueer*, non-binary is a spectrum of gender identities that are not exclusively masculine or feminine and are outside the gender binary of boy/girl. Non-binary people may express a combination of masculinity and femininity, or neither, in their gender expression. One who is non-binary may identify as having two or more genders (Two Spirit or pan gender), not identify as having any gender (agender or genderless), or may move between genders (gender fluid).

Queer. Like McCready (2004), I use the term *queer* as an umbrella term for lesbian, gay, bisexual, transgender (LGBT), and all others who claim a non-normative, non-heterosexual identity. The term *queer* as an identity marker does not resonate with everyone because it erases significant differences among gay men, lesbians, bisexuals, etc. In addition, *queer* encompasses both non-normative sexuality *and* non-normative expressions of gender, which is problematic for some, given that gender and sexuality are far too often conflated.

Gender Discussions in Social Studies

Discussions about *gender* issues in education throughout the latter half of the twentieth century have essentially entailed a focus on *women* and equity for them. In the social studies, gender has been studied with regard to textbooks (Clark, Ayton, Frechette, & Keller, 2005), curricular materials (Barton & Levstik, 2004), civic knowledge (Lutkus, Weiss, Campbell, Mazzeo, & Lazer, 1999), and the enforcement of gender scripts at school (Bickmore, 2002; Mayo, 2012), but little research has focused on teachers or pre-service teachers and how gender is

implicated in their beliefs and decision making about curriculum (Crocco & Cramer, 2005). Few discussions about gender within mainstream social studies publications address the existence (or even the possibility) of more than two genders or of the occurrence of multiple genders within one body (Engebretson, 2015; Mayo, 2012; Mayo & Sheppard, 2012; Sheppard & Mayo, 2013).

Only a few empirical studies have examined gender in pre-service social studies teacher education programs: Engebretson (2012) noted in her review of gender in social studies that these studies found shortcomings in courses, programs, and in the self-awareness of the future teachers themselves. Segall (2002) found that a group of Canadian secondary pre-service teachers believed that including women and minorities in the curriculum was important, but few could remember how these groups were addressed in their methods courses. In another study, researchers focused on students in a secondary social studies methods course and examined the plausibility that students would move from discriminatory beliefs to beliefs in equality. Looking at their students' autobiographies, Smith, Moallem, and Sherrill (1997) found that students were taught a range of beliefs centered on gender, race, and class throughout their lives. Some students had been taught gender equality, while others had been taught gender discrimination. Many of their beliefs were influenced by family members or experiences in and out of school. For those students who wrote about their beliefs shifting from discriminatory to equality for all genders or between races, the common event was a positive personal experience they had with someone who was different from

them. The vague understanding and lack of concrete examples demonstrated by the students in both studies is problematic for those teachers who want to connect multicultural curriculum and instruction to a diverse student body.

The absence and continued need for further research into connections between pre-service teacher beliefs and practices regarding gender has been noted by many scholars (Crocco, 2001, 2005; Hahn, Bernard-Powers, Crocco, & Woyshner, 2007; Hurren, 2002; Loutzenheiser, 2006; Sanders, 2002; Zittleman & Sadker, 2002). Hahn et al. (2007) specifically called for research on “pre-service teachers’ beliefs about gender and social studies and how those beliefs relate to their teaching” because there is a significant lack of research in this area (p. 353). Engebretson (2012) noted that mention of transgender people and issues centered on them did not appear in any of the literature she reviewed. She also noted that transgender, a category of gender, was often included in the sexuality literature, but was conspicuously absent from the gender literature within social studies where it has a legitimate presence. The body of research on gender in the social studies is woefully incomplete, yet there exists the frequent call for more research in this area. An examination of Two Spirit people within various Indigenous groups answers the call for further research and provides k-12 teachers new opportunities to uncover and simultaneously complicate the gender element, which may lead students and teachers toward a more nuanced understanding of gender beyond the binary of boy/girl.

From berdache to Two Spirit

Prior to 1990, the phenomenon now known as *Two Spirit* was referenced in research literature as *berdache* (ber-dash), a term first-contact Europeans imposed upon specific Indigenous people, and especially those identified as male, who appeared to them as outwardly feminine or in some cases androgynous. This term is no longer acceptable when describing the Indigenous people who displayed expressions of gender unfamiliar to early Europeans. Berdache is used here simply because it exists as part of the written, historical record. Texts also reference female-bodied individuals who performed more “masculine” roles, but male-bodied berdache were cited more frequently (Herdt, 1994; Jacobs, Thomas, & Lang, 1997). This term imposed European cultural norms (including a static, dichotomous understanding of gender) and limitations on a number of cultures that had a more fluid understanding of gender and the world around them. Lang (1997) wrote, “The acceptance of gender-variant individuals in Native American cultures can be seen as part of a worldview that realizes and appreciates transformation, change, and ambiguity in the world at large as well as in individuals” (p. 114). First-contact Europeans and those who followed them, however, chose only to see perverse sexual practices and expressions of gender that they could not understand or accept. Therefore, countless gender-variant individuals were slaughtered, and their ceremonial roles summarily condemned.

The term *Two Spirit* refers to the more nuanced recognition and understanding that some individuals are born with the presence of both a feminine

and a masculine spirit within their individual bodies. Anguksuar (1997) reports that the term originated from the Northern Algonquin dialect and gained widespread acceptance among many Indigenous groups at the Third Annual Spiritual Gathering of Gay and Lesbian Native People that took place near Winnipeg in 1990. Long before this “official” pan-Indian designation, many Indigenous groups had traditional language to describe individuals who performed a variety of roles not usually associated with their biological sex. The Navajo¹ (more correctly referred to as the Diné) called these individuals *nadleehi* (nawd-lay), the Dakota referred to them as *winkte* (win-tay), among the Crow, they were known as *bade* (baw-day), and the Zuni called them *lhamana* (la-ma-na). The original Northern Algonquin term, *niizh manitoag*, refers to the understanding that “all humans bear imprints of both [the feminine and the masculine], although some individuals may manifest both qualities more completely than others” (Anguksuar, 1997, p. 221). This term does not indicate or determine an individual’s sexual activity, but it does determine the characteristics that define a person’s social role and spiritual gifts.

Clearly, traditional Indigenous teaching included a more fluid and expanded conception of gender. Consequently, various Indigenous societies created roles for all members of their communities to fill, regardless of an individual’s gender expression. Indeed, research reveals that those individuals, who in modern times would be called Two

Spirit, performed highly respected and important spiritual, medical, and economic roles within various Indigenous groups (Brown, 1997; Gilley, 2006; Jacobs, Thomas, & Lang, 1997; Roscoe, 1998; and Williams, 1986). They were ceremonial leaders and the interpreters of dreams; they performed the duties of shaman/priests who acted as therapists and medical doctors; they were compassionate caretakers and “effective teachers of the young” (Brown, 1997; Mayo, 2012); and they served a vital economic role within various groups serving as weavers and cooks without the responsibility of infant care (Gilley, 2006; Jacobs, Thomas, and Lang, 1997; Roscoe, 1998; and Williams, 1986). Mayo (2012) reports that “Two Spirit individuals played vital, positive roles within [Indigenous] societies without the negative stigma that is now attached to people who violate expected gender norms” (p. 258). In addition, scholars have examined the experiences of contemporary Indigenous people who explain their connections to more traditional understandings of Two Spirit roles (Red Earth, 1997; Walters, et al., 2006) and the ways in which modern-day Two Spirit individuals strive to correct western misconceptions of Indigenous knowledge (Anguksuar, 1997).

Rediscovery of Two Spirit Traditions

Tinker (1993) concludes that upon colonization by Europeans, traditional ceremonial and social roles were undermined; inclusivity and acceptance

¹Though much current social studies literature and textbooks in k-12 classrooms still use the term *Navajo*, the people to whom this name was given

prefer the more traditional name, Diné. Out of respect for this Indigenous group, I use Diné throughout this article.

were replaced with condemnation and shame. By the early 20th century, much of the traditional teachings of acceptance for multi-gendered individuals had been lost or had gone underground, and the traditions of gender variance had been forgotten or repressed (Lang, 1997). The influence of Western ideas, including Christianity, also caused many Indigenous people to “forget” their traditional teachings; they no longer understood gender variance and homosexuality as two distinct phenomena. They were now understood as identical terms and met with strong disapproval. Consequently, “traditional gender roles for Two Spirit individuals disappeared on many reservations, and young people who [grew] up to be ‘different’ in terms of occupational preference and/or sexual orientation often [found] themselves at a loss for role models” (p. 109).

In the mid-1970s, an organization called Gay American Indians (GAI) was founded and spurred a movement to recapture some of the traditional teachings. In 1984, GAI sponsored a nation-wide history project that resulted in the publication of *Living the Spirit*, an anthology that contained essays on the Two Spirit tradition. These events laid the groundwork for the 1990 gathering, where *Two Spirit* was adopted as the official, and preferred, term of use. As Lang (1997) wrote, “the concept of two spirit emerged from an increasingly positive attitude toward being Native American and gay and the rediscovery of the acceptance—and sometimes even privileges—once enjoyed by Two Spirit people” (p. 111). A Two Spirit person became seen as someone actively living, preserving, and honoring American Indian cultures.

This rediscovery of Two Spirit traditions may be extended to the social studies classroom. Coupled with a broader conceptualization of social education, traditional Two Spirit teaching has the potential to impact students’ conception of gender roles, Indigenous histories, multiple expressions of gender, and other queer(ed) topics that fall within the purview of the social studies. What must come first, however, is acceptance of a more in-depth understanding of social education.

Reenvisioning Social Education

In the “Introduction” of *Bending the Future to Their Will: Civic Women, Social Education, and Democracy*, Crocco (1999) articulated a broad definition of social education. She wrote,

We take social education to mean teaching and learning about how individuals construct and live out their understandings of social, political, and economic relations—past and present—and the implications for these understandings for how citizens are educated in a democracy (p. 1).

Social studies researchers and k-12 social studies teachers must accept the responsibility of helping reshape the way social learning, including the acceptance of highly scripted gender norms, takes place in U.S. classrooms. Education researchers have warned that the hidden curriculum found within schools creates multiple barriers to students and their learning (Anyon, 1979; Apple, 1971; Cornbleth, 1984). These barriers include support for gendered scripts, which allow misogyny, bullying, and homophobia to run rampant in the hallways, in school

locker rooms, and in those other spaces at school too often unsupervised by responsible adults (Blount, 2004; Crocco & Davis, 1999). This hidden curriculum must be challenged and intentionally dismantled. One way of accomplishing this is to uncover new or forgotten information that exposes students to the vast array of gender expressions that are possible for them to intellectually explore and (perhaps) to physically enact. Incredibly, this can all be supported (and eventually fully accomplished) within the current social studies curriculum and its inclusion of American Indians and their traditional worldview. Thornton (2003) wrote, "Teachers have choices. Opportunities to incorporate at least some gay material into the standard curriculum exist; in many instances, all that is required is the will to call attention to aspects of standard subject matter that heretofore went unmentioned" (p. 228).

Social studies teachers across the United States, at minimum, mention American Indians as part of the accepted curriculum. Many social studies teachers include whole units about Indigenous cultures, yet little is spoken about the Two Spirit tradition. For the vast majority of students and teachers alike, this tradition remains invisible. As Thornton (2003) has noted, there is a tremendous gap within the social studies about gay, lesbian, bisexual, and transgender issues and the connections that are possible using the standard curriculum already in place in school districts around the nation. What follows provides teachers and students another lens through which to view and better appreciate the rich heritage and

teachings Indigenous people have to share.

Research Design

In October 2017, Mark Thompson², a former student and current high school social studies teacher in a rural/suburban school district asked if I would help him think through how to incorporate Two Spirit knowledge in his Anthropology class. Initially, we discussed how I might give an historic overview of who Two Spirit people are and some of the beliefs they hold. We quickly realized that we needed to speak about Two Spirit people in the present tense because we did not want students leaving the class thinking that they no longer existed. After several email exchanges and two face-to-face meetings, we settled on co-designing a 10-day unit on gender that we taught in late November/early December, 2017.

Given his first-hand knowledge of the students and the community where he teaches, Mark took the lead in lesson design, while I offered ideas and suggestions for activities/topics along the way. At some point during this collaboration, we decided that I would actually co-teach several lessons within the unit, leading those that were specific to Two Spirit knowledge, history, or experiences.

We began our co-teaching with an essential question: *Are human beings more a product of their genes or of their environments?* At its core, the unit centered on a common theme, nature vs. nurture. Students engaged in some readings from their textbook about the origins of one's

²The names of the teacher and students printed in this article are all pseudonyms.

personality as part of their overall investigation of the nature vs. nurture debate and answered the following questions in preparation for an in-class discussion that lasted over two days:

- What did John Locke argue in his “tabula rasa” theory? How did Locke miss the mark?
- What is enculturation and why is it important?
- What is self-awareness and how does it develop?
- What is personality and how is it comparable to a mask?
- What are some different things that influence the development of personality? Give examples.
- What is group personality and how does it connect to things like modal personality, national character, and core values?
- How can the idea of group personalities be useful? How can it be harmful?

At the conclusion of multiple in-class discussions about personality generated by these questions, both small group and whole class, the teacher shifted the conversation by asking a simple question: *What makes boys different from girls?* Students provided lots of feedback given their various lived experiences, which formed the basis of the teacher’s next pedagogical move—connecting the nature vs. nurture debate to an ongoing discussion about sex vs. gender. He explained how a person’s sex is biologically determined (nature) and introduced the idea that gender, unlike sex, is socially constructed (nurture). To follow up on this key idea, Mark and I engaged the class in an activity we called “Agree, Disagree, Neutral,” a variation of a common class activity known as four corners, which allows students to move into designated parts of the classroom

space depending on their various points of view. Upon hearing purposefully, provocative statements from us, students moved to their places in the classroom, and select students were chosen to offer why they stood where they did. Some of the prompts for this activity included:

- Men are physically stronger than women.
- Some careers are sex specific.
- Only women should wear dresses.
- Our sexual identity is the product of both biology and social constructs.
- Gender related social constructs are harmful, and especially for women.

The final two prompts served as an opening to the next significant topical move within the unit, which connected *sex and gender* to how various people express their gender, both in modern times and historically. We decided to include information about the various lesbian, gay, bisexual, and transgender (LGBT) communities as well, given our assumption that students would already bring this topic into the overall conversation with their questions. Our assumption turned out to be correct, and the final portion of the unit centered on Two Spirit Indigenous People because we believe they embody the Nature vs. Nurture, Sex vs. Gender debates, given their unique lived experiences in both modern society and the past. The 2009 documentary film *Two Spirits: Sexuality, Gender, and the Murder of Fred Martinez* served as an excellent resource for students to witness the life and times of a modern-day teenager who identified as Two Spirit and whose life embodied many of the discussion points that had been raised in class. Mark and I presented segments of this award-winning

documentary in class and coupled them with images and historical accounts (via interactive lecture) of Two Spirit People from various Indigenous groups in the United States, including the Crow, Dakota, Diné, and Zuni nations.

Following the 10-day unit, I returned to the school and conducted eleven, 30-45 minute interviews over a period of three days with students about their experience in the class. In the next section, I include insights from two of the participating youth, both 12th grade students who identified as white, cis-gender, working class, and who were long-time residents within this rural/suburban school district. Students saw me as both researcher and teacher. They were also very clear about my strong relationship with their teacher and knew that he was a former student of mine, which led to an enhanced level of trust between the students and me. I hold firm to the belief that such trust resulted in students feeling comfortable sharing their insights during the interview process. A few days later and outside of school hours, I also conducted a 90 minute interview with Mark, who identified as white, cis-gender, and straight.

Student Learning

Even before the 10-day unit on gender, students' prior knowledge about gender included nuanced language like "gender-fluid, non-binary, and transgender." When asked how they came across such knowledge, one student responded,

I guess you just learn things on the Internet and then you look into it more if you are interested by it. And like, I don't know, but

my friends talk about it too. Even before the unit, I knew that Two Spirit People was like a thing. But I didn't know a lot about it and it was never completely explained to me. (Elizabeth, December 18, 2017)

Despite an overall belief that they "live a sheltered life here in [name of community]," students' general curiosity about gender topics in the media and their individual explorations on the Internet have provided some level of comfort and familiarity with the idea of non-binary genders. Elizabeth stated clearly, "I knew about gender-fluidity and stuff," and yet she puzzled over why she ever considered pink to be a "girl" color and why she once believed that "hitting like a girl" was a bad thing. It seems as though the focus on gender helped some students to trouble some of their assumptions. At the same time, however, it was clear to students that some of their classmates "totally tuned out" during most of the unit and were not convinced that the lessons from the unit would do anything to change current attitudes or ideas.

I don't know if it [the unit] changed their viewpoints. It definitely offered a different perspective for them having heard the Two Spirit story ... I'm not sure what they got out of it or if they were closed off to it, but it definitely was important because we live a pretty sheltered life here in [name of community]. (Elizabeth, December 18, 2017)

I was reminded that the atmosphere in this particular teacher's classroom was far more accepting of gender differences than the school as a whole. One student described how a "group of white boys" openly harassed other male students who they perceived to be too effeminate. When I asked if these "effeminate" boys were

assumed to be gay or bisexual, the student quickly responded, "It doesn't matter. They just weren't acting right." Still referring to this group of bullies, students were unsure about their "potential for change" even if they had been exposed to the gender unit. In fact, one feared it would only support their current belief system because the material being taught was just too far beyond the bullies' comprehension and current lived reality of the male/female binary.

Once surprising finding was the level of parental engagement this project initiated. Students under 18 years of age had to deliver written permission from parents or guardians before I was allowed to interview them. On several occasions there was evidence that parents were interested in the classroom discussions about gender and wanted to know/learn more. The most explicit example came from the student who shared with me that her father "talked about all this at the family reunion." When family members later asked where he was getting this information, the student's mother quickly chimed in, "probably from your daughter." Another student spoke enthusiastically about his conversation with his dad about the permission slip he needed in order to be interviewed.

Jacob: Well, one conversation happened about this permission slip [to be interviewed]. My dad, well, sometimes he can be open minded but other times he's not because of the way he was raised I guess. The main thing he asked me was why I wanted to do this and we just had this conversation about what the topic was on and why I wanted to do it ... One of the biggest things was learning about the Two Spirit people ... he didn't have any understanding about who they were and he asked what that was and I just told him

how they accepted both genders into their life and I thought it was really interesting and it even changed my views on transgender people just due to how they lived and how they accepted both and lived in their society compared to ours. (December 21, 2017)

J.B. [Wow, how did he respond to that?]

Jacob: Well, he was kind of like ... he just kind of accepted it and was like, 'Ok, well that sounds good.' I thought it was kind of cool because he actually took interest where a lot of times people will say 'can you sign this' but he was like 'can I read it?' (December 21, 2017)

This exchange between Jacob and his dad indicates the pervasive and limited (mis)understanding around gender among students and parents alike. It also suggests that people are willing to open their minds to the possibility of expanded conceptions of gender beyond the male/female binary. The conversation between parent and child also points to the ways gender conversations in social studies classrooms might impact our students and their families.

Conclusions & Implications

Mayo and Sheppard (2012) postulated that students' exposure to Two Spirit individuals' nuanced worldview would help them better understand and accept the differences they see in their peers and other people with whom they have contact. Whereas one student who participated in this project clearly remained ambivalent about the impact the Two Spirit unit may have played on her classmates' perceptions of transgender or non-binary individuals, Jacob's comments below indicate that there is some possibility for students obtaining nuanced

understandings about gender and (potentially) other forms of difference among people.

I still don't quite understand how they can just switch like that without the procedure [gender reassignment surgery] but again I still accept them because that's their body, that's how they want to live their life ... it doesn't really impact my life [unless I know someone directly] so I'm gonna let them live how they wanna live their life and be happy. I think the biggest part is just being more accepting, I guess. Not just toward transgender people but just opening up a door to someone I realize that's just how they want to live their life and they wanna be happy just like I wanna be happy. They don't have to live like me. It just opens up acceptance to all different kinds of people ...they're other human beings and they want to be happy. They're not changing my life making it worse because of how they choose to live. (Jacob, December 21, 2017)

With this new understanding, students at Midwestern High School may become encouraged to invite diverse people in, rather than push them away. Once accepted, individuals who were formerly ridiculed and placed on the margins, including students with "minoritized" sexualities and students demonstrating alternative expressions of gender, may be more likely to find spaces closer to the center. These outcomes may be possible because *all* the students in [Mark's] class have engaged in a different form of social learning, one that may have expanded their thinking and understanding of current, more-rigid social and gender norms.

One of the hallmarks of any Two Spirit investigation and inquiry is examining the worldview of Indigenous people who understand gender as flexible

and changing, rather than as dichotomous and fixed. As Walters et al (2006) remind us, "Two-Spirit affirms the interrelatedness of all aspects of identity including sexuality, gender, culture, community and spirituality. Indigenous world view tends to embrace ambiguity, complexity, and non-linearity-processes that run counter to group mobilization for a unifying construct" (p. 233). Therefore, the significance of this work is that it offers students an opportunity to engage gender as a non-binary construct, a perspective that is timely – actually, long overdue – given the recent spotlight on gender and schools as it pertains to the lives of students who identify as transgender and their rights to live as full citizens at school.

As an education researcher, I have an obligation to use knowledge and theory in ways that allow future k-12 teachers to engage their students. I also must incorporate methodologies and research design that reveal how students think (and act) about topics and about how the lessons they encounter impact their lives at school. Therefore, this project included research on the lives of Two Spirit people (historically and in modern times) *and* research on how students engaged and responded to the new knowledge gained about gender/identity/expression. Thus, the project was located at the intersection of theory, classroom practice, and students' thinking about pedagogy, all of which responds to the age old question from teachers, "But how do I do *this* in my classroom?"

Nuanced social studies lessons will not bring back the many trans-women of color who have been murdered or the many adolescents who have committed suicide like Justin Aaberg, Asher Brown,

Raymond Chase, Tyler Clementi, Billy Lucas, Jamel Myles, Nigel Shelby, and Seth Walsh, but if these lessons help create changes in students' thinking and help cleanse the toxic, homophobic, gender-restrictive atmospheres found in many schools, future lives on the brink may be saved. Young people may find acceptance instead of rejection, learn to celebrate diversity in its many forms, and help schools move closer to promoting social justice. These positive outcomes are all possible when teachers think more broadly and creatively about existing social studies curricula centered on Indigenous people and include information about their traditional teaching and worldviews.

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CLIMATE CHANGE AND PENNSYLVANIA SOCIAL STUDIES TEACHING

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"I think it is extremely important that social studies educators realize their role in the climate change conversation." -- A Pennsylvania secondary social studies teacher (Fall, 2017)

"That is an area I leave for the Science teacher on my academic team." -- A Pennsylvania secondary social studies teacher (Fall, 2017)

In early January of this year, a report (Plumer, 2019) was released noting that U.S. carbon dioxide emissions increased in 2018 by 3.4%, the largest increase in eight years. For people concerned about destabilization of the Earth's climate, this was worrisome news as increased carbon dioxide emissions accelerate global climate change. The next day, Pennsylvania Governor Tom Wolf signed an executive order calling on the Commonwealth of Pennsylvania to take action to address climate change, including establishing the first statewide goal for reducing carbon pollution. In his statement, the Governor referred to climate change as "the most critical environmental threat facing the world" (Pennsylvania Governor's Office, 2019, paragraph 2).

We, too, are deeply concerned about climate change. As educational researchers and teacher educators who work at the intersection of social and scientific issues, we believe it is imperative that *all* teachers teach about climate change. Yet a survey of U.S. science teachers found that many high school students only receive 1-2 hours of instruction related to climate change each

year (Plutzer et al., 2016). In social studies, we suspect the corresponding numbers are even smaller as climate change has received relatively little attention in the literature of the field (Kissling, Bell, Díaz Beltrán, & Myler, 2017). There are various reasons for this silence, including the widely held perception that climate change is solely a scientific issue, that there is already much other social studies content with which to engage, and that climate change is politically controversial in the United States.

On closer inspection, though, each of these reasons falls apart quickly. First, scientific issues are never separate from their social contexts, particularly issues like climate change, which 97% of scientists agree is caused by human activity (Cook et al., 2016). Thus, the current trends of climate change are a product of social living, not separate from it, and they stand to impact all organisms of the Earth, human and other-than-human. Second, the purpose of social studies education, as articulated by the National Council for the Social Studies (2010) (and affirmed by the Pennsylvania Council for the Social Studies), is for students to learn to become effective citizens. With dire forecasts for (and, in some places, present realities of) climate change (Wallace-Wells, 2019), it is hard to envision many citizenship issues that are more salient. Third, as we discuss below, climate change *is* politically controversial (though, importantly, not scientifically controversial) *but* social studies is predicated on critical inquiry into the

problems of social living (e.g., Hess, 2009; Ho & Seow, 2015; Journell, 2016; Oliver & Shaver, 1974; Rugg, 1923). If we don't dialogue about climate change (and other politically controversial issues) in social studies, where will we?

The State of Climate Change

Governor Wolf is not alone in his assessment of climate change:

The United Nations has declared that climate change is the defining issue of our time and we are at a defining moment. From shifting weather patterns that threaten food production, to rising sea levels that increase the risk of catastrophic flooding, the impacts of climate change are global in scope and unprecedented in scale. Without drastic action today, adapting to these impacts in the future will be more difficult and costly. (n.d., paragraph 1)

Statements like these are founded on science firmly established long ago (Rich, 2019) and reaffirmed in every single major study that has come out about it in the past decade, from a range of different governmental and nongovernmental bodies, including the most recent assessments (e.g., Intergovernmental Panel on Climate Change, 2018; U.S. Global Change Research Program, 2018).

In 2008, the Pennsylvania legislature passed the "Pennsylvania Climate Change Act" (Act 70), which, among other things, required periodic reports on the impacts of climate change in

the state. The draft of the fourth and latest report (ICF, 2018), from last November, stated:

In recent years, extreme weather and catastrophic natural disasters have become more frequent and more intense. Like many parts of the United States, Pennsylvania is expected to experience higher temperatures, changes in precipitation, sea level rise, and more frequent extreme events and flooding because of climate change in the coming decades. Climate impacts in Pennsylvania are real and continue to put Pennsylvanians at risk. (p. 12)

The assessments in Pennsylvania and beyond are conclusive: climate change poses serious threats to contemporary ways of living.

While public opinion polls show that there is less consensus among the U.S. public than climate scientists, sizable majorities of respondents believe climate change is human-driven and a major threat. In a nationally representative survey of registered U.S. voters in March of 2018 (Leiserowitz et al., 2018), the Yale Program on Climate Change Communication and the George Mason University Center for Climate Change Communication found that 73% of the citizens polled think global warming³ is happening, 63% are worried about it, and 59% think it is caused mostly by human activities. A separate Gallup poll (Brenan & Saad, 2018) from the same month found similar results: 64% of respondents believe that global warming is caused by human

³ While 'climate change' and 'global warming' are not exactly the same—global warming is a form of climate change—they are often used synonymously, both in public and scientific discourses. When we write about this topic, we prefer to use 'climate change' because 'global warming' can be confusing for some people, especially when they have endured cold winters and

other weather events that seem at odds with warming of the planet. We use 'global warming' in this instance because it was the term used in the survey that we are referencing. Additionally, when we write of 'climate change,' we always imply 'global climate change' as the issue is not specific to any one country or state, even though local impacts can vary widely.

activities, 60% believe the effects of global warming have already begun, and 43% worry a “great deal” about it while another 20% worry about it a “fair amount.” Both of these polls found significant gaps between Democrats and Republicans—and climate change has been found to be one of the most polarizing issues in the United States (Borenstein, 2016; Cama, 2016)—yet there is still ample and growing concern from a majority of the public about the destabilization of the Earth’s climate.

U.S. federal officials—elected and appointed—appear to be far more divided than the public over climate change, even though U.S. federal agencies such as the Department of Defense (2014, 2015) have issued clear warnings. While Barack Obama’s administration named climate change a major threat and took some action to impede it (Hirschfeld Davis et al., 2016; Lavelle, 2016), Donald Trump’s administration has largely equivocated about the threat of climate change or outright denied its existence (Baker, 2017; Davenport, 2017; Holden, 2018). Perhaps the most glaring action by the Trump administration was the President’s 2017 announcement (Trump, 2017) that he would seek to pull the United States out of the 2015 Paris Climate Accord. The agreement, signed by nearly every country in the world, aimed to reduce carbon emissions significantly in the coming years in order to limit a devastating rise of the average global temperature (Harvey, 2015). Yet, when Trump signaled a U.S. withdrawal (which cannot technically happen until November 5, 2020), the majority of U.S. citizens in every state supported U.S. participation in the accord (Marlon, Fine, & Leiserowitz, 2017).

In the Yale and George Mason study from last year, respondents were asked how much they agreed with the statement: “Schools should teach our children about the causes, consequences, and potential solutions to global warming” (Leiserowitz et al., 2018, p. 21), and 81% agreed “strongly” or “somewhat.” A more recent poll from National Public Radio and Ipsos (Kamenetz, 2019), released this past Earth Day (April 22), found that 66% of U.S. adults believed that “schools should teach about climate change and its impacts on our environment, economy and society” and 12% believed “schools should teach that climate change exists, but not the potential impacts.” For these same statements, 74% of teachers agreed with the former and 12% with the latter. These high public-opinion percentages indicate that the public both recognizes the threat of climate change and a role for schools to play in addressing it.

Climate Change and Pennsylvania’s Secondary Social Studies Teachers

In the fall of 2017, as nearly all climate scientists and world governments were sounding an alarm about the catastrophic implications of a rapidly changing climate, we wondered how Pennsylvania social studies teachers were thinking and teaching about environmental issues, which we defined as “topics having to do with the wellbeing of the Earth, including people, other living beings, air, water, and so forth.” We conducted an online survey of teachers’ beliefs and teaching about environmental issues and some of the survey questions were specific to climate change (see Appendix for these questions).

Via email we shared a survey link with 7,456 public-school secondary social studies teachers across the Commonwealth. As 1,174 teachers responded, we had a response rate of 15.8%, and those responses came from 440 (or 55.8%) of Pennsylvania's 788 public-school districts, including 367 (or 73.4%) of 500 geographic school districts (see Figure 1).⁴

While we are in the process of reporting on the larger study in various publishing outlets, here we present findings related to the respondents' personal beliefs and teaching about climate change. After considering their personal beliefs and teaching practices, we look at associations between various teacher characteristics and teaching about climate change often during the 2017-8 school year. We conclude this section with consideration of some of the comments that the teachers shared on the open-ended questions of the survey.

Personal Beliefs. The teachers that responded to our survey showed an overwhelming belief in the existence and threat of climate change (see Table 1), as 90% agreed that climate change is occurring and nearly as many responded that climate change is a significant issue for human society and the wellbeing of the Earth. The percentages of teachers who saw climate change as an immediate threat and human activity as its primary cause dropped but still showed a clear majority.

Teaching Practices. Climate change was taught by a substantial majority of the responding teachers, as 77.6% reported that they would teach about climate change during the 2017-8 school year (see Table 2). Of these

teachers, though, only 12.9% said they would teach about climate change "often" while 64.7% said "occasionally." Thus, it was taught but not with great frequency. With respect to other environmental issues (EI) that we asked about, the teachers said they would teach about climate change more than all except for food shortages.

Characteristics of Teachers Who Teach about Climate Change Often.

Curious about potential indicators of teaching about climate change often, we identified teacher characteristics with the highest associations to teaching about climate change often during the 2017-8 year (see Table 3). That is, for each teacher characteristic in our survey (e.g., is female, teaches about coal extraction in Pennsylvania, believes it is very important to teach students to be good citizens, etc.), we looked at the corresponding percentages of how often those teachers would teach about climate change in 2017-8. Perhaps unsurprisingly, the teachers who reported that they would teach often about specific environmental issues during 2017-8, as well as the ones who said that they generally teach about environmental issues often, were most likely to teach about climate change often in 2017-8. The next characteristics with the strongest associations were teachers who connect environmental issues to racism and poverty and teachers who would teach about hydraulic fracturing (or fracking) in Pennsylvania in 2017-8.

While all of the teacher characteristics in Table 3 were associated with teaching about climate change often at a rate of at least two times the overall

⁴ The 288 non-geographic school districts are other educational agencies like charter schools, cyber schools, and career centers.

respondent population (which was 12.9%), some other characteristics are noteworthy to us. Over one in five (21.2%) of teachers who believe that it is “very important” to teach about environmental issues in social studies would teach about climate change often in the 2017-8 school year. A small bit more (21.9%) who said that they are “very comfortable” teaching about environmental issues would teach about climate change often. For teachers who actively seek to connect teaching about environmental issues to democracy and citizenship, 23.9% and 22.5% of them, respectively, would teach about climate change often in 2017-8. Several percentage points less, but still higher than the overall respondent population, 18.8% of teachers who reported that they are familiar with Article 1, Section 27 of the Pennsylvania Constitution, which enshrined into law environmental responsibility of the Pennsylvania government, reported that they would teach about climate change often.⁵

For characteristics that were not explicitly tied to environmental issues in some form, the highest associations for teaching about climate change often were teaching about gender discrimination often (23.1%), teaching about class inequality often (21.5%), and teaching about racism often (19.5%). A few other noteworthy associations involve teacher characteristics related to years teaching, gender, and political party affiliation. Teachers who had been in the classroom 1-10 years reported that they would teach about climate change often in 2017-8 at a rate of 16.1%, which was noticeably higher

than teachers of 11-19 years (11.9%) and 20 or more years (10.7%). Female teachers (14.0%) were slightly more likely to teach about climate change often than male teachers (12.3%). Teachers who were registered Democrats would teach about climate change in 2017-8 often at a rate of 16.1% while 6.8% of registered Republicans would do so. Registered Independents, teachers who preferred to self-describe their party affiliation, and teachers who preferred not to disclose their party affiliation all would teach about climate change often between 11.1%-11.9%.

Teachers’ Open-Ended Comments about Climate Change. Our survey included six open-ended questions. Although none of the questions explicitly addressed climate change, respondents wrote often about it. Many teachers described how they already bring environmental issues, including climate change, into their social studies classes. One noted, “I have focused lessons on the current debate over fracking and environmental issues in PA. In my AP U.S. History and Geography classes, I have taught about the [Environmental Protection Agency] (why it was created, who was president, and its influence) and explained the evidence associated with climate change.” Another said, “I teach my students on how human actions impact PA environment. I focus on effects of climate change on large natural disasters and international conflicts.” Some teachers still wondered, though, if climate change has a place in their

⁵ Article 1, Section 27 of the Pennsylvania Constitution reads: “The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania’s public natural resources are the common property of all

the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.”

curriculum: "If I taught 20th century world history, these modern issues might come up more...but because I teach early world history and adhere to the AP curriculum guidelines, my half of the course ends around 1500 AD...so climate change issues are simply not on my radar in the classroom."

As reflected in teachers' responses to our multiple-choice questions about climate change, there were some who disagreed strongly with the inclusion of climate change and other environmental issues in social studies as well as about the science of climate change. For example, one teacher began a comment by offering that "Early social studies education has already been reduced almost exclusively to global warming fear-mongering." They then suggested that the survey questions revealed "an inherent bias in the researchers" and concluded by saying "I hope you are honest about that in your analysis of the data. I guess this is the best we can expect from a generation that has not been taught how to gather information and think critically rather than buying into a theory and looking only for confirmation."⁶ Although we had very few comments such as this one, where the respondent was seemingly upset by the survey's implicit suggestion that climate change and other environmental issues have a place in the social studies curriculum, we feel it is important to acknowledge voices across the spectrum of responses. Another teacher, thinking about the social studies curriculum, observed the opposite, explaining, "We

need to teach kids about climate change...Not many teachers are teaching this stuff. I know this because when we bring up climate change in class, the kids are shocked by it."

Also in the comments is that the political controversy surrounding climate change is impacting teachers. One teacher wrote:

The environment will most likely become one of the main issues of my students' lives. It is unfortunate that it doesn't make up a larger portion of our educational time but the public perception towards issues like climate change prevent schools from taking it more seriously. Teaching environmental issues in a Social Studies class would probably be perceived as a 'liberal agenda.'

Others echoed this sentiment, indicating that they felt limited in their ability to address climate change because of the controversy. When considering climate change as a factor that many scientists believe contributes to an increase in frequency and intensity of hurricanes, one respondent said, "I mainly stick to the basics like when, where, destruction, relief efforts, etc. I have not brought up climate change as a possible factor. The main reason is politics and we cover enough controversial topics in class. I hope that global warming concerns are covered in science." Another said they would like to learn "How to teach that climate change and environmental concerns are important without parent push back." A third asked for support "on how to handle what have become very political topics." Yet,

⁶ In light of this comment we, as researchers and authors, would like to note that we do both strongly believe that the science of climate change is accurate. This is not a political choice on our part; it is because most, if not all, of the best scientists of our generation

have gathered and analyzed mass quantities of data and have repeatedly come to the conclusion that climate change is occurring, a result of human activity, and a major threat that must be addressed immediately (Doyle, 2019).

despite the politics, many teachers thought this was necessary to bring into the social studies classroom. As one teacher said, “hopefully the majority of our Social Studies teachers believe climate change and environmental issues are important.”

As noted above, the social studies classroom is an important place in schooling *because* controversial social issues need to be considered in order to help students become informed and engaged citizens. Many teachers wrote of the important role of controversy in their classrooms, for example:

I often teach about current events in my classroom that some people may deem ‘controversial.’ An issue like climate change is only a politically controversial subject. In the field of science it is far less controversial. With issues like Black Lives Matter, again, this is only a politically controversial topic. To claim that Black lives matter is by no means controversial. Additionally, my Black students need to know that their lives matter in a society where the opposite can feel true.

It is clear that climate change is of significant personal concern for many of the Pennsylvania secondary social studies teachers that responded to our survey. Further, a significant percentage of those teachers said that they had already, or would, teach about climate change often or occasionally during the 2017-8 school year. Yet many teachers noted challenges to doing such teaching, including feeling a lack of needed knowledge about climate change and concern about political controversy surrounding the topic.

Resources and Ideas for Teaching about Climate Change in Social Studies

While the literature of social studies education is not steeped in attention to climate change, there is a growing focus on it (e.g., Chandler & Marri, 2012; Ho & Seow, 2015), including writings by and for teachers. There have been articles with teaching suggestions and materials in the NCSS publications *Social Education* (Choices Program at Brown University, 2015; Kumler, & Vosburg-Bluem, 2014) and *Social Studies and the Young Learner* (Harris, Kharecha, Goble, & Goble, 2016). The educational organization Rethinking Schools, both in its quarterly magazine of the same name and book resources such as *A People’s Curriculum for the Earth* (Bigelow & Swinehart, 2014), has published numerous articles about how social studies teachers are teaching about climate change and how others can do so. There are also various online resources, including from the educational organization Climate Generation (e.g., Totz, 2016), which also leads an annual summer institute for teachers on climate change education. (For more information on this year’s summer institute held in Washington, D.C. in August, see: <https://www.climategen.org/take-action/teach-climate-change/professional-development/summer-institute/>)

Undeniably, climate change is a massive topic so thinking about where to start with teaching about it can be a daunting task. Out of many possibilities, we offer a few suggestions:

- Learn more about the scientific and social dimensions of climate change. In our survey, many teachers spoke to unease with the content and political controversy of climate change. There are ample resources for gaining a better grasp of the issue, including

many that don't require significant scientific expertise to understand them (e.g., Rich, 2019; Wallace-Wells, 2019). There are also accessible-to-the-public texts by Pennsylvania scientists (e.g., Alley, 2011; Mann & Toles, 2016).

- Make curricular connections. Climate change is rarely specified in social studies standards but it connects to almost everything. The Five Themes of Geography (including human-environment interaction) provide a clear conduit for talking about climate issues. In history classes, attention to industrialization should include consideration of the impacts on climate. If teaching about human-justice issues, why not connect climate justice? Questions such as *Who is feeling the impacts of climate change now, and why?* implicate various forms of discrimination.
- Whether you have dedicated curricular time for current events or not, bring in the news. Climate change is being covered and written about by journalists more and more. For example, a recent Associated Press article (i.e., Levy, 2019) reported that Pennsylvania lawmakers may enact legislation to support nuclear power plants in the state if provisions are included that seek to "impose limits and fees on carbon emissions, or expand on 15-year-old requirements to subsidize renewable energies, such as wind and solar power" (paragraph 4). Lawmakers are quoted in the article stating that their thinking is shaped by the crisis of climate change.
- Collaborate with colleagues, including outside of social studies, to plan and teach integrated units and lessons. (Even before this, simply talk with colleagues about climate change, its impacts, and its ties to any and all subject areas.)
- Friday in order to protest inaction on climate change in front of the United Nations (Kaplan, 2019). Thunberg and Villasenor are joined by youth around the world in movements such as
 - Study the 2017 Pennsylvania Supreme Court case *Pennsylvania Environmental Defense Foundation v. Commonwealth*, in which the Court upheld a broad interpretation of the environmental rights amendment (i.e., Article 1, Section 27) of the Pennsylvania Constitution (Phillips, 2017).
 - Explore public opinion polling about climate change (e.g., Brennan & Saad, 2018; Borenstein, 2016; Cama, 2016; Kamenetz, 2019; Mildenerger, et al., 2018).
 - Consider how some legislators in other U.S. states are seeking to prevent teachers and students from studying climate change in schools (Czajka, 2019).
 - Follow the case of *Juliana v. United States* (Our Children's Trust, 2019), in which 21 youth plaintiffs have brought a constitutional lawsuit against the U.S. federal government for its role in acerbating climate change. A recent segment on *60 Minutes* about the lawsuit provides an accessible audiovisual overview of the case as it works its way through the legal system (Kroft, 2019).
 - Examine other forms of youth activism related to climate change. Greta Thunberg, of Sweden, and Alexandria Villasenor, of the United States, are two of many youths around the world who are speaking out about, and taking action against, the crisis of climate change. Thunberg, as a 15-year-old, addressed government ministers from countries around the world at the 24th annual United Nations climate summit in Poland after, among other things, repeatedly skipping school to protest governmental inaction in front of the Swedish Parliament (Democracy Now!, 2018). The 13-year-old Villasenor began missing school each #FridaysForFuture and School Strike 4 Climate (Irfan, 2019). Perhaps host a classroom deliberation: Should students skip school to advocate for climate action?

Conclusion

Although global climate change is an immense problem that no single student, teacher, school, or district (or even state or country) will solve, it must be present in the social studies curriculum for students—citizens—to develop the capacity to work with others to address it. We fully acknowledge that social studies

teaching about climate change isn't easy, particularly as it is politically controversial as well as often framed solely as a science issue. However, social studies is founded on taking up the challenges of citizenship and democracy, including controversial issues, and this places attention to climate change (and climate justice) squarely in the midst of the social studies curriculum.

Figure 1

Map of Pennsylvania geographic school districts (shaded) with at least one teacher response to the survey.

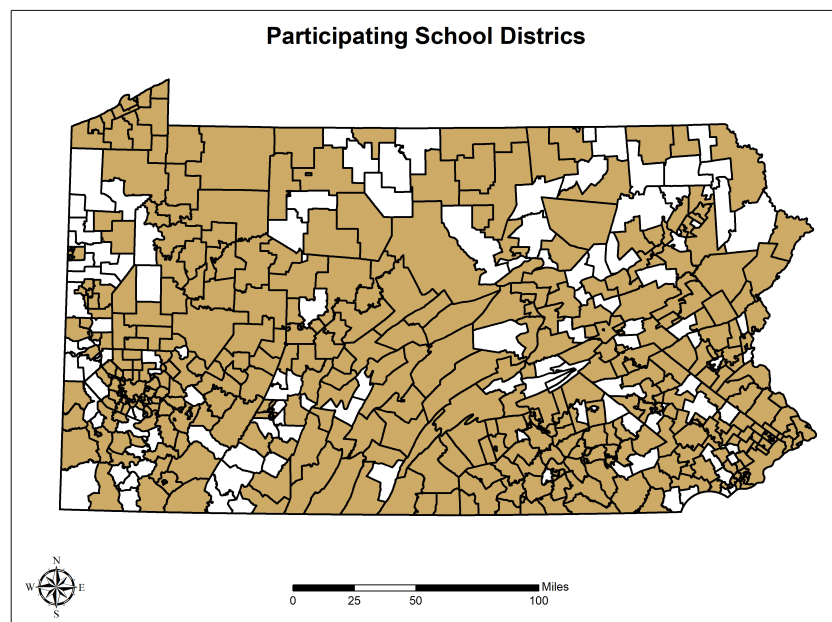


Table 1

Responses to statements about climate change.

	I agree	I disagree	I'm unsure	Number of responses
Climate change is occurring.	90.0%	3.1%	7.0%	1007
Climate change is a significant issue for human society.	85.6%	5.7%	8.7%	1008
Climate change is a significant issue for the wellbeing of the Earth.	85.9%	5.5%	8.6%	1009
Climate change is not an immediate threat.	12.7%	70.2%	17.1%	1007
Human activity is not the primary cause of climate change.	11.8%	69.2%	19.0%	1011

Note: Totals may not sum to 100% due to rounding.

Table 2

Frequency with which teachers said they would teach EI topics during the 2017-8 school year.

	Often	Occasionally	Never	Number of responses
Air and water pollution	9.0%	65.2%	25.9%	1025
Climate change	12.9%	64.7%	22.5%	1027
Food shortages	20.5%	62.0%	17.5%	1026
Fossil fuel extraction	11.0%	56.4%	32.6%	1026
Species extinction	5.4%	42.9%	51.8%	1026

Note: Totals may not sum to 100% due to rounding.

Table 3

Strongest associations between teacher characteristics and teaching about climate change often.

Teacher Characteristic	Percentage who would teach about climate change often*
Would teach about air and water pollution often*	70.7
Would teach about species extinction often*	65.5
Would teach about fossil fuel extraction often*	54.9
Teaches about environmental issues often	45.8
Would teach about food shortages often*	37.1
Connects teaching about environmental issues with racism often	31.5
Connects teaching about environmental issues with poverty often	26.4
Would teach about fracking in Pennsylvania*	25.8

Note: An asterisk () denotes teaching in the 2017-8 school year.*

Appendix: Climate Change Survey Questions

1. In my Social Studies teaching **this year**, I plan to teach about:

	Often	Occasionally	Never
Air and water pollution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Class inequality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Climate change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Food shortages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fossil fuel extraction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gender discrimination	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Racism	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Species extinction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Please respond to each of the following statements:

	I agree	I disagree	I'm unsure
Climate change is occurring.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Climate change is not an immediate threat.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Human activity is not the primary cause of climate change.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Climate change is a significant issue for human society.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Climate change is a significant issue for the wellbeing of the Earth.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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IS RECYCLING SUSTAINABLE?: AN ECOLOGICAL INQUIRY

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Rapid population growth, unchecked capitalist consumerism, and the emission of greenhouse gasses have all resulted in ecological devastation that threatens the lives of humans and other species across the globe. While environmental movements have existed globally in various forms for thousands of years, activists have increasingly pushed environmental issues into the public consciousness and dialogues. The recycling movement is one of the movements that gained widespread adoption and is practiced in most cities. “Reduce, Reuse, Recycle” is a common phrase spread by environmentalists and citizens to promote reducing waste and combatting litter (Denchak, 2018). As a result, many educational programs and state education standards (e.g., TEA, 2017) focus on environmental and scientific ways of understanding recycling. While environmental motivations have been a primary focus of recycling campaigns and education programs, the practice of how communities recycle today is largely dependent upon economic forces (Wheeler & Glucksmann, 2016). In addition to economic factors, there are social implications related to recycling concerning how waste is collected, where materials are transported, and what choices consumers make. The ways cities choose to recycle can have far reaching impacts on the market for recycled products and on the finished products that utilize recycled materials. While recycling

can positively impact the environment by reducing waste in landfills, recycling systems have also contributed to the quality of materials recycled and how cities can convert recyclable waste into processed recycling.

Ecology in the Social Studies

Students are likely to be interested in recycling because their families may recycle at home or their schools may participate in recycling programs. This everyday activity can offer a point of departure for integrating ecological issues across social studies subjects, classes, and grade levels to prepare students to confront human-centered and market-driven ethics and advocate for environmental and social justice (Houser, 2009). Studying environmental forces in social studies classrooms can help students better understand and take action on social and economic issues in their local and global communities (Kissling & Rogers, 2014). Integrating sustainability into preservice education programs can encourage teacher candidates to incorporate ecological curricula into their social studies classes from multidisciplinary perspectives (Crocco, Marri, & Chandler, 2013). Kissling and Barton (2013) defined the term *ecological citizen* as someone who “recognizes the importance and interconnectivity of all living beings, human and non-human... (and) that she

or he is responsible to all beings and actively seeks sustainable futures for them” (p. 130).

As students grapple with their role as ecological citizens, they can more fully consider the social costs of their decisions and seek solutions to reverse negative environmental impacts. Specifically with waste management, people who view recycling as their *civic duty* coupled with the belief that recycling is beneficial to the environment, recycle much more than people who do not share those common beliefs (Halvorsen, 2012). Moreover, environmental issues are of urgent importance to young people who must face these problems long after most current legislators have retired and passed. Young citizens have exhibited their commitment to these issues; for example, the youth-led Sunrise Movement has pushed Congress to enact legislation for a Green New Deal (Roberts, 2018). Students should not only understand the environmental impact of recycling, but how the economic incentives impact the way citizens and cities recycle efficiently. Such efforts might ensure that recycling programs around the world are successful and ecologically beneficial for people and the planet.

Table 1: Most Common Methods of Recycling

Curbside Recycling	Citizens place their recycling into a receptacle and it is collected (usually once per week) by the city or a waste management company.
Drop-off Recycling	Citizens collect their own recycling and transport it themselves to a drop-off center at a central location.

Deposit Refund	Citizens pay an extra fee upfront for a product that utilizes a recyclable material and then receive that fee back when they return the material.
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Methods of Recycling

Students can learn about different methods of recycling so as to identify the methods their families, schools, or communities may use in addition to assessing whether the best approach is being used. Currently, the most common methods of recycling for citizens are curbside pick-up, drop off centers, and deposit refund systems (United States Environmental Protection Agency, 2016; See Table 1). Curbside pick-up can either be single stream or multi stream, which simply differentiates the number of different containers in which citizens sort their recycled waste before collection. Curbside pickup takes different forms depending on the locale. Some cities operate a *bag and tag* program where citizens label what is in each trash bag. If citizens fail to properly label waste the city may not collect waste and this failure could even result in fines (Usui, 2008). There are also “Pay as you Throw” (PAYT) systems where citizens pay for the weight of the non-recyclable waste of which they dispose (Buccioli, Montinari, & Piovesan, 2015). People who wish to recycle, but live in an area that does not offer curbside recycling must sort their own recycling and transport it to either a common recycling bin for their residential area or a recycling center for processing.

The deposit refund system offers another major type of recycling collection where citizens pay an upfront fee when purchasing a product that utilizes a

recyclable material (e.g., extra 10 cent fee on a bottle of water) and then they return the container for a fee refund (Reality Check Team, 2018). In general, increasing the availability of recycling with curbside collection and drop-off centers increases the amount of recycling that takes place, but PAYT systems have had more mixed results in decreasing the amount of non-recyclable waste that is collected (Halvorsen, 2012). Deposit refund systems have proven less effective at increasing recycling rates (Saphores & Nixon, 2014), which are likely due to the additional steps citizens must take to transport used containers back to a processing facility or reverse vending machine to return the containers and collect a refund.

Problems with Recycling Programs

Recently, market factors have caused tumult in the recycling industry in the United States and other developed economies, which impacts citizens as they recycle everyday items. When cities have traditionally collected recyclable materials they would sort everything, bale it, and then sell it unprocessed to a processor for a profit. These processors would then convert the unprocessed recycled material into material that could be used to make new products. Until recently, China was the largest importer of unprocessed recycled material (Lee, 2018) but the country has implemented new policies that severely limit the amount of unprocessed recycled material they will import from other nations (Mesch, 2018). Because waste management companies no longer can export their unprocessed recycled materials to China, there has been a large increase in the supply of

unprocessed recycled material available for sale, which has dropped their price. Consequently, many waste management companies and cities are struggling to make recycling economically viable. In some cases, this has led cities to simply dump recyclable materials into landfills (Albeck-Ripka, 2018) or incinerate the materials, which leads to increased pollution and health-related issues for communities that surround the incineration plants (Milman, 2019).

Another dilemma for municipal recycling programs is contamination (Bell, 2018). Contamination of recycled materials occurs when non-recyclable material enters the recycling stream. Examples of contamination include pizza boxes with grease on them, leftover coffee at the bottom of a paper to-go cup, or food scraps left in the recyclable container. Contamination lowers the quality of recycled materials, which lowers the price that waste management companies can charge for their products and thus makes it more difficult for communities to afford their recycling programs.

In addition to the problems with how citizens currently recycle, the continued success of recycling programs relies on being able to convince people to begin to recycle and make it an *internalized personal norm* (Botetzagias, Andora- Fani, & Chrisovaladis, 2015). Botetzagais et al. (2015) explained that the method and cost of recycling to citizens are just two examples of other factors which influence the recycling rates among citizens. These problems undermine recycling efforts and make it more difficult for cities and citizens to practice environmentalism. Educating students about recycling can

increase the quantity, quality, and viability of recycling efforts in the future.

Inquiring into Recycling Programs

The focus of most current recycling programs, either in schools or promoted by waste management companies and cities, is on positive environmental impact (Lakhan, 2016). Waste management companies run media campaigns and inform citizens on the correct materials to place in the bins (Lakhan, 2016). While these are important components of recycling, they do not inform citizens about the mechanics of recycling and the incentive structure of recycling correctly and efficiently. These educational programs do little to change people's existing behavior and convince new citizens to recycle. Teachers can address social and economic recycling issues with students so that they may make more informed decisions.

In the following inquiry activity, we draw on the four dimensions of the Inquiry Arc of the *College, Career, and Civic Life (C3) Framework* (NCSS, 2013), which is organized to engage students in intellectually robust inquiries that are personally relevant and socially important. Students can be invited to engage in the inquiry arc to develop compelling and supporting questions, apply disciplinary concepts and tools, evaluate sources and use evidence, and communicate conclusions and take informed action. We believe teachers can adapt this lesson to their contexts, students' knowledge, and their experience with the topic. For example, the level of participation in recycling, or lack of recycling programs, may impact students'

prior knowledge. Teachers might also consider inviting government officials or environmental activists into their classrooms to enhance the inquiry.

Is Recycling Sustainable? (C3 Framework, Dimension 1)

While citizens may be used to asking about whether certain forms of consumption are *sustainable*, they may not have considered whether the environmental practice of recycling is itself sustainable. We therefore believe students will be interested in answering the compelling question, *is recycling sustainable?* We recommend introducing this question early in the inquiry and then returning to it at the end. Our three supporting questions can help students gather evidence by investigating recycling methods, processes, and problems (see Table 2). Throughout the inquiry, these questions can help bound students' explorations as they seek to understand particular aspects of the recycling industry. In critically looking at this practice, and answering the compelling question, students will move beyond the simple understandings of recycling as an environmental issue, and work towards identifying more sustainable recycling practices.

Table 2: Compelling & Supporting Questions

Compelling Question	<ul style="list-style-type: none"> • Is recycling sustainable?
Supporting Questions	<ul style="list-style-type: none"> • What are the different methods of recycling? • How does a product become recycled? • What problems are there with recycling systems in the United States and developed economies?

Recycling Sources, Evidence and Deliberation (C3 Framework Dimensions 2 and 3)

Exploring the topic of recycling offers students opportunities to explore the environmental, economic, and social impacts of programs. When students analyze problems and possibilities in the recycling industry, they can move from questions like, *Should I should recycle more?*, to, *Which method of recycling is best for my community and society as a whole?* In this lesson, we present different methods of recycling (see Handout A) which teachers can use to engage students in initial deliberations about recycling. Students could answer questions such as, *In which types of recycling do you participate?*, and then discuss how particular recycling methods benefit them as a consumer, the larger economy, and the environment.

Critically thinking about recycling practices in their personal lives and local communities can also prepare students to identify solutions to problems faced with recycling practices in the developed economies. When students learn about recycling practices in conjunction with the problems of recycling (see Handout B),

students can develop a more complete understanding of the recycling industry. Teachers and students can analyze documents to explore shifts in the price of recycled material and the larger industry impacts. Teachers should also encourage students to be creative and attempt to find solutions that might alleviate pressures on the recycling industry. For example, students might point out that deposit refund systems provide an incentive (i.e., the refund) for citizens to engage in recycling that ensures the product actually is recycled regardless of market forces in the recycling industry. Students can then learn about issues with recycling (see Handout C), the different incentives for cities, waste management companies, and citizens, as well as problems with the how systems currently operate. By analyzing these factors, students should use evidence to inform their opinions and articulate solutions to current recycling problems.

Communicating Conclusions and Taking Informed Action (C3 Framework, Dimension 4)

Once students explore recycling methods and issues, they are then better able to deliberate on the compelling question, *Is recycling sustainable?* Some students might argue that recycling in its current form is too reliant upon economic forces to be an effective environmental policy and that cities and citizens must bear the financial costs to process recycled materials. Other students might counter that other recycling methods like the deposit refund system could be implemented to incentivize citizens to recycle more efficiently and frequently.

Regardless of students' position, they should use evidence to support their argument. While these deliberations can serve as summative assessments, teachers may also ask students to create videos, podcasts, or infographics that serve as public service announcements (PSAs) to summarize the issues and encourage fellow students and community members to take action on the issue.

As students formulate their responses, they can explore how they might take informed action as citizens. Students might start by investigating whether their homes, neighborhoods, and schools are engaging in wise recycling practices and methods and then contact city government officials to ask similar questions of their municipality. Students might ensure that recycling programs are equitable across these communities both in what is available and also in the distribution of any negative effects on society. As in any good inquiry, teachers should listen to students, offer support and guidance, and encourage ecological stewardship as students pursue democratic action.

Teacher Reflections and Student Performance

When I, Zackary, have taught this lesson in my high school economics class, the overall inquiry not only allowed for examination of concepts of supply and demand but also offered students opportunities to better understand how market forces can thwart environmentalism and consider possible solutions to work around them. This lesson could also be taught in any social studies classes where students investigate

local or global issues. Showing students the video in Handout C helps them appreciate the complexity of the recycling industry, and the numerous steps involved in their materials being recycled. I have used this inquiry as an introductory lesson and paired it with bell-ringer questions such as, *What surprised you about the recycling industry?* Explaining how different methods of recycling work with Handout A, and the pros and cons of each, provides my students the opportunity to more fully deliberate about how to solve problems with the recycling industry and to consider solutions beyond how they currently recycle. When discussing the issue of contamination with Handout B, I provide students with specific examples of contaminated products (e.g., greasy pizza box, disposable coffee cup with coffee at the bottom) to help them link their own prior experience to issues present in the recycling system. These personally relevant examples helped my students engage more deeply in deliberations regarding methods to improve recycling in their local contexts.

My students often report explaining to their families how to improve their recycling habits. However, my students have struggled to communicate solutions to solve problems with the recycling industry. They often seem most unsure of effective means of implementation for the solutions they devise. Teachers should be prepared to guide students to ensure that the solutions are attainable and can make a difference in the industry. For example, if students believe citizens should offer educational outreach to eliminate contamination in recycling within their communities, teachers could recommend effective

means of outreach, such as social media campaigns, or teach students how to lobby cities and waste management companies to create effective educational materials that they could distribute to citizens. If the information is available, linking this lesson with how the municipality you teach in recycles can help students to see how this issue impacts their community.

Conclusion

Ecological issues are important to many young people and investigating and deliberating about recycling offers one way into this increasingly critical topic.

The inquiry we have overviewed here provides questions and sources that can help bound an exploration into the methods, processes, and problems of recycling. We believe this lesson can help students better understand how environmental issues like recycling are social issues which require thoughtful and impassioned responses from ecological citizens. While the “Reduce, Reuse, Recycle” slogan seems rather simple, recycling practices and programs have significant ecological, economic, and social impacts. We hope this inquiry can help students move toward answering our compelling question and addressing the ecological challenges that face our planet

Handout A: Different Methods of Recycling



Source: <https://www.thetimes.co.uk/article/iceland-and-co-op-back-new-plastic-bottle-refund-machines-82mg3w8h8>



Source: <http://houston.culturemap.com/news/city-life/11-12-17-houston-curb-side-recycling-is-back-heres-how-to-find-when-pickup-will-take-place-in-your-neighborhood/>

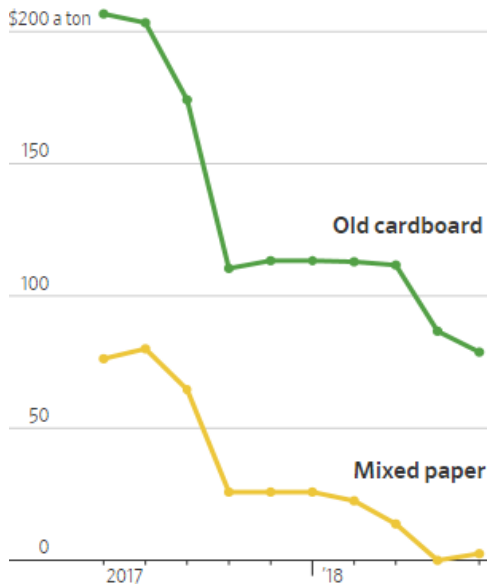


Source: <https://www.raleighnc.gov/home/content/SolidWaste/Articles/DOCenters.html>

Handout B: Issues with Recycling

There is too much supply of unprocessed recycled material.

U.S. average price for scrap paper



Source:
<https://www.wsj.com/articles/recycling-once-embraced-by-businesses-and-environmentalists-now-under-siege-1526209200>

Bales of Recyclable Waste in Seattle, WA



Source: <https://www.nytimes.com/2018/05/29/climate/recycling-landfills-plastic-papers.htm>

Contamination prevents recycling from happening.

Source: <http://reno.wm.com/recycling-facts-and-tips/>



**RECYCLE OFTEN.
RECYCLE RIGHT.**

KEEP THE DIRTY DOZEN OUT OF YOUR RECYCLING CART.

You have heard the saying, "one bad apple can spoil the bunch." The same goes for recycling. We need your help to keep the dirty dozen out of the recycling cart.



Go to RecycleOftenRecycleRight.com to learn more.

2017



RECYCLING RULES

1. RECYCLE ALL BOTTLES, CANS AND PAPER
2. KEEP ITEMS CLEAN AND DRY
3. NO PLASTIC BAGS

Handout C: Issues with Recycling



China's Waste Ban Is Causing A Trash Crisis In The U.S. (HBO)



1,643,188 views

Source: <https://www.youtube.com/watch?v=NK20t11He14>

QR Code to Scan & View Video



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WHAT SHOULD I TEACH?: SUPPORTING SOCIAL STUDIES TEACHER CANDIDATES' SUBJECT MATTER CHOICES

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Planning is an essential yet challenging practice in any discipline. Beginning our careers as social studies teacher educators soon after the release of the *College, Career, and Civic Life (C3) Framework for Social Studies State Standards* (NCSS, 2013) and its emphasis on inquiry-based instruction stemming from compelling questions, we were particularly attuned to providing opportunities for our middle-level/secondary teacher candidates to think deeply about content and equipping them with tools that would allow them to make intentional choices about content in order to create engaging, purposeful, cohesive units.

Although various factors influence teachers' curricular decisions, we focused our attention on the role of subject matter knowledge. We worked to develop a planning task that would both emphasize the importance of critical consideration of curricular decisions and provide tools that candidates could employ to build subject matter knowledge and facilitate their own intentional decision-making. This is also an investigation of our own work as teacher educators and the impact of the tools we introduce to candidates. Employing an action research design over multiple semesters allowed us to develop, implement, reflect upon, revise, and reimplement the *What Should I Teach* task to better examine the impact of our instruction on candidates' planning. Recalling our

own struggles deciding what to teach, this study prompts consideration of the ways we support our teacher candidates in their planning practices, as well as how we may be more effective in the future. Our lessons will hopefully influence other teacher educators, mentor teachers, and novice teachers to reflect on their own practices.

Review of Literature

Research suggests teachers' curricular and instructional decisions are impacted by various forces, including contextual factors, available resources, and high-stakes testing (Cunningham, 2007; Grant, 2018; Martell, 2013). Of these forces, subject matter knowledge is considered particularly influential, with numerous studies arguing that stronger subject matter knowledge leads to more effective pedagogy (Monte-Sano, 2011; Sung & Yang, 2013; Wansink, Akkerman, & Wubbels, 2016; Wineburg & Wilson, 1991). This correlation appears especially profound for novice teachers, whose limited pedagogical knowledge may make them more dependent on subject matter knowledge.

Knowledge for Teaching. Shulman (1987) defined subject matter knowledge⁷ as the "knowledge, understanding, skill, and disposition that are to be learned by school children" (p. 8-9) and empha-

⁷ Although we recognize Shulman used the term "content knowledge," we chose to use the term "subject

matter knowledge" throughout this piece because of its prevalence in the research that guided our study.

sized that teachers' subject matter knowledge shapes what content students encounter and how. Regarding novice social studies teachers, studies have found those with weaker subject matter knowledge were less likely to design learning experiences that allowed students to practice interpretive skills (Monte-Sano, 2011), were more focused on "uncontested knowledge" and more reliant on didactic instruction (McCrum, 2013, p. 78), and focused on facts because "they were afraid of teaching nonsense" (Wansink et al., 2016, p. 99). Although some argue the impact of subject matter knowledge is overstated (e.g., Cunningham, 2007), for many beginning teachers, their own knowledge seems to be a starting point for curricular and instructional decisions.

Studies consistently examined the relationship between subject matter and pedagogy, often through the lens of pedagogical content knowledge (PCK), which Shulman (1987) defined as the "blending of content and pedagogy" (p. 8) with a particular instructional context in mind. Scholars argued that teachers' selection and representation of content is dependent upon their subject matter knowledge. Teachers with limited subject matter knowledge are less able to connect isolated facts to the bigger picture (Kahan, Cooper, & Bethea, 2003) or identify and correct students' misconceptions (Ball, Thames, & Phelps, 2008). Monte-Sano and Budano (2013) identified "framing history" as an element of PCK specific to history and claimed that teachers with weaker subject matter knowledge were "unable to discern more or less critical topics that would develop students' understanding or identify alternative ways to organize the curriculum" (p. 177). They argued that "framing history" was

particularly challenging for novice teachers but that participants who experienced opportunities to deepen subject matter knowledge exhibited greater gains in PCK.

Building Subject Matter Knowledge. Due to its impact on pedagogy, candidates' subject matter knowledge is an issue teacher-preparation programs should seriously consider. One response is increased disciplinary coursework. Some studies have argued a correlation between coursework and subject matter knowledge (Grossman, 1990; Martell, 2013; Monte-Sano, 2011; Sung & Yang, 2013), but others have found that increased coursework did not lead to increased confidence (Harte & Retaino, 2015) or to better pedagogical choices (Cunningham, 2007; Kahan et al., 2003).

The contested impact of more disciplinary coursework has led others to recommend strengthening candidates' subject matter knowledge within the context of instruction, including providing time for beginning teachers to think about big disciplinary ideas and structures (Bain & Mirel, 2006; Harris, 2014) and adapting lesson planning guidelines to require candidates to clearly articulate their subject matter knowledge (Rusznyak & Walton, 2011). This study sought to examine how a researcher-designed task supported candidates' development of subject matter knowledge and the degree to which their deepened understanding influenced their selection and framing of content for an instructional unit. We hoped that by completing the task designed to broaden their subject matter knowledge in the context of planning an instructional unit, candidates would improve their own subject matter knowledge as well as make purposeful de-

cisions about content to include in their units.

Method

Action research is a systematic, intentional, and reflexive inquiry about teaching and learning (Check & Schutt, 2012; Cochran-Smith & Lytle, 1993; Mills, 2003). Short (1993) explained that specifically for teacher educators, action research allows them to examine their own teaching and its implications for themselves as well as for the broader educational field. Action research was a natural fit for us to investigate not only our own teaching practices, but also to find out whether specific practices (i.e., *What Should I Teach* task) were effective within candidates' learning. Specifically we addressed the following research questions: How do participants experience the *What Should I Teach* task? How do participants use *What Should I Teach* in relation to content choices? and Does *What Should I Teach* provide effective support as participants make content choices?

Context and Participants. Our qualitative action research study was conducted in a middle-level/secondary social studies education methods course taught by one of the researchers at a mid-size university in the South. The *What Should I Teach* task was piloted by two authors in two locations during the Fall 2016 semester; however, course scheduling limited further implementation to one location with one researcher during the Spring 2017, Fall 2017, and Spring 2018 semesters. Participants for the study were drawn from candidates enrolled in the course. Across three cycles of implementation, 17 teacher candidates agreed to participate (see Table 1). Participants worked collaboratively in order to reflect

the professional expectations in the field and to share and synthesize multiple perspectives when designing curriculum. Participants were given unit topics that were broad in order to provide for flexibility around specific content selection. Although timing varied slightly each cycle, the task was designed to be implemented across four consecutive class meetings.

Task Description and Data Sources. The study was designed to examine the influence of deepened subject matter knowledge on curricular decision making. The *What Should I Teach?* task couched the development of subject matter knowledge within the context of instructional planning. Participants ultimately developed an instructional unit around an assigned topic, but the three-phase task provided a structured experience through which participants built subject matter knowledge and made intentional decisions about the selection and framing of content for the unit. The intention was for participants to broaden their understanding of a topic and collaboratively consider the most essential aspects of the topic before making decisions about what and how the topic should be addressed with students.

The *research* phase began with participants brainstorming what they knew about the assigned topic. Participants then examined three to four instructor-provided resources highlighting a variety of mediums and perspectives less represented in traditional curriculum (e.g., oral histories of former textile mill employees, *New York Times* article examining a resurgence of textiles in the South). Participants were also required to locate an additional resource. Participants selected sources that ranged from popular

periodicals (e.g., *Washington Post* article) to historical documents (e.g., letter written by Simon Bolivar) to academic journals (e.g., article from *Yale Law and Policy Review*). These resources served as a basis for group discussion, after which participants revisited and revised their brainstorm. We added a SCIM-C scaffold (Hicks, Doolittle, & Ewing, 2018) during Cycles 2 and 3 to facilitate the resource discussion. Table 2 outlines the phases of the SCIM-C scaffold.

We selected SCIM-C because of the clear step-by-step process and also because we could adapt it for use with different types of sources and direct participants to provided videos and samples to guide their use of the tool. The *research* phase concluded when participants consulted state standards documents for final additions to the brainstorm.

The *reflection* phase was designed to reduce the temptation to move immediately to selecting instructional strategies and instead encourage participants to consider more deeply why this content matters. Participants first “zoomed-out” from the brainstorm to identify overarching themes and then organized the brainstorm into a concept map that reflected these themes. After discussing Loewen’s (2010) analogy of forests, trees, and twigs, participants pruned the concept map and crafted “students absolutely need to know ... because ...” [SANTK] statements that should convey what participants believed students most need to encounter about this topic.

In the *selection* phase, participants drew from their disciplinary resources, concept map, SANTK statements, and knowledge of teaching with big ideas

(Grant & Gradwell, 2010) and the C3 *Framework* (NCSS, 2013) to draft a compelling question that would center the unit. Participants talked within and across groups as they developed a compelling question they deemed “provocative, engaging, and worth spending time on” (Grant, 2013, p. xix). The task concluded with participants developing learning objectives appropriate for a five- to seven-day unit with explanations for how those objectives supported the compelling question. At this point, participants received substantial instructor feedback, which guided their development of a complete instructional unit that was submitted toward the end of the semester.

Data was collected across each phase for each unit topic group. Table 3 reflects the participant work products collected in each phase. Throughout each phase, the teacher researcher collected field notes of her impressions and observations during and after candidates’ in-class work time on the task. We also conducted at least one interview each cycle with each participant group. In Cycles 2 and 3, interview questions were broken up into two separate interviews. The interviews delved into participants’ experiences with and perceptions of the task.

Coding process. Throughout each semester, informal data analysis was ongoing as we collaboratively reflected on each phase of the *What Should I Teach* task; however, all formal data analysis was completed at the end of each cycle. As appropriate for action research, reflections from Cycle 1 informed revisions to the task for Cycle 2, which informed Cycle 3 (Mills, 2003). We used a five-phase analysis approach: compiling, disassembling, reassembling, interpreting, and con-

cluding (Yin, 2011). Data analysis was shaped by our research questions and themes that emerged from the data (Glesne, 2011). To ensure inter-rater reliability, we coded all data individually and then compared codes and formed consensus when discrepancy arose. We compiled codes into a data display based on emergent themes from our data sources as well as a data display based on our research questions. We employed the same five-phase analysis at the conclusion of Cycles 2 and 3 but also employed constant case comparison (Glesne, 2011), examining the data according to Cycle 1 themes and possible implications of revising the task.

Findings

Findings indicated (1) the task broadened participants' subject matter knowledge around assigned topics but inconsistently impacted their instructional units and (2) participants were influenced to varying degrees by perceived pressures of external sources of authority.

Opportunities to Expand Subject Matter Knowledge. In all three cycles, participants' subject matter knowledge around the assigned topics expanded over the course of the exercise, particularly in response to their work with additional resources. The initial brainstorm generated by the ancient Islamic civilizations group (Cycle 1) was a stark indication of their limited subject matter knowledge; it contained one word: Crusades. The voting rights and Latin American revolutions groups in Cycle 3 used their brainstorm to list what they needed to know, rather than their existing subject matter knowledge. For example, the voting rights group listed mostly questions on their brainstorm, such

as "Who? → Race, Gender" and "Qualifications? → citizenship? literacy test? poll taxes? land owner?" Their questions imply some prior knowledge informing what they needed to ask; however, they did not possess the detailed knowledge to fill in those questions initially.

In all cycles, groups worked with additional sources (provided by the instructor and gathered by participants) and then revisited their initial brainstorm to add content and reorganize into a concept map. These sources were intended to broaden and deepen participants' subject matter knowledge. While subject matter knowledge garnered from sources may or may not have made it into their learning objectives, all groups at least considered additional content from this task. Discussion of sources was especially limited in Cycle 1 (which led us to add the SCIM-C hard scaffold for source work in Cycles 2 and 3), but even then, groups considered additional content based on sources. The Cycle 1 voting rights groups, while in the end largely sticking with their initial historical progression of voting rights, added "issues with modern voting" to their concept map after a short discussion of provided sources.

Interaction with Content Sources. Participants across cycles expanded their subject matter knowledge but missed opportunities to deeply engage with the content and with one another. A general lack of collaboration and discussion of the sources was most prevalent during Cycle 1. Both groups spent no more than 15 minutes discussing the resources, and the focus of their conversations shifted quickly to concerns about planning. For example, after five minutes of resource discussion, Elizabeth asked Brandon,

"What would our topics be? I think we should start with geography." Moments later Elizabeth acknowledged their persistent subject matter deficits, "there is no way we can cover...I was going to say 'everything we know,' but we don't know anything [laugh]," but the pair's efforts to build their knowledge base remained minimal. Collaboration and discussion did improve with the introduction of the SCIM-C scaffold, and the discussion about the sources was longer with each cycle. In Cycle 3, each group spent about 60 minutes on source discussion, and each completed a SCIM-C chart for their own source in advance; however, the depths of these conversations were driven less by a collaborative discussion around the sources than by a responsibility to complete the task (SCIM-C).

Mixed Success of SCIM-C Scaffold. The decision to add the SCIM-C scaffold came from the lack of discussion and consideration of the sources that occurred during Cycle 1. Using the SCIM-C during Cycles 2 and 3 was met with some general success as participants agreed that using the SCIM-C scaffold was beneficial in analyzing and corroborating content sources. Still, the SCIM-C scaffold became a worksheet to complete instead of an impetus for discussion and critical thinking. Although the textile group in Cycle 2 saw benefit in the exercise and noted specific things that it helped them analyze (e.g., perspective), they also called the task "tedious," and there was a general expression that they were just completing the task. In Cycle 3, Julia admitted that when it came to their personal sources "we basically just summarized them to each other." Jessica found the task annoying "because I don't usually do it that way." Even when presented with

pieces of the SCIM-C that would appear to set up discussion for more critical thinking on their sources and/or content, participants did not move their discussion in these ways. Participants glossed over opportunities to allow the SCIM-C scaffold to serve their deliberation and/or their critical thinking.

Opportunities to Apply Subject Matter Knowledge. Participants showed evidence of using their broadened subject matter knowledge as part of their instructional decisions to varying degrees. While they did not always incorporate the content from these sources into their final units as much as hoped, most groups did report using the sources to enhance their subject matter knowledge and their concept maps. In Cycle 1, Tom explained their group added "more current stuff," which Skip characterized as "essentially a bonus post-it note....something that I don't really think is that needed." Even though they had conversations around these topics, few of those new ideas were included in their learning objectives.

In Cycle 2, the textiles group used the SCIM-C model to further support their source analysis. Participants reported that using the SCIM-C organizer as they analyzed the sources forced them to look more critically at the sources than they otherwise would have. Brad said,

I wouldn't have looked at the perspective or anything like that if I had just had this resource. I would just, basically, summarize what it was about, and I wouldn't have looked at who wrote it, when they wrote it, and what perspective it was written in.

Although the textiles group did use the sources and SCIM-C charts to create some

global connections, they failed to carry these ideas further into their planning.

There was clearer evidence of the impact of broadened subject matter knowledge on instructional units in Cycle 3 than in previous cycles. There were definite connections between the concept maps and the SANTK statements for each group in this cycle as groups used new content from the source work to revise the initial organization of their ideas. The textiles and voting rights groups both shifted the content of their units based on resources, with the textiles group including more focus on local industry and the voting rights group including a contemporary view on voting issues rather than historical, as was seen in Cycle 1. While the potential impact of subject matter knowledge was clear to participants, as each mentioned on pre- and post-questionnaires the degree to which subject matter knowledge can influence a teacher's decisions, most participants struggled to critically consider and apply their subject matter knowledge to instructional decisions.

Sources of Authority. The task was designed to build subject matter knowledge and expand participants' thinking about instructional decision-making. The influence of external sources of authority on their choices was apparent in each cycle. The degree to which participants considered internal sources of authority varied, with some participants incorporating their own thoughts about what to include and others prioritizing what they believed external authorities wanted them to include.

External. The most influential sources of external authority were state content standards and the professor. When explaining how he brainstormed

the facts about the topic Skip (Cycle 1) said, "I didn't know the standards associated with voting for example, so I didn't know how that was going to be incorporated into the instruction." As they pruned their concept map, Skip voiced concern about state assessments and asked "What are the odds that Voter ID laws get brought up on an EOC (end of course exam)?"

The role of state standards was even more evident during Cycle 2. According to field notes, the group made local and personal connections to the content but abandoned them in their initial learning objectives. Reading the state content standards shifted their discussion once again. The group redesigned their objectives based on the standards and explained, "the state standards really helped to get an idea of how to write it" (Brad). Within this cycle Brad also referred to the authority of the professor explaining that "our confusion really came just in the topic itself because we didn't know what time period *she wanted* us to limit it to or how *she wanted* us to go about framing textile mills in one unit" [emphasis added].

During Cycle 3, Sylvie pointed out that it "definitely helped looking at the standards and seeing what we do need — like needs to be retained." Later in the conversation, Sylvie continued,

Jessica outlined the things that she felt was really important and the things that the standards view as really important. And not lingering too long on the things that we think are important but making sure that the students get *what they need* [emphasis added].

Although sources of external authority entered participants' decision-making at

different points in the task, participants sought out external sources to direct, adjust, and confirm their choices.

Internal. Throughout the task, participants voiced significant personal connections to the content and/or the sources; however, there were varying levels of dismissing these connections in favor of other content. In Cycle 2, the textile group had numerous personal connections to the content and sources. Brad brought up that “we see and pass [mill villages] every day.” Addison recalled that the source she brought in was specific to the timeline of the textile industry in their geographic area. Still, these ideas were ultimately removed from their concept map.

The New Deal group in Cycle 3 also dismissed their own personal sources and connections to the content. Jessica disclosed that for her personal source she, “got a letter written by FDR...about hiring African Americans and ignoring anything like race...” As Sylvie and she continued to work on their instructional planning, Jessica expressed regret about the lack of full inclusion of these themes, “We have the African American perspective on there, but I still feel like you’re not really expected to go that in depth about something like that. So it’s really just kind of grazing over it.” In contrast, Julia made it very clear that within their group on the textile industry standards did not reign supreme, “I would say we did not look at the standards as defining what we taught. We looked at more of the textile industry and the stuff around it. Then we found standards that connected to it.” Although participants acknowledged forces that influenced their decision-making, they did so in a simplistic way. Most did not convey a clear awareness of the influence

of these forces on their choices or an ability to articulate the interaction among and relative importance of these forces.

Discussion

Across all three cycles, participants identified value in the *What Should I Teach* task, both its potential to build their subject matter knowledge and to positively influence their curricular choices. That said, our assessment of their engagement with the different phases of the task revealed limited impact, which leaves us wondering why.

Possibly we picked the wrong topics. We intentionally selected topics with which we believed participants would have limited prior knowledge, in part to simulate the challenge most teachers face of teaching subjects outside their comfort zone. Our study suggests that such a cognitive load, particularly for candidates with limited planning experience, is too heavy. These participants may also be unaware of or unaccustomed to the hard work necessary to build subject matter knowledge. Although participants frequently commented that strong subject matter knowledge is a necessity for social studies teachers, they did not seem particularly keen to build their own. This could be the product of inconsistent expectations and tools across the candidates’ disciplinary coursework or perceived illegitimacy of the exercise (i.e., this is a worksheet I have to do for class, not a valuable tool I would choose to use). Additionally, participants may not see the need to expand their subject matter knowledge because they can only envision one way to structure a unit around that topic. Monte-Sano and Budano (2013) identified framing history as a significant

challenge for new teachers but claimed that “helping teachers learn to frame history is not simply about giving them materials; teachers need to understand different ways of framing history and learn how to use materials to support different frames” (p. 202). We asked participants to explain an alternative way to organize the unit as part of the final product, but participants’ willingness to build their own subject matter knowledge may increase if this was emphasized earlier (e.g., pitch multiple ways to frame the unit and then develop a “study” plan based on peer feedback).

Participants’ confidence may also play a role. PCK involves making choices with context in mind – acknowledging the uniqueness of one’s situation and maximizing learning within that context. PCK requires confidence or, as Grant and Gradwell (2010) describe, ambition:

Ambitious teachers, then (a) know their subject matter well and see it within the potential to enrich their students’ lives; (b) know their students well, which includes understanding the kinds of lives their students lead, how these youngsters think about and perceive the world, and that they are far more capable than they and most others believe them to be; and (c) know how to create the necessary space for themselves and their students in environments in which others (e.g., administrators, other teachers) may not appreciate their efforts. (p. 2)

Our participants were not necessarily designing their unit with a defined ‘class’ in mind, which may have inhibited their use of PCK; however, what stood out to us more was participants’ lack of confidence in themselves. Participants seemed to dismiss personal connections to the subject matter and defer to external sources. We do not claim that teachers

should discount external authority, as there are many circumstances in which standards, disciplinary experts, and educational research should influence decision making. We acknowledge external authorities can be particularly important for novice teachers who may be struggling with the myriad demands of teaching and in need of guidance; however, we want teachers to also value the authority of their own subject matter knowledge, interests, and intuitions.

Cornbleth (2001) described climates of constraint/restraint that impact teachers’ curriculum. She outlined various external (e.g., emphasis on law and order) and internal (e.g., pedagogical pessimism) factors that prevent teachers from implementing desired curricular practices. Our participants planned in an environment that supported the development of challenging, creative curriculum, yet they seemed constrained by their assumptions of what curriculum should be. Memories of their own schooling or early clinical experiences, what Lortie (1975) called apprenticeship of observation, carried greater weight than the *What Should I Teach* task. Previous studies have identified similar struggles. McDiarmid and Vinten-Johansen (2000) found that experience with historical inquiry positively influenced participants’ subject matter knowledge and conceptions of history but often left their views of the teaching and learning of history unchanged. Martel (2013) found that even though teachers “appropriated the conceptual tools of teaching history as interpretation and historical inquiry” (p. 24), the lack of “practical tools” kept teachers from altering their instructional practices. Our study attempted to equip participants with practical tools (e.g.,

concept map, compelling question), but it is possible these tools were not effectively paired with conceptual tools and/or not sufficiently appropriated by participants. Particularly with the SCIM-C scaffold, participants did not use the tool to facilitate deeper thinking about their selected sources nor meaningful conversations with peers about multiple sources. We may need to provide more soft scaffolding around the use of SCIM-C or consider other ways to support candidates in this work. Grant (2018) notes that teachers' inexperience with innovative instructional practices can be the biggest impediment to their implementation of these practices in the classroom, so providing opportunities for candidates to experience and develop confidence with these tools is key.

Although focused on how our participants responded to the *What Should I Teach* task, the findings also prompted our self-reflection, particularly regarding our response to participants' choices. Were we unfairly labeling their choices as deferential? Could we be discounting their choices because they were not the ones we would prefer they make? Possibly, our reactions are explained less by the presence of external authority and more by the source of that authority. Cycle 2 highlights this tension. As discussed above, the group eventually developed a unit that reflected their frequently-discussed personal connections to the textile industry, but they did not feel comfortable with this arrangement until confirmed by the state standards. Would we have reacted differently to their product if they trusted their instincts from the beginning? Are we doing a disservice to our candidates (and fooling ourselves) if we attempt to dampen the importance of

standards? Are we simply assuming that standards are a limiting force instead of helping candidates leverage standards in productive ways? An underlying purpose of the study was desire for candidates to be critically aware of their decisions and the influences on those decisions. Our findings emphasize the need to further strengthen this reflection among candidates, but we might also need to be more transparent about the influences on *our* decisions.

Conclusion

As is common for action research, this study was driven by our personal experiences as teacher educators, and the task was shaped by our contexts; therefore, we acknowledge that the results of this study cannot be broadly generalized. For example, our decision to assign unfamiliar topics may underrepresent candidates' planning capacity (i.e., participants may have produced higher quality products if they were more invested in the process because they selected their own topic), making it difficult to generalize within and beyond our sample. Despite these limitations, we believe our study provides valuable insight that is relevant to our own practice and beyond, in part because it aligns with recommendations that research into teacher preparation examine the impact of knowledge, beliefs, and actions on student learning - in this case the impact of our actions on teacher candidates' learning (Cochran-Smith & Lytle, 1993, van Hover & Hicks, 2018).

Along with ways the *What Should I Teach* task could be further refined the study also emphasized how planning could be addressed beyond the formal

task. Candidates may naturally approach primary sources with a critical eye (e.g., sourcing the document), but they are less likely to critically examine curricular supports (e.g., state standards, district pacing guides). Teacher educators must help candidates acknowledge the constructed nature of curricular supports and become more aware of the influence of external sources of authority on their planning, which is an important step in providing opportunities for candidates to challenge the official curriculum (Salinas & Castro, 2010). Relatedly, teacher educators must be more transparent about our own goals. This study was designed so the professor would inject herself in limited ways as the task unfolded, in part to learn more about how participants' deeply into the reasoning participants ascribe to their decisions, and explore how participants perceive our role in their planning (e.g., facilitator versus collaborator). Additionally, several participants commented that the *What Should I Teach* task would influence future planning; therefore, follow-up studies that examine if/how participants use the three-phase process or specific tools during their student teaching and beyond would illuminate the impact of the task, especially in relation to other forms of

approached planning and to support our goal of empowering candidates to make their own curricular decisions; however, we became frustrated when participants' products did not develop in ways we hoped. If our goal is for candidates to develop intentional, well-reasoned curriculum, then how should we respond when candidates make informed choices that do not align with our preferences? Similarly, if candidates' choices do reflect our ideas, how do we ensure they are not blindly defaulting to another source of external authority – our own?

Clearly, further study would provide valuable insight into the efficacy of the *What Should I Teach* task. Future cycles of implementation may compare assigned and selected topics, delve more external authority. We hope this work inspires teachers to reflect on the ways in which they make content decisions as they create curriculum, and for mentor teachers and teacher educators to reflect on how they can best support others to do the same. Planning is a crucial, complex skill for any teacher, and this study provided the opportunity for all of us to think more deeply about how we can prepare our candidates to more confidently determine what they should teach.

Table 1: Participant summary

Cycle	Pseudonym	Grade Level	Gender	Race/Ethnicity	Unit Topic
1	Amber	Secondary	F	W	Voting Rights
	Skip	Secondary	M	W	
	Tom	Secondary	M	B	
	Brandon	Middle	M	B	Ancient Islamic Civilizations
	Elizabeth	Middle	F	H	
2	Addison	Middle	F	W	Textile Industry
	Brad	Secondary	M	W	
	Henry	Secondary	M	W	
3	Bob	Secondary	M	W	Latin American Revolutions
	Cassy	Secondary	F	W	
	Violet	Secondary	F	W	
	David	Secondary	M	W	Voting Rights
	Mandy	Secondary	F	W	
	Jessica	Secondary	F	W	The New Deal
	Sylvie	Secondary	F	W	
	Julia	Middle	M	W	Textile Industry
	Meredith	Middle	F	W	

Note. All participants are identified by self-selected pseudonyms. Gender and racial/ethnic identities correspond to how participants identified themselves throughout the course.

Table 2: Outline of SCIM-C

Phase	Description	Example Analyzing Question
Summarizing	“quickly examine the documentary aspects of the text, in order to find any information or evidence that is explicitly available from the source”	What is the subject and/or purpose of the source?
Contextualizing	“locating the source within time and space”	When and where was the source produced?
Inferring	“revisit initial facts gleaned from the source and to begin to read subtexts and make inferences”	What perspectives or points of view are indicated in the source?
Monitoring	“question and reflect upon their initial assumptions”	What ideas, images, or terms need further defining from the source?
Corroboration	“extend and deepen their analysis through comparing the evidence gleaned from each source”	What similarities and differences between the sources exist?

*Note: See www.historicalinquiry.com/#part2 for additional information about SCIM-C.

Table 3: Participant work products from *What Should I Teach* task

Phase	Data Source Title
Prior to the task	Pre-Questionnaire
Research	Initial Brainstorm Resource Discussion SCIM-C* Extended Brainstorm
Reflection	Concept Map Students Absolutely Need to Know Statements
Selection	Compelling Question Learning Objectives
After the Task	Post-Questionnaire

*Note: The SCIM-C scaffold was completed during only Cycles 2 and 3.

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TEACHING DACA WITH DOCUMENTARY FILM

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Within the first few months of taking office, President Trump issued executive orders to ban travel from some predominately-Muslim countries, halted the U.S. refugee program temporarily, and rescinded the Deferred Action for Childhood Arrivals (DACA) program. The Trump Administration has also sought legislative support to build a wall between the U.S. and Mexico. Concurrently, changes in news media delivery have made exposure to inaccurate information more common and difficult to identify (Kahne & Bowyer, 2017), often resulting in widespread circulation of misinformation related to immigration trends and policies in the United States. Recent executive orders have created frequent changes to immigration policy and contributed to the increasingly difficult task of locating accurate news media. Given these changes, in this article, we describe how to use documentary film clips to teach a key immigration policy, DACA. First, we describe what DACA is, how it is being challenged, and how utilizing documentary films will increase students' engagement with this current event. Next, we recommend and describe two films that feature DACA prominently. Finally, we present a C3 inquiry, framed through the Inquiry Design Model (IDM) around the question, "What should be the future of DACA?"

DACA was established by the Obama Administration in 2012. It allows some people who entered the country as minors without documentation to receive

deferred action on deportation as well as renewable work permits. DACA does not create a path to citizenship. Of the estimated 1.7 million people who were eligible to enroll (Passel & Lopez, 2012), about 800,000 enrolled overall and about 690,000 people were enrolled at the time the Trump Administration rescinded the program. The Trump Administration stopped accepting applications (applications must be renewed every two years) and gave Congress six months to develop alternative legislation (Gustavo & Krogstad, 2018). Meanwhile, judicial rulings have upheld DACA being rescinded while Congress works towards an alternative.

As DACA is debated in the courts and between the branches of government, media reporting of immigration has been skewed, making it even more difficult for an informed citizenry to engage this topic. For example, news coverage of immigration rarely addresses the immigration policies that make it impossible for migrants from some countries to enter the US legally (McBrien, 2017). Given the limitation of media reporting about immigration and DACA, teacher educators can utilize documentary films to increase students' content knowledge of social issues and current events (Buchanan & Hilburn, 2016; Journell & Buchanan, 2013; Parkhouse, 2015).

Using Documentary Film to Examine Social Issues

Documentary film has been shown to elicit and maintain student interest and engagement more effectively than traditional teaching methods like lectures (Marcus et al., 2010; Marcus & Stoddard, 2009). Additionally, using film as a medium may also be more comfortable for teachers who are hesitant to broach this issue without a central text to reference. Watching a film excerpt or series of excerpts can provide a common experience for all students as they begin to discuss related news, controversies, and family histories (Russell, 2012); this often results in more productive and thought-provoking discussions than print text-based discussions.

Many classroom teachers find the teaching of social issues to be contentious and often report avoiding them with their students. Teachers offer various reasons for avoiding controversial topics, including their perception of teacher disclosure and neutrality on issues (Hess, 2009; Journell, 2016), personal beliefs about what is developmentally appropriate (James, 2008) or whose perspectives ought to be presented in the curriculum (Mayo, 2016), and at the elementary level, a fear of conflict with students' families (Buchanan, Tschida, Bellows, & Shear, 2019). Social issues are often regarded as hot button topics outside of the classroom, too, and as a result, are considered controversial in most spaces, not just the classroom. Further, instances of "fake news" surrounding social issues often increase tensions and further division around already difficult topics (Journell, 2017). While scholarship has identified the most common reasons that teachers avoid contentious topics, avoidance is not the answer. Despite perceived difficulty in

teaching contentious topics, the social studies curriculum is laden with social issues, often rights issues, like immigration, that are essential to understanding our world and the experiences of those around us. Positioning social issues as central to social studies instruction prioritizes opportunities for children and adolescents to engage with others, likeminded and not, around topics that affect the lives of individuals and groups every day. Immigration is a longstanding controversial social issue in the United States, only increasing in divisiveness since the 2017 Presidential Executive Order and, more recently, the separation of children from families crossing the U.S. and Mexico border without paperwork.

Documentaries often present "counter-stories" of immigration experiences, perspectives that challenge popular narratives and provide viewers more nuanced views of immigration than is typical in the news media (Stoddard, 2013). The best documentaries are built upon primary and secondary sources and typically focus on actual lived experiences, rather than generalized (or possibly romanticized) immigration stories embedded within fictional storylines typical of feature films. For these reasons, documentary film is often a stronger classroom text than many feature films. Importantly, documentaries are not expected to hold to a journalistic standard of balance. Thus, students are invited to analyze the filmmakers' motives and perspectives and to evaluate the documentary similar to a historical document (Hess, 2007). As Stoddard & Chen (2017) argued, viewers should consider documentaries as a "product of both time and producer, to consider the

evidence used to help make the producer's narrative, and to reflect on how exposure to the film influences one's own views on the issue" (p. 420).

Documentary film can be a powerful vehicle for illustrating the lived experiences of undocumented adults and youth as they navigate the immigration system, deliberating the problems with our immigration system, and developing potential immigration reform solutions. Two excellent documentaries to help teach students about DACA are *Documented* (Vargas, 2013) and *Underwater Dreams* (Mazzio, 2014). These films are (a) critically acclaimed, (b) provide first hand experiences with DACA from the perspective of undocumented youth navigating immigration policy, and (c) both films focus, in part, on the role of teachers and schools. Below, we suggest specific film clips to educate students about DACA, followed by an IDM lesson plan that suggests ways to utilize these films to teach DACA.

Documentary 1 - *Documented* (2013)

Documented shares the story of Pulitzer Prize-winning journalist Jose Antonio Vargas, an undocumented immigrant living in the United States. Vargas was brought to the United States from the Philippines as a child by his grandparents. Vargas, an immigration activist, details his experiences without authorized papers while walking viewers through the complicated immigration process. A poignant scene in *Documented* is the footage of Vargas as he listened to President Obama announce DACA and its guidelines, realizing that the age limit would make him ineligible to enroll in DACA. A more comprehensive overview

of the film project can be found at <http://documentedthefilm.com/>

For teachers who would like to screen specific clips from *Documented* related to DACA, we suggest the five segments included in Table 1.

Table 1. *Documented* Suggested Clips

Time Stamp	Description
5:32-8:30	Revealing undocumented status: In this scene, Jose discloses his undocumented status. A conversation with his close friends help drive home the point that there is no process to "just become documented" for Jose.
16:00-17:00	The statistics: Jose travels around the country giving lectures about immigration. The statistics he shares can be eye opening.
25:44-29:00	A trip to the DMV and the solace of school: Jose shares how he discovered he was undocumented when he went to apply for a driver's license. He was so angry with his family at the discovery, that school was the only place that he felt comfortable.
45:00-47:00	The US immigration process: Jose walks the audience through a citizenship application. This helpful exercise again shows how there is no structural process currently in place for Jose to become American.
53:21-56:30	Deferred Action for Childhood Arrivals: This powerful clip shows Jose's reaction when the Obama administration was rolling out the plan for DACA and how Jose is over the age limit to qualify.

Documentary 2 – *Underwater Dreams* (2014)

Underwater Dreams chronicles a high school robotics team's victory at a national robotics championship. The team was primarily composed of undocumented immigrant youth who, throughout the documentary, tell their stories of immigration to the United States. The roles and limitations of PK-16 school and family hardships are discussed by the youth, their families, and the team coaches, and each of the team members report on their lives several years after the competition. The film also chronicles the advocacy work of students at the high school, particularly work organized around immigration reform. A more comprehensive overview of the film project can be found at <https://www.underwaterdreamsfilm.com/>

For teachers who would like to screen specific clips from *Underwater Dreams* related to DACA, we suggest the seven segments included in Table 2.

C3 Lesson Plan

At the beginning of the lesson plan, teachers may want to describe what DACA is, what it aims to do, how the Trump Administration has sought to end DACA, and provide a timeline of implementation of DACA up to the present.

The College, Career, and Civic Life (C3) Framework is a vision of social studies education founded on inquiry. It contains four dimensions which “center on the use of questions to spark curiosity, guide instruction, deepen investigations, acquire rigorous content, and apply

knowledge and ideas in real world settings to become active and engaged citizens in the 21st century” (NCSS, n.d.).

Table 2. *Underwater Dreams* Suggested Clips

Time stamp	Description
2:52-3:45	Introduction: A quick summary of how the students came to the engineering competition.
11:15-13:30	Coming to US: This clip shares the students' and their parents' memories of crossing the border.
23:00-24:30	Navigating school while undocumented: Like Jose in <i>Documented</i> , school was a place of comfort and aspiration for the students in the competition.
40:00-44:00	Competition results: The students from Carl Hayden, who were predominantly undocumented youth, won the robotics competition; includes dialogue from audience members and teachers discussing expectations for immigrant students.
55:00-56:00	School reflections: Undocumented students discuss the importance of teachers.
58:00-1:03:00	Where did they end up: This clip shows where the students who won the competition ended up several years later.
1:03:28-1:06:42	Social action: Graduates from the school engage in activism.

The crux of the *C3 Framework* is the Inquiry Arc, which encourages students to consider compelling questions, use disciplinary concepts and tools to evaluate relevant sources/evidence, and ultimately

form conclusions that lead to taking informed action about the inquiry under study. While straightforward in theory, implementing the various components of the Inquiry Arc is complex in practice (Journell, Friedman, Thacker, & Fitchett, 2018).

The Inquiry Design Model (IDM) offers a structured approach to navigating the Inquiry Arc (Grant, Swan, & Lee, 2017). An essential feature of the IDM is vertical alignment; students start with an overarching, compelling question that frames the inquiry, and the supporting questions and sources are designed to help students answer the compelling question. As a final step, students use their new knowledge in a productive way that extends beyond the classroom context.

It is important to note that the IDM is not rigid in its implementation. There are a variety of factors (e.g., time, curricular constraints, students' reading levels) that can affect the depth to which teachers can allow students to explore a single inquiry. Teachers can choose to modify the IDM and develop a focused inquiry that keeps the compelling question but streamlines the supporting questions and sources so that students are engaged in a narrower inquiry that fits within the practical constraints often found in K-12 classrooms (Swan, Lee, & Grant, 2018). So, while the inquiry that we present in this article is illustrative of a full IDM-based lesson that could span multiple class sessions, readers should feel free to adapt the lesson to meet their specific needs.

The Inquiry Design Model (IDM) has three central elements: questions,

tasks, and sources (Swan, Lee, & Grant, 2018). Table 3 outlines an IDM lesson that examines DACA and immigration reform in the United States. We agree with Swan, Lee, and Grant (2018) that the most important work is what happens between the compelling question work and the summative argument. This inquiry is designed for learners in grades 6-12.

Conclusion

Teaching contentious public issues like DACA can be daunting, particularly in this current political climate. Students too often approach these issues in the abstract, parroting talking points gleaned from cable news or social media, which is problematic for issues that affect members of marginalized communities. The use of documentary film can serve as a way of humanizing such issues and, as evidenced in the IDM lesson above, help students gain a more nuanced understanding that will hopefully lead to them making informed conclusions. Although we chose to focus on DACA in this article, documentary films can be used in a similar fashion to address any number of controversial issues (e.g., Buchanan, 2016; Garrett, 2011; Heppeler & Manderino, 2018). Given the increasing accessibility of documentaries on streaming platforms like Netflix, we believe they should become a more prominent instructional resource in K-12 social studies education.

Table 3. DACA Inquiry

Compelling Question		
What should be the future of DACA?		
Standards and Practices		
<p>D1.5.9-12. Determine the kinds of sources that will be helpful in answering compelling and supporting questions, taking into consideration multiple points of view represented in the sources, the types of sources available, and the potential uses of the sources.</p> <p>D2.Civ.12.9-12. Analyze how people use and challenge local, state, national, and international laws to address a variety of public issues.</p> <p>D2.Civ.13.9-12. Evaluate public policies in terms of intended and unintended outcomes, and related consequences.</p> <p>D3.4.9-12. Refine claims and counterclaims attending to precision, significance, and knowledge conveyed through the claim while pointing out the strengths and limitations of both.</p> <p>D4.1.9-12 Construct arguments using precise and knowledgeable claims, with evidence from multiple sources, while acknowledging counterclaims and evidentiary weaknesses.</p> <p>D4.3.9-12. Present adaptations of arguments and explanations that feature evocative ideas and perspectives on issues and topics to reach a range of audiences and venues outside the classroom using print and oral technologies (e.g., posters, essays, letters, debates, speeches, reports, and maps) and digital technologies (e.g., Internet, social media, and digital documentary).</p>		
Staging the Question		
<p>Show a clip from President Obama’s speech from the White House Rose Garden announcing the executive decision to create DACA. (about 3 minutes) Link – https://www.youtube.com/watch?v=Hz4MMY76fu8</p>		
Supporting Question 1	Supporting Question 2	Supporting Question 3
What possible reasons exist for upholding or expanding DACA?	What possible reasons exist for repealing DACA?	What other solutions have been or could be proposed?
Formative Performance Task		
Respond to the films using a viewing guide [see Appendix].	Respond to the films using a viewing guide.	Summarize four proposed solutions in bullet format and make a pros/cons list for each proposal.

Featured Sources		
Source A: Scenes from <i>Documented</i>	Source A: Scenes from <i>Documented</i>	Source A: NPR article – <i>Here are four options Congress could take on DACA</i> https://www.npr.org/2017/09/06/548766330/here-s-how-congress-could-act-to-save-daca
Source B: Scenes from <i>Underwater Dreams</i>	Source B: Scenes from <i>Underwater Dreams</i> Source C: New York Times Article – <i>The Right and Left on Trump’s DACA Decision</i> https://www.nytimes.com/2017/09/05/us/politics/right-and-left-opinions-on-daca-dreamers.html	Source B: New York Times Article – <i>The right and left on Trump’s DACA decision.</i> https://www.nytimes.com/2017/09/05/us/politics/right-and-left-opinions-on-daca-dreamers.html
Summative Performance Task		
<p>Argument: Organized into four-person teams, students will form ‘advocacy groups.’ Each group will take a position on the future of DACA by answering the Compelling Question – <i>What should be the future of DACA?</i></p> <p>Extension: The ‘advocacy groups’ will take several actions to promote the strengths of their positions by selecting and completing three assignments from the following list:</p> <ol style="list-style-type: none"> Design a political cartoon to promote your position or highlight weaknesses in the opposition’s position. Write 10 Tweets to share why your position is the best approach for the future of DACA. Draft a political speech in favor of your position. Deliver the speech to the class or record and upload to YouTube. Design a physical or digital political poster to promote your position. Publish a 30-second television advertisement to promote your position. Create a cause-effect graphic organizer to demonstrate several likely consequences if your position were to become law. Identify 3 news sources (articles, videos, or documentaries) related to DACA. Then, identify biases or misinformation that is included in each of your news sources. 		
Taking Informed Action		
Student ‘advocacy groups’ will email their summative performance task to the Representative whose position most closely matches their own (see NPR story for list of representatives).		

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Appendix
Film Viewing Guide

What quotes, footage, or scenes were most powerful? Why?	What reasons exist for keeping or extending DACA?	What reasons exist for repealing DACA?
What parts of the film confirm what you already know or believe?	What new knowledge did you gain from watching the film?	What questions do you have about DACA?