



Exploring Middle School Students' Agency in an Integrated Social Studies Unit

Bolaji Bamidele, Kristin Searle, Mengying Jiang, Michaela Harper, Kylie Bell, Waqas Ahmad, Emma Griffin
bolaji.bamidele@usu.edu, kristin.searle@usu.edu, mengying.jiang@usu.edu, michaela.harper@usu.edu,
kylie.bell@usu.edu, waqas.ahmad@usu.edu, a02367439@usu.edu
Utah State University

Abstract: This study explores how middle school students express agency in an integrated social studies unit designed to foster critical thinking and sociopolitical critique. Centered on why treaties still matter for Indigenous peoples today, the curriculum utilized the lens of food sovereignty to make abstract ideas more concrete and to connect to students' lives. Findings reveal students performing expert and investigator roles, which empowered them to reflect on the implications of limited food access and to imagine future social change. This research contributes to understanding student agency in social studies education and provides practical implications for designing curricula that support student agency and critical thinking.

Introduction

Research in the learning sciences has highlighted the value of centering student voices and agency in learning across disciplinary contexts. With a few notable exceptions (e.g., Sheridan, Zhang, & Konopasky, 2022), much research on student agency has focused on science and mathematics contexts (e.g., Barton & Tan, 2010; Gyles, 2024). Here, we are interested in how students enact critical agency by using “the knowledge, practice, and context” (Barton & Tan, 2010, p. 195) of a particular discipline, social studies, to support their identity work and engagement in sociopolitical critique. We designed a middle school social studies unit about why treaties are still relevant for Indigenous peoples in the United States. By integrating hands-on computing projects and centering Indigenous perspectives, we were able to design a curriculum that encouraged students to bring their lived experiences into the classroom and provided opportunities for them to engage in complex sociopolitical issues from multiple perspectives (Anderson & Day, 2005; Searle et al., 2023). While a traditional social studies curriculum may limit students' capacity for agency, an integrated social studies unit like the one we designed embeds hands-on projects and plans for taking social action into the unit, allowing students to exercise critical agency, promote a deeper connection to social studies, and apply what they have learned to their communities (Epstein, 2013). We implemented the designed curriculum in a sixth-grade classroom in a rural middle school in the Intermountain Western United States over a period of four weeks in Fall 2023. We then sought to understand how students developed and expressed critical agency within the context of the integrated social studies unit. With this in mind, we ask, how do students develop and express critical agency during an integrated social studies unit?

Background

We take a sociocultural approach to agency in the context of social studies education. We acknowledge that agency is interactive, emerging from the interaction between pedagogical structures (social studies curriculum) and students. Mallya et al. (2012) describe agency as the “realized capacity” of students to utilize their content understandings to “purposefully and reflectively” make decisions and take actions in their everyday lives with the aim of “transforming themselves and others and/or the conditions of their own or others lives” (p. 248). Drawing from Mallya et al. (2012), our description of agency extends beyond the students engaging with the content in the classroom to students realizing the value of content for transforming their own lives and their communities. Hence, we like to think of agency as the capacity of students to engage in social studies knowledge, practices, and activities within the classroom as tools to transform their lives and communities beyond the content and classroom (Mallya et al., 2012). Scholars have identified that students learn history and social studies more effectively through practicing the discipline than they do by reading texts. Such disciplinary practice is a crucial way of understanding humanity from the past and experiencing civic life (Levinson & Levine 2003), but students often struggle to interpret history deeply beyond their lived experiences (McAnulty & Garrett, 2022; Seixas 1993; Wineburg 2010). For example, McAnulty & Garrett (2022) found that students spoke as informed commentators and experts on subject knowledge but could not see their personal lives in the political and social issues being discussed and, at other times, discussed their personal lives without being able to connect them with social issues. This is because the social studies classes rarely position students as implicated citizens and producers (Kent 2003;

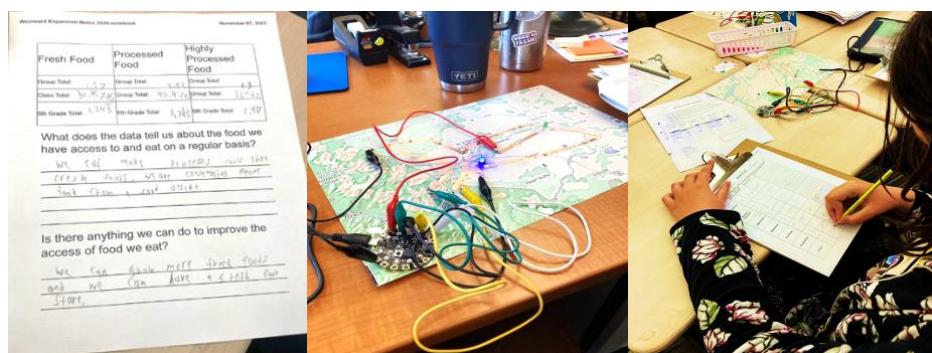
Nye 2011), and the social studies curriculum is not designed to marry students' lived experiences with history in a way that reveals the continuity of the past in the present (Dover et al. 2016; Seixas 1993; Wineburg 2010). We argue that a focus on developing students' critical agency (Barton & Tan, 2010) via an integrated social studies curriculum may not only support students in gaining historical understandings and learning about civic responsibilities but also support students engaging in critical thinking and/or imaginative rethinking (Anderson & Day 2005; Nye 2011), which positions students for active citizenship now and in the future.

Study design and method

Curriculum design: Food is connected to land, land is connected to food

As part of a larger project focused on integrating computer science, social studies, and education about Indigenous peoples, known as Indian Education For All, we designed an integrated middle school social studies unit focused on why treaties still matter for Indigenous peoples today (Searle et al., 2023). This unit was designed in collaboration with the Indian Education For All team at the Montana Office of Public Instruction and was reviewed by a team of experts, including two social studies educators, prior to implementation. Importantly, Indian Education For All runs counter to dominant historical narratives that support White, European perspectives and settler colonialism (Stanton & Morrison, 2018). Instead, it centers on Indigenous perspectives and narratives (Montana Office of Public Instruction, 2024). The unit was designed to be culturally responsive by encouraging student voice and agency, connecting to students' family and community-based knowledge, and encouraging sociopolitical critique (Kapor Center, 2021). Students began by learning about the cultures and governance structures of the two tribal nations that share the nearby reservation. Then, students focused on vocabulary related to sovereignty, governance, and treaties with a focus on Indigenous empowerment. Because sovereignty and treaties can be abstract concepts to grasp, we leveraged food sovereignty and efforts by Indigenous communities to promote their own food sovereignty and food security as a way of making these ideas concrete. Students created food access maps to show the distance individuals living on reservations had to travel to reach grocery stores (See Figure 1). Students used copper tape, LED lights, and programmable microcontrollers to create and program these maps. To further enhance students' understanding of food access, students tracked their own consumption of unprocessed, processed, and highly processed foods over the course of one week. Finally, students created a community service action plan to address food security and food sovereignty in reservation communities and in their own towns.

Figure 1
(L) Food tracker worksheet (M) Food access map (R) Reservation food access worksheet



Context and participants

Tiger Middle School (TMS, a pseudonym) is a rural middle school in the Mountain West region of the United States, serving approximately 400 students in grades 6-8. While the school's student population is predominantly white, it also serves Latino and Native American students. In the fall of 2023, a social studies teacher at TMS, Mr. Wilson, implemented the curriculum with six classes of sixth graders over a period of 4 weeks. Each class period was 45 minutes long, and students engaged in the curriculum for 19 instructional days. Approximately 120 students participated in the curricular implementation, and 64 consented to be part of the research study. Most classes had at least one Indigenous student, and several classes had four or more Indigenous students. Here, we focus on the teacher, Mr. Wilson, and the students who agreed to be interviewed. Students were selected for



interviews in consultation with Mr. Wilson to reflect a range of abilities and lived experiences, as well as a mix of demographics. All names used in this paper are pseudonyms.

Data collection and analysis

We focus on transcripts of two classroom sessions, student work from those sessions, and student reflective interviews pulled from the larger design-based research study data. We chose to examine these two sessions because students engaged in project work during them. We observed students exercising their agency, and they best demonstrated their capacities to act and think critically about food sovereignty. To enable us to answer our research question about how students develop and express critical agency during an integrated social studies unit, classroom recording, and interview data were transcribed using a transcription service and then corrected by a research team member for accuracy. Transcripts were coded using an inductively created codebook. The team met regularly to agree on codes. Codes were then categorized and further developed into themes. For this paper, two themes are reported in the findings below.

Findings

Agency through 'expert' role

As part of the unit's focus on food access and food sovereignty in Indigenous communities, students tracked their own consumption of fresh, processed, and highly processed foods over the course of one week and then converted that information into data that could be analyzed and interpreted at individual, classroom, and grade levels (see Figure 1). Initially, students struggled to categorize what they ate into the appropriate categories, but over the course of the week, students began to demonstrate expertise around different categories of food and their nutritional value. The students took an expert stance by deploying their mathematical and research skills to aggregate results of the entire sixth grade's food consumption and by interpreting these results. Mr. Wilson opened up a discussion amongst the students about the results of the data they generated through their week of food tracking. The following conversation ensued between Mr. Wilson and the students after they had discussed the results in their small groups.

Mr. Wilson: I know these conversations are interesting. So, you had a conversation, say that one more time.

Student: It shows that we're eating more highly processed food and processed food than fresh food.

Mr. Wilson: We are consuming more highly processed food and processed food. What is that going to do to our society if that's all we're really consuming? What's that?

Student: [inaudible]

Mr. Wilson: Okay? It might affect our performance academically in school, or sports.

Student: We should lower the price of fresh food because, usually organic food is really expensive

Mr. Wilson: How many of you noticed that you go into the store sometimes and you go down the fresh produce and you're trying to just get an apple like I love Honey Crisp apples, it costs like \$2.50 for an apple, and then [you] go down the chip aisle, and cookie aisle, and I could get a whole bag of chips, or a package of cookies for less than it costs to get an apple. Right? So Kris what did you say we need to lower, what?

Kris: The price of fresh food.

Mr. Wilson: Go ahead, write that down.

Here, we see how students demonstrated their understanding of the class food tracking data through their comments about their own food consumption patterns and their understanding of the cost of fresh food. Importantly, the teacher built on a student's contribution to the conversation about the cost of fresh food by making a comparison between the price of an apple and the cost of chips or cookies, which are cheaper than the price of an apple. In this way, the teacher further positioned students as experts and made clear that he valued their experiences, contributions, and perspectives in the classroom. Furthermore, students' active engagement in the food tracking data enabled youth to examine their daily consumption critically. Asked what they liked about the social studies unit in a group interview, a student responded, "I like learning about the nutrition of food and tracking our food. I didn't realize how unhealthy I was eating until I did that. (Rowan, reflective interview). These



responses revealed that students not only comprehended the lessons on food tracking and nutrition but also utilized the knowledge in reflecting on their personal consumption of fresh and processed foods.

Agency through 'investigator' role

Students positioned themselves as investigators of food access by creating circuitry maps to examine the distances between the center of tribal reservations in Montana as defined by Google Maps and grocery and convenience stores. Students investigated the availability of grocery and convenience stores in the seven reservations in Montana. These were first documented in their worksheet and further demonstrated by creating circuitry maps (see Figure 1). They assigned a port on the microcontroller, beginning with the closest to the center of the reservation and moving out from there. Students then built paper circuit maps that showed where food was accessible in various reservation communities and classified these communities as either having or lacking food access (see Figure 1). Each reservation's access to convenience stores and grocery stores was shown with different LED lights in different colors corresponding to the number of stores in a given location. At the end of this project, students identified four of the seven reservations as having very limited access to food.

Supported by the circuitry map tool, students were able to visualize the reservations in a way that connected to them and investigate possible options for making food accessible to the reservations with less food access. We note here that some teams struggled with some of their materials, such as laying down their copper tape strips, but they learned how it worked. Beyond the artifacts students produced, some considered investigating reservation food access as their favorite part of the curriculum. In a reflective interview at the end of the unit, one student commented, "My favorite part was probably researching about the reservations and how food sovereign they are. And if it's a food desert and just their independence." While the student uses the term food desert (a term their teacher sometimes used) to refer to some of the reservation communities that lacked food access, the emphasis of the student's response is on learning about food sovereignty and how tribal nations are able (or could be able) to provide healthy and culturally appropriate foods grown in sustainable ways for their members. The exercise also enlightened students about reservations other than the one closest to their immediate communities. Through taking on an investigator role and collecting data about food access, students were able to identify food access as an important issue related to the sovereignty of tribal nations.

Discussion and implications

We contribute to conversations surrounding transformative social studies education, which involves young people taking informed actions and practicing civic life. Our study suggests that middle school students have the capacity to engage in social and political issues when engaged in an integrated curriculum that centers student voice and agency. Such curriculum not only gives students some level of control and room for thinking critically (Mallya et al., 2012) but also positions students as powerful members of the community, who can envision a change in their personal lives, classroom environment, and world. Centering agency in curriculum design connects students' lived experiences to the socio-political issues of the present (Seixas, 1993). Hence, for curriculum designers and educators, our work needs to center and recognize students' budding expertise, acknowledging them as constructors of knowledge, contributory and legitimate community members (Seixas, 1993). Researchers need to explore teachers' critical role in implementing these curricula. Teachers' understanding of the unit and their acceptance of its dynamism are both crucial to the success and expression of students' agency (Leonard & Sentance, 2021). These can be addressed by creating professional development programs for teachers on agency-centered social studies pedagogy.

References

Anderson, C., & Day, K. (2005). Purposive environments: Engaging students in the values and practices of history. *Higher Education*, 49, 319-343.

Barton, A. C., & Tan, E. (2010). We be burnin'! Agency, identity, and science learning. *The Journal of the Learning Sciences*, 19(2), 187-229.

Dover, A. G., Henning, N., & Agarwal-Rangnath, R. (2016). Reclaiming agency: Justice-oriented social studies teachers respond to changing curricular standards. *Teaching and Teacher Education*, 59, 457-467.

Epstein, S. E. (2013). Independent voices, social insight, and action: An analysis of a social action project. *The Journal of Social Studies Research*, 37(3), 123-136.

Gyles, S. A. (2024). Designing for Critical Science Agency in a Community-Based Science Curriculum. *Education Sciences*, 14(8), 883.

Kapor Center. (2021). Culturally responsive-sustaining computer science education: A framework. https://www.kaporcenter.org/wp-content/uploads/2021/07/KC21004_ECS-Framework-Re



Kent den Heyer (2003) Between Every “Now” and “Then”: A Role for the Study of Historical Agency in History and Citizenship Education, *Theory & Research in Social Education*, 31:4, 411-434, DOI: 10.1080/00933104.2003.10473232

Leonard, H. C., & Sentance, S. (2021). Culturally-relevant and responsive pedagogy in computing: A Quick Scoping Review. *International Journal of Computer Science Education in Schools*, 5(2), 3-13.

Levinson, M., & Levine, P. (2013). Taking informed action to engage students in civic life. *Social Education*, 77(6), 339-341.

Mallya, A., Mensah, F. M., Contento, I. R., Koch, P. A., & Barton, A. C. (2012). Extending science beyond the classroom door: Learning from students' experiences with the Choice, Control and Change (C3) curriculum. *Journal of Research in Science Teaching*, 49(2), 244-269.

McAnulty, J., & Garrett, H. J. (2022). Positioning students for political discussions: Attending to the mode of address. *The Journal of Social Studies Research*, 46(2), 101-110.

Montana Office of Public Instruction. (2024). Essential understandings regarding Montana Indians.

Nye, A., Hughes-Warrington, M., Roe, J., Russell, P., Deacon, D., & Kiem, P. (2011). Exploring historical thinking and agency with undergraduate history students. *Studies in higher Education*, 36(7), 763-780.

Searle, K. A., Rogowski, A., Tofel-Grehl, C., & Jiang, M. (2023). A Critical Computing Curriculum Design Case: Exploring Tribal Sovereignty for Middle School Students. *Journal of Computer Science Integration*, 6(1): 8, pp. 1-14

Seixas, P. (1993). Historical understanding among adolescents in a multicultural setting. *Curriculum Inquiry*, 23(3), 301–327.

Sheridan, K. M., Zhang, X., & Konopasky, A. W. (2022). Strategic shifts: How studio teachers use direction and support to build learner agency in the figured world of visual art. *Journal of the Learning Sciences*, 31(1), 14-42.

Stanton, C. R., & Morrison, D. (2018). Investigating curricular policy as a tool to dismantle the master's house: Indian Education for All and social studies teacher education. *Policy Futures in Education*, 16(6), 729-748.

Wineburg, S. (2010). Historical thinking and other unnatural acts. *Phi delta kappa*, 92(4), 81-94.

Acknowledgments

This material is based on work supported by the National Science Foundation under Grant No. 2031279. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.