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Navigating Contentious Times in Rural Education: An Introduction to Volume 11, Issue 2 of *TPRE*

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In this introductory article to the special issue, the guest editors situate the articles of the issue within the current contentious climate surrounding critical race theory (CRT). They first provide a background and summary of the major tenets of CRT then apply those tenets to current legislation aimed at banning CRT in schools. They then situate the current backlash against CRT within a history of resistance to racial justice efforts in schools. The editors explain their stance on the current issue of CRT and then substantiate their position with evidence from the articles within the special issue. The conclusions they draw are that CRT is a valuable and applicable theoretical tool in schools and education research.

Keywords: critical race theory, controversial issues, diversity, equity, inclusion, rural education

At the beginning stages of preparing this special TPRE issue focused on Equity, Inclusion, and Diversity, we could not have anticipated the vitriol with which those very goals would become under attack in the nation's public schools. Since the time of our original call for submissions (Fall 2020), twenty-seven states have either introduced bills or taken steps to limit how teachers discuss race and/or racism. Twelve states have fully legislated or otherwise enacted these censures (Education Week, 2021). Additionally, many local school districts have also introduced or instituted a censure on a slew of equity-oriented educational concepts. The centralized focus of the attacks has been critical race theory (CRT) however the reach of censorship has included anti-racism, social emotional learning, implicit bias, and even the inclusion of diverse curriculum and diverse perspectives. In our own state of North Carolina, HB324 has passed the state's House and Senate with an intent to ban CRT (Hui, 2021a; Rebash, 2021). Particularly related to TPRE is how this coordinated assault has been taken up in rural schools. In Craven County, county commissioners

voted in favor of a resolution banning the teaching of critical theory in schools (Jenkins, 2021). In nearby Johnston County, a local school board adopted an anti-CRT policy in order to negotiate more funding from county commissioners (Hui, 2021b). Given the heightened attention these concepts are being given in rural education and the important role they play in equity, inclusion, and diversity, we will begin this issue by providing a brief overview of some of the important concepts from CRT, which is drawing the most amount of controversy. We will then situate the censure of these ideas within a history of backlash against racial justice progress in the nation's schools. Finally, we will introduce readers to the selected articles for this special issue, utilizing critical concepts to highlight their importance and connect them to the long, though not always linear, progress toward social justice in rural education.

What is Critical Race Theory?

CRT is a field of study that originated in legal scholarship and has since extended to many fields, including education (Solorzano & Yosso, 2002). It

is an evolving framework that has developed a number of key tenets to better understand the endemic nature of racism in U.S. society and institutions and analyze why institutional racial remedies are usually so ineffective at addressing systemic racism and racial disparity. While the number of key tenets is not standardized and shifts somewhat from author to author (Bridges, 2018), there are several that appear across the foundational texts. First, and perhaps most central is racial realism. Racial realism posits that racism is not only a foundational aspect of U.S. society but also that it will permanently be so (Bell, 1992; Brown & Jackson, 2013). Second, and related to racial realism, is the principle of interest convergence, which states that U.S. society will only accommodate certain forms of equity for people of color when the interest of whites is also served (Bell, 1980), i.e. when the material interests of white people and the power of whiteness as a racial category are also maintained. Both racial realism and interest convergence help CRT scholars examine the economic and material deterministic aspects of racism, i.e., of how racism does not merely reside in discourse and dispositions but in a social structure that regulates the investment and divestment of resources according to race and white supremacy.

Third, is a critique of liberalism. Classic liberal ideology interprets social institutions such as education as inherently fair, meritocratic, and raceneutral (Delgado & Stefancic, 2017). Therefore, any racial disparity that occurs within systems like education is anomalous, and the result of either individual bad actors or the fault of the victims of racism themselves. Liberal ideology, therefore, relies on racial remedies that involve rooting out those bad actors, changing individual behaviors, or intervening in the practices of the victims of racism. CRT on the other hand critiques these dominant narratives (Solórzano & Yosso, 2002) and instead sheds its light on the unintentional, ingrained, and even mundane ways that racism is maintained systematically via the normal operations of social institutions (e.g., law, health care, transportation, and education).

A fourth tenet is the unique perspective of people of color (Delgado & Stefancic, 2017), which

posits that people of color-because of their experiences of living with the daily manifestations of racism—have a better vantage point with which to examine and explain it. The unique perspective of people of color also relates to CRT's valuing of experiential knowledge. Because people of color have developed specific insights into racism, and since their epistemological standpoints are often excluded from and/or silenced within dominant theories and explanations of racial disparity, their experiential knowledge is a rich source with which to more fully and accurately understand the systemic nature of racism. The unique perspective of people of color and the valuing of experiential knowledge are often seen in CRT's use of counternarrative, which is a practice of centering the voices of people of color in order to speak back to dominant narratives on race, expose white supremacy, and offer new knowledge with which to understand race and racism (Berry & Stovall, 2013; Cook & Dixson; 2013).

Fifth, the CRT tenet of intersectionality explains how people of color do not merely live as members of their race but can also face a matrix of oppressions due to other aspects of their identity (Crenshaw, 1991), such as those related to their gender, sexual orientation, class, etc. Because oppression is intersectional, CRT uses a race-focused framework as a way to dismantle not only racism but also sexism, heterosexism, classism, nativism, etc. and it draws on interdisciplinary forms of knowledge to do so (Solórzano & Yosso, 2002).

These tenets help CRT scholars examine how race is a social construction, that despite it having no basis in biology or genetics, race is a category constructed "as a mechanism for creating hierarchy and an ideology of white supremacy" (Ladson-Billing 2013, p. 39). CRT has traditionally looked at the law's role in that construction (Bridges, 2018). As it has extended to the field of education, it looks at how race as a socially constructed system of categorization establishes a hierarchy within and between school contexts. It is particularly useful as a framework to examine the recurring and hidden manifestations of white supremacy in educational policy and practice. While it can help to name and respond to overt and blatant acts of racism, the bigger concern of CRT scholars in education is the way policies and practices of curriculum, instruction, and classroom management maintain racial disparity regardless of intent and how those practices are dysconsciously legitimated by dominant ideologies. In fact, while CRT comments extensively on whiteness and pays attention to the actions and ideologies of white school personnel, its primary gaze is not on white people but on how white supremacy is normalized in seemingly raceneutral policies and daily practices, and it acknowledges that anyone, regardless of race, can be complicit in those policies and practices (Bell, 2008; Gallagher, 2020; Leonardo, 2004). Furthermore, even when CRT does pay attention to the individual and interpersonal enactments of racism, it does so for the purposes of racial literacy, which involves examining the interplay between the interpersonal, and structural "psychological, dimensions" of racism (Guinier 2004, p. 115), i.e., how our individual discourses and perceptions of race are connected to broader structural racism.

Current Misunderstandings of CRT

With a more accurate picture of the CRT's key tenets and areas of focus and of its role in educational inquiry, we can see what a poor understanding the attacks on CRT actually exhibit. For example, while NC HB324 does not actually mention CRT, when speaking to the press, NC Senator Phil Berger discussed CRT when arguing about the need for the bill (Granados, 2021), and Senator George Cleveland called Critical Race Theory "garbage" (Harris, 2021). Similarly, NC House Speaker, Tim Moore, argued that the bill would prevent "discriminatory concepts, like Critical Race Theory, from being taught as fact or endorsed" (Friedersdorf, 2021). When we compare what the bill actually says with the concepts from CRT, however, we can see a disconnect. For example, one piece of the bill decrees that schools cannot promote 13 ideas. Just looking at the first seven¹, we can see not only a lack of racial literacy but also that they do not even counter the principles of CRT:

1. One race or sex is inherently superior to another race or sex.

- An individual, solely by virtue of his or her race or sex, is inherently racist, sexist, or oppressive.
- An individual should be discriminated against or receive adverse treatment solely or partly because of his or her race or sex.
- An individual's moral character is necessarily determined by his or her race or sex.
- An individual, solely by virtue of his or her race or sex, bears responsibility for actions committed in the past by other members of the same race or sex.
- Any individual, solely by virtue of his or her race or sex, should feel discomfort, guilt, anguish, or any other form of psychological distress.
- 7. A meritocracy is inherently racist or sexist.

First, with regard to the ideas one and three, CRT specifically seeks to challenge notions of superiority/inferiority and the practice of treating individuals more adversely because of their race. Next, the second and fourth ideas frame racism and sexism as primarily acts perpetrated by individuals and as essential aspects of people's nature. Those framings counter the main focus of CRT, which positions racism in social structure not merely in individual intent or disposition (see Gillborn, 2005). While CRT does examine complicity in racism, it does not assert that such racism is inherent in any individual person. Because race is a socially constructed system of categorization, people are not inherently racist but socialized to uphold a racial hierarchy (which also means they can be socialized to disrupt it). Concept five also uses an individualist framing of race and racism. Again, CRT does examine complicity in racism (by both white people and people of color), but it does that on a systemic level, not individual one, and it does not merely locate racism as historical. So, while some CRT scholars may support policies that address racial history (such as reparations for the descendants of slavery) the argument is that U.S. society as a whole is responsible for its history, not individual

they, at the time of writing, have appeared in both the earlier and most recent editions of the bill.

¹ There have been multiple editions of the legislation. We focus on the first seven concepts as

people. On the issue of concept six and guilt and discomfort, CRT scholars do look at the role of those emotions in learning about racism (e.g., Blaisdell, 2018; Matias, 2016), but the scholarship does not claim that people should feel those emotions. Rather, it examines how those emotions arise in (and can even impede) racial equity efforts and suggests how educators can collectively deal with them to have more productive conversations on race. Finally is number seven. CRT does not define meritocracy as racist. Rather, through its critique of liberalism, CRT challenges dominant narratives that assert the U.S. is actually a meritocracy (Delgado & Stefancic, 2017), and it uses historical and contemporary factual evidence to support that claim. Therefore, narratives that frame the U.S. educational system as meritocratic obscure the institutional and structural racism that actually exists in schools and school districts. Again, in these seven items and throughout the bill, the language is racially illiterate in that it frames racism as individualistic and about intent rather than as a system that maintains a racial hierarchy that itself controls the distribution of power and resources (Guinier, 2004). The inaccurate wording of such bills (whether intentional² or due to ignorance) is evidence how in many of these attacks, CRT serves as a shibboleth for the broader antiracist efforts and/or the mere presence of discussing race more directly (Kearse, 2021; Sheasley, 2021).

The timing of the new attacks on CRT and antiracism training in schools should not be unexpected. After the murder of George Floyd and subsequent visibility of several antiracist protests and movements (such as the Movement for Black Lives [Buchanan et al., 2020]), increased number of symposia and speakers on racism in schools and businesses (Norwood, 2021), and increased verbal and financial pledges to racial equity from corporate America (Jan et al., 2021), it should be expected that the number of people who don't believe in the salience of race, hold majoritarian narratives about people of color, and/or are threatened by open conversations on race would make their voices heard in response. In fact, the increased attacks on

CRT and antiracism more broadly actually highlight CRT's salience. Racial realism tells us that not only is racism an endemic part of U.S. society but that it will always be so, and whiteness as property helps examine how that permanence is maintained, i.e., how white people will respond when the status property of whiteness is threatened.

Ironically, the attacks on CRT also prove how much it is still needed in work with and in schools. While some CRT scholars have defended CRT by saying that it is not taught in public schools (Cornish, 2021), we agree more with arguments that say it does have a place there (e.g., Stovall & Annamma, 2021). Kendall Thomas, a law professor at Columbia University, explains, "Critical race theory is concerned, above all, with addressing the literacy deficit in this country around race" and that it "starts from the idea that you cannot educate young people to take up their responsibilities as citizens unless you also give them a critical racial literacy" (Wall, 2021). CRT provides comprehensive understanding of structural racism that is needed to develop racial literacy. With it, people can identify and intervene in their own complicity in that system of racism and better live up to the democratic ideals of the country. Why would we not want that taught in schools? CRT is already being directly used to affect specific school practice in a variety of ways, e.g., helping teachers to improve their literacy instruction (Mosley, 2010; Rogers & Mosley, 2006), school leaders to dismantle barriers to equity and increase student achievement (Amiot et al., 2019), and schools to develop school-wide racial literacy and antiracist school identities (Blaisdell, 2016, 2021). Increasing CRT's presence in schools and sharing that knowledge with students, families, communities can similarly help them to increase their own racial literacy and to better live up to their own democratic ideals.

History of Backlash to Racial Justice in Education

Because CRT and related efforts toward social justice question or disrupt the power structures of racism and intersecting forms of oppression, their application in education has faced tremendous

² See Shephard (2021) and Wallace-Wells (2021).

backlash throughout history and has often been met with white resistance or outright white vigilantism. Some scholars argue that these attacks have been most impassioned when real progress towards equity and social justice is being made (Blaisdell, 2020). In "Mothers of Massive Resistance," Elizabeth Gillespie McRae (2018) recounts a history of how white women in particular have utilized tools of white supremacy including social, political, and economic capital to influence education reform. In the interwar years, this included lobbying against textbooks that portrayed an objectionable view of the segregated South or ones that cast question upon the South's cause for secession. Other texts that confronted social issues during the same time also became "increasingly under attack 'in small town American Legion belt" and book burnings were reported in multiple small towns (Evans, 2004, p. 77). In the 1950's and 1960's, when steps toward school integration were beginning to materialize throughout the nation, criticism and backlash ranged from verbal and physical assaults on young Black students entering public schools to the closing of all public schools in entire districts in efforts to evade integration (Library of Congress, 2004). Prince Edward County, Virginia kept their public schools closed for five years to avoid integration (June-Friesen, 2013). Often, when schools finally integrated (both in the North and the South) white parent pressure forced many Black educators out of their jobs (e.g., Dougherty, 2004). In the 1980's, 1990's, and early 2000's, efforts to move beyond merely integrating bodies in schools to the integration of multicultural content and perspectives in curriculum found its way into mainstream curriculum, coursework, and teacher education (see multicultural education and ethnic studies) but again found conservative backlash. In Arizona, this resulted in a legislative ban of any class that advocated "ethnic solidarity" (see Palos & McGinnis, 2012).

As many scholars and educators have found that the mere inclusion of diverse content has not been effective enough to dismantle structural inequities in classrooms and schools (Nieto & Bode, 2018), critical pedagogy and critical theories to dismantle root causes of inequity have found a noted presence in education. Now, these efforts

toward racial justice are today, as they have been in the past, facing opposition and censorship. It is important to note that in many of these historical cases of white backlash to racial justice reform in education, white resistance has often relied on appeals to fairness, neutrality, patriotism, and democracy even though the traditional curriculum or status quo they preferred was far from neutral (or fair or democratic). Today, again, attackers of CRT critique its presence in education as interjecting bias into the curriculum. However, it is important to note that all curriculum and instruction is powerladen (Apple, 2004) and there is still a deep literature base documenting the whitewashing of traditional curriculum and standards (e.g., Leahey, 2010; Loewen, 2008; Sabzalain et al., 2021; Shear et al., 2015). As much as historians despise the maxim of "history repeats itself," this seems to be the case as today's educators who seek transformative means toward racial justice have found ourselves once again facing a tsunami of backlash for our most recent efforts. At the very least, we are embroiled in what could be called an open and bitterly hostile public controversy.

Taking a Stance within Public Debate

Public scholars of education and educators like ourselves must make choices about how to frame controversies for our students and, in this case, our readers. This decision is especially difficult as educators across the country have had to navigate how their job security and well-being is affected by how they engage in discourse about race (Chapman, 2013; Villareal, 2021; Walker, 2021). Even though we have expert opinions on the topic, some might argue that we have an ethical obligation to present this controversy neutrally or without preference or bias. Much of the scholarship on democratic education identifies an open controversy based on if a question has multiple competing viewpoints in the public sphere. The following instructions are often given to educators when engaging in those conversations within their classroom role,

Open questions are those for which we believe different answers could be legitimate. Though we may have personal opinions about the best answer to these questions, it is not appropriate to teach our students that a particular answer to an open problem is correct. Closed questions are those for which we believe there is a correct answer that we should teach students to build and believe, even though it may have been open in the past, or may even open in the future. What is considered open (and therefore, "legitimately" controversial in the classroom) and what is considered closed is a matter of social construction (Hess & Gotti, 2010, p. 21).

While this seems like fair guidelines for democratic education, it becomes more complex when mapped on to issues of justice. Should educators in the 1950's and 1960's have considered the dismantling of Jim segregation an open controversial issue for their students to debate because it was considered open by white segregationists? Or would justice demand that they take a stance to close that question and ensure all students' inclusion and safety? Hess & Gotti's advice is also problematic when considering issues of expertise. Should teachers be neutral on the question of human-caused climate change because it's debated in the public sphere even though 97% of scientific experts agree on its cause and existence ("Do Scientists Agree on Climate Change?" 2021)? We agree with Journell (2017; 2018: 2021) that some controversies should not be considered open based solely on a "politically authentic" criterion. In other words, teachers need not leave a question up for debate just because there is disagreement within the public sphere. In fact, we posit that educators have a role in closing some controversies for the sake of justice. Therefore, while there may be debates about the importance and legitimacy of CRT in schools, we consider the issue closed on the grounds of both justice and expertise. We encourage teachers and scholars in the field to use their agency to close this question as well. We offer this special issue of TPRE to substantiate our stance that CRT is an applicable and valuable theory in rural education.

This Special Issue as Critical Praxis

Often, scholars in higher education are criticized for their focus on the theoretical and lack of real world engagement. Instead, critical scholarship should prioritize and value praxis (Yamamoto, 1997). Praxis can be defined as action or engagement on the world that creates change.

According to Stovall (2004), critical race praxis "bridges theoretical concepts to everyday practice" (p. 10). Critical race praxis in particular involves educators using key theoretical understandings from CRT in order to collectively organize against and intervene in the way oppression is normalized in educational settings (Blaisdell, 2021; Yamamoto, 1997). Therefore, together, we offer this special issue as praxis. We intend the issue to highlight the work of scholars who are committed to imagining and provoking schools to be sites of resistance in rural areas— as we wrote about in our call for submissions (Gallagher et al., 2020). We also intend this special issue to speak back to the current public discourse demonizing critical theories in education by offering examples of how such scholarship is both applicable and valuable to the same rural spaces where it is most under attack. The articles in this issue apply critical theories to diverse fields and contexts. They include a media review, a theoretical piece, and empirical work. Together they inform the fields of social studies education, bilingual education, STEM education, and more. The locations within which their work is generated range from Appalachia, the Black Belt (as identified by Swain and Baker [2021]), South Florida, Utah, and elsewhere. While the authors of the special issue use critical theories to varying degrees in their articles, below we make connections between their projects/findings and critical analyses of oppression in education.

In "Whiteness Owns It, Blackness Defines It: Rural Reality in the Black Belt," Swain and Baker delve into the "centrality and spatiality of Black life" in rural space. Too commonly, the U.S. discourse on rurality imagines a white populace. The authors connect the persistence of this imagination to the enduring legacy of slavery and of plantation logic. In terms of space, plantation logic continues to position Black people not as people or inhabitants but rather as property and white people as owners. Swain and Baker contend that by better understanding plantation logic, educational researchers can more effectively examine how our conceptualizations of rural space are intertwined with our ideas about race and, subsequently, more effectively intervene in the way Black people continue to be marginalized and displaced in rural educational discourse and practice. Toward those ends, they offer CRT as an analytic framework and walk the reader through the analytical potential of three prominent CRT concepts: racial realism, whiteness as property, and interest convergence. This analysis helps to uncover how rural spaces have always been racially contested spaces, how communities maintain more white valued educational property, and how reforms purportedly enacted to help Black students actually serve to maintain material interests for white people. In the end, Swain and Baker argue that a CRT lens is a useful way to develop a race-conscious approach to equity work in rural schools because it not only exposes the specific ways racism operates but also sheds light on the role Black people have had in shaping rural space. Therefore, by using CRT and similar frameworks to examine both the persistence of plantation logic and the labor and creativity of Black people within rural spaces, educational scholars and practitioners can more effectively understand and intervene in racial disparity within rural contexts.

In "Why Hillbillies Matter in Social Studies: Hillbilly Elegy and Why WE Must Respond," Colley offers an empirical analysis of K-12 social studies standards focused on the presence and context of Appalachia and Appalachia-related terms. Findings show that Appalachia is barely present or largely ignored, even within the state standards of the Appalachian region, and its minimal inclusion lacks authentic representation of the history and diversity in the region. Colley's analysis is important because it provides additional evidence of the role of school curriculum in othering. It also further provokes a necessity for a "full examination of the ways in which class, and in particular the intersections of whiteness and poverty, contribute to an ever polarizing America" both in the field of social studies and the social world beyond (p. 30). Colley emphasizes that the othering and lack of authentic representation of Appalachia in the standards is a result of leaving out authentic Hillbilly³ stories and voices. As is often a problem within the field of social studies education, lack of robust standards

may prevent teachers and students from engaging in authentic multiple perspectives or critical examinations of power structures (e.g., Sabzalian et al., 2021; Shear et al., 2015). In this work, Colley utilizes the conceptual framework of whiteness and boundary theory together (see Wray, 2006), which provides a lens to understand the ways in which socially constructed boundary lines of race and class are a form of othering that obscures the fuller history and social and cultural capital of the people of Appalachia. It also allows the region to be used as a scapegoat for the country's social ills. Colley's work highlights how the construction of such boundaries are present in the social studies standards she examined and provides a call to action for social studies educators and teachers educators to work toward a more diverse representation and robust understanding of Appalachia. Similar to Swain and Baker, this work may also provoke readers to think through the necessity of conceptualizing broader understandings of rurality within the complexity of racial power structures.

In "Rural Teachers' Cultural and Epistemic Shifts in STEM Teaching and Learning," Tofel-Grehl and colleagues locate their work within the impacts of economic globalization felt in rural communities. As information technology and global capitalism have provoked a shift toward STEM educational goals, the authors completed a designbased research project that created integrated STEM and social studies curriculum along with accompanying professional development for elementary teachers who largely taught in rural settings. Their work focused on stories of immigration, migration, and forced relocation and utilized science and computing knowledge for engagement in complex stories that were not typically found in Utah social studies education. Through analyzing teacher reflections, they found that the teachers' curriculum enactments and experiences were impacted by their racial and cultural identities. While all teachers were nervous conversing with students about difficult history, the white teachers in their study had more concerns

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³ Colley reappropriates this historically stigmatizing moniker.

and more often desired to avoid difficult conversations. Whiteness was also constructed through their overprotection of white emotions and uncritical examination of how their own and their students' identities related to the content. Tofel-Grehl and colleagues remind us that STEM education is not devoid of race or culture, and even within the enactment of intentionally designed curriculum that engages counter narratives, critical examination of the pervasiveness of whiteness is necessary.

In "I Feel the Responsibility': The Nexus of Secondary Teacher Knowledge, Rural Education, and Emergent Bilinguals," Marichal (2021) addresses the needs of emergent bilinguals (EBs) in rural schools and the lack of cultural understanding many teachers in rural schools have of EB students. She attempts to fill the gap in knowledge about EB student experiences within rural contexts. To do so, she offers a model of teacher knowledge in which teachers support and supplement their professional knowledge with personal and place-based knowledge. Based on a qualitative study of four secondary teachers of EB students in rural Florida, she argues that, collectively, these forms of teacher knowledge can positively affect practice, making teachers more successful in meeting these students' educational needs. As for personal knowledge, Marichal found that teachers' reflection on how their own communities affected their identities helped them to similarly understand the role of community in their students' identities. In turn, that knowledge helped them develop authentic relationships with their students. With place-based knowledge, a more complex understanding of place was helpful for teachers in understanding students' experiences specifically in rural contexts. Combined, these types of teacher knowledge helped the teachers in her study frame their students' bilingualism, Hispanic ethnicity, and faith as resources for teaching. Marichal's article helps fill the gap in research in rural education as it relates to the need for more specific studies in which place and rurality are not seen as a backdrop in which the education of EBs happens but rather as major contributing factors to both who those students are and how

teachers develop meaningful personal and professional relationships with them.

In "Positioning Ourselves toward Culturally Sustaining Pedagogy," DiCerbo and Baker posit that asking teachers to consider their own cultural identities can be an important step in the process of culturally sustaining creating pedagogy. Participants in this study were teachers of English Learners (ELs) and through this research process, they created written narratives in the form of autobiographies. Via these narratives, participants were able to explore how their culture and experiences shaped their identities and influenced their connections to their students within rural communities. Through this deep reflection process, participants considered how their families, religious practices, finances, etc. may have positioned them with privilege. Even though their experiences were often different from their students, they focused on how their histories connected them across differences and provided space for effective classroom communities that provided culturally responsive teaching to ELs in rural spaces. From this reflection, participants chose to "take up roles that empowered them to approach teaching from culturally based perspectives" (p. 106) and they were "able to construct a teacher identity positioned on the side of educational justice and possibility" (p. 106). DiCerbo and Baker explain how writing an autobiography is a way to pay attention to our lives and the role of race, culture, and otherness. This can provide an opportunity for connections to English Learners or new populations of students whom educators may not have experience teaching. Findings reveal that while participants were able to reflect on their identities and how they positioned themselves toward their students, more research is needed on the extent to which these reflections impacted their beliefs, dispositions, and instructional practices.

In "Everybody Lives Near Appalachia: Examining Hillbilly Elegy's Impact on American Society?" Mullins and Mullins offer an analysis of Vance's popular novel. In the elegy, Vance uses his experience growing up in rural Appalachia to highlight the cultural nuances of this population, often characterized by the tension between their experiences of poverty and the desire for an

ascension into the upper and middle class. Mullins and Mullins clarify that their critique is not centered around the syntax of the writing or Vance's own story. Instead, they ask critical questions related to the presentation of the Appalachian culture in broad generalizations. Mullins and Mullins offer the reader the opportunity to consider both between and within group differences among Appalachians. The review also grapples with the popularity of Vance's elegy and provides a critical analysis of why various population sects may be attracted to the narrative as presented.

Conclusion

Together, the work included in this special issue showcases the diverse perspectives in education through multiple approaches examining the role of critical theories and racebased methodologies in rural spaces. Without being attentive to the characteristics of rural spaces, attempts to further diversity, inclusion, and equity efforts will not be effective. Rural spaces are unique contexts that are more geographically isolated than urban and suburban areas. This often means that people living in rural areas have less access to resources and people from outside of their community. In education this can mean limited resources such as classroom materials and school personnel. What this does not mean is a lack of diversity. A clear thread throughout each piece in this issue is that rurality is not a race or culturally neutral concept. As Swain and Baker posit in "Whiteness Owns It, Blackness Defines It," the discourse around rurality in this country has focused on whiteness. The danger of this mindset is that it maintains racial disparity and continues to center whiteness. Each contribution to this issue showcases the importance of acknowledging race and culture in these spaces in order to disrupt the power dynamics that have been abused for centuries. Through this collection, readers are forced to contend with questions of power in rural spaces. Who has it? Who doesn't? Who benefits from these dynamics? The responses to these questions are daunting as we consider what this means for racial equity, curriculum standards, and authentic representation of diverse identities within rural spaces. In order to consider these questions, we have to recognize that rurality is not

synonymous with white. Instead, the identities of people in rural spaces are diverse and should be validated and affirmed even when state and local laws push against these truths. The tenets of CRT allow us to resist these narratives and consider rurality through a race-conscious approach that forces us to ask, whose identity matters?

The contributions in this issue explore identity across different contexts, for example, Tofel-Grehl's study with STEM teachers delves into the reflections of teachers as they discuss how their curriculum experiences were impacted by their racial identities. Similarly, EL teachers in DiCerbo and Baker's study reflect on how their identities shape their teaching and how their identities connect them to their students. Marichal's work with emergent bilinguals reveals that as teachers reflect on how their identities are shaped by their communities, they are also able to consider how their students' identities are shaped by their communities, showing that rurality is not a monolith; instead, there is a richness of culture and experiences that come together to shape these rural spaces. It is important to validate and affirm these diverse perspectives as we consider how to engage in equity, inclusion, and diversity within the current political context.

This issue addresses rurality as it relates to equity, inclusion, and diversity in educational spaces and provides implications for this work, leaving little room to interpret rurality as a monolith. In addition, through the contributions to this issue, we are asked to consider the many possibilities for CRT in rural education. The authors ask us to consider the role of race and power in rurality. They ask us to consider the role of curriculum standards, identity, STEM education, English learners, and teacher knowledge. In the end, they all provide us with ideas for further research, but we would be remiss to pretend the constraints of this political climate will not still be at the forefront of educators' minds even after reading the contributions to this issue. So, when we consider the road ahead—and we consider how to effectively meet the needs of students in our education systems (particularly in rural communities) while focusing on creating a more fair and just society—we have to first remind ourselves that this work is far from complete. Then we have to ask ourselves how to build support systems that allow us to stand up against legislation that continues to distract from the truths and realities of our communities and identities. We have to ask ourselves how we can advocate for others who may be silenced in their schools. DiCerbo and Baker suggest this is just one step in the direction of creating culturally responsive spaces for students, so then we have to ask ourselves, what is the next step? What is my next step? These questions are important because action is important. It is not enough to read this issue and obtain the knowledge shared. We must take the knowledge, the experiences, the realities, and consider how to enact change.

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Whiteness Owns it, Blackness Defines it: Rural Reality in the Black Belt

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Any examination of schools and schooling in the rural Southern Black Belt must interrogate the enduring logic of plantation politics and examine rural equity work through a racialized lens. We defined rural and identify a rural reality for life in the Black Belt South. Critical Race Theory (CRT) and antiblackness are offered as potential race-conscious theoretical frameworks to a plantation rurality, and we propose an alternative vision of rural education scholarship in the Southern Black Belt that invites space for anticolonial liberation.

Keywords: rurality, rural education, Black Belt, plantation logic, critical race theory

Introduction to the Southern Black Belt

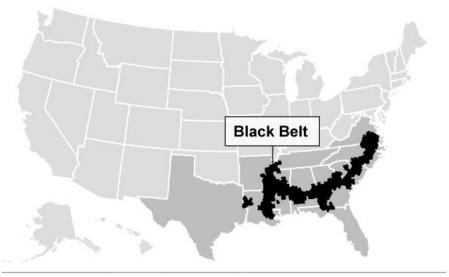
Plantations never left the South. Country highways are populated with historical attraction tourist signs directing interested visitors to these monuments of settler colonialism and antiblack commitments of our society. Historical societies and state governments maintain the buildings and grounds, planting bright new flowers every spring and working to preserve the clapboard siding of aging structures with fresh coats of paint. Schoolkids in the rural South take field trips to these plantations and are invited to enter the fields to pick cotton or paraded through cramped, sparse slave cabins to "imagine what it was like" to live without freedom. While the stolen production and industry of these fields died following the abolition of slavery, the politics and permanence of plantations remain an indelible presence in rural communities of the southern Black Belt. The Black Belt of the American South is both an agricultural region, signified by the lush fertility of Black soil and a term used to describe the 600-odd plantation counties stretching from Virginia to Texas that are populated predominantly by Black Americans (Raper, 1936). The vestiges of slavery have an enduring legacy on the education of children who inhabit these spaces.

The centrality and spatiality of Black life, defined as "the spatial imaginaries, space-making practices, and senses of place rooted in Black communities" (Hawthorne, 2019, p. 5) has been ignored and displaced in educational rural research. Within critical rural conversations, like the work of Green and Letts (2007) who state, "educational space is typically seen therefore as a 'container' within which education simply 'takes [its] place" Educational space without racial context ignores race as a significant factor in rural education. Black inhabitants and their racialized experiences in rural schools are thus also ignored. This may be due to the perception that in the general American imagination "rural" equals "racialized white" or "white and low income." Popular stereotypes of Southerners as white ignorant hillbillies are perpetuated by sitcoms and reality television shows

Figure 1 Map of the region that Makes up the Black Belt

America's Black Belt

Once named for the color of its fertile soil and later for the high percentage of African-American residents, more than 600 counties in 11 states make up the Black Belt region.



SOURCE: U.S. Department of Agriculture

AP

(e.g., Dukes of Hazard [1979-1985], Andy Griffith Show [1960-1968], Duck Dynasty [2012], Lizard Lick Towing and Recovery [2011–2014]) and not by accurate portrayals of southern rural life. There are very few media representations of people of color in the rural southern United States, and those that exist are positioned as exceptions. We speculate this may in part be due to the historical construction of white land ownership of First Nation lands, settler colonialism, and the enslavement of Black bodies. Despite the historical fact that many white landowners were outnumbered by the number of slaves present, the economic and political power attributed to land ownership rendered the Black inhabitant as a non-entity. Yet schooling structures, economic structures, and political power have often been predicated on the ability to use, abuse, and distance whiteness from Black bodies, and the plantation is where this structure was practiced most, where whiteness owned the land and

defined Blackness and operationalized its importance.

Plantation logic has been theorized across a variety of disciplines, including education (Bristol, 2012), higher education (Dancy et al., 2018; Matias, 2015; Squire et al., 2018; Williams et al., 2021), religion (e.g., Erskine, 2014; Welch & Wilson, 2018), geography (e.g., Hawthorne, 2019; McKittrick, 2013), sports and athletics (e.g., Donnor, 2021; Hawkins, 2010; Rhoden, 2007), but there is a discernible lack of scholarship and attention to the relevance and presence of slave plantations in and to rural education. Plantation logic is the enduring racist structure that positions Black people as inhuman and inherently less valuable than white property. Plantation logic is operationalized whenever Whiteness owns a space but Blackness defines it. We connect the frames of plantation logic to rurality as a theoretical lens through which we are able to identify the afterlife of slavery in the

American South, where space, place, and power collide with the historical antecedents of settler colonialism and white supremacy. Rural educational scholars often highlight the ways that rural communities shape and impact rural schools and schooling (Bauch, 2001; Schaftt, 2016; Theobald & Nachtigal, 1995), but the racial historical context and proximity of plantations to these communities in the Black Belt is not interrogated. If schools are understood as racial spaces (Blaisdell, 2016), so too are the contexts where these schools reside.

This lack of interrogation may also be rooted in the ways educational scholars understand and define a rural space. Defining rural, as we wrestle with later in this paper, is an ongoing challenge for scholars addressing rural education (Bryant, 2010: Tieken, 2014; Webster & Bowman, 2008). This is even more difficult for those scholars who are specifically focusing on racial equity work in rural education as our collective definitions and application of racial equity is often theorized and contextualized within and in relation to urban educational spaces. Understandings of rural are often predicated on perception and the presence of Black bodies is frequently coded as urban, which in and of itself distorts an already complex sociohistorical landscape of rural education. Moreover, formal definitions of rural vary by federal or state agency and by populations that inhabit rural space and place. All these factors challenge the ways rural educational scholars articulate, ignore, or address race in rural education.

We argue that any examination of schools and schooling in the rural Southern Black Belt must pick up and engage the persistent enduring logic of plantation politics, and/or examine rural equity work through a racialized lens. In what follows, we share our entry into this conversation by recounting a recent event that we believe exemplifies a challenge we call upon all of us to undertake. We then wrestle with defining rural and identifying a rural reality for life in the Black Belt South. Critical race theory and antiblackness are offered as potential raceconscious theoretical frameworks to a plantation rurality, and we end by proposing an alternative vision of rural education scholarship in the Southern Black Belt that invites space for anticolonial liberation.

Reframing the Question: Centering Plantation Logic

Two contextually significant questions were posed at a historical event in eastern North Carolina: "How has North Carolina been shaped by the experience of enslaved people from or around Somerset Place and Plymouth?" and, relatedly, "What impact does the legacy of slavery continue to have in North Carolina?" We use these two questions to articulate how plantation logic operates in the everyday space of the South. Reframing these two questions allows us to be intentional about decentering whiteness in rural education research within the Southern Black Belt.

In March of 2019, personnel from the North Carolina African American Heritage Commission (NCAAHC) met with community members in rural Plymouth, North Carolina at the Vernon G. James Center to discuss the development and placement of a historic monument acknowledging the direct connection of Somerset Place Plantation to the Middle Passage. The NCAAHC was interested in building community support and involvement around the historical marker.

Somerset Plantation was built in 1785 in the swamps of Creswell, North Carolina, when the plantation's white owner, Josiah Collins, forced 80 enslaved Black people to his plantation to clear the land. From those initial 80 people, 21 families were created, and historical records indicate that over 860 enslaved people lived and worked on Somerset land, marking it as "one of the upper South's largest plantations" (North Carolina Historic Sites, n.d.). Once these Black families were emancipated and freed from forced labor, many moved into the neighboring land and developed homesteads (Crow et al., 2019). The nearby townships of Creswell, Roper, and Plymouth all remain predominantly (approximately 75%) Black spaces today.

The crowd gathered that spring evening at the Vernon G. James Center numbered about 70 persons. Many of the participants were elders, Black and white, from surrounding counties. Also present were a number of direct descendants of enslaved people on Somerset Plantation, including the only Black man serving as a director in the white governor of North Carolina's office. For so many of

those present, the legacies of identity and connection to slavery are inescapable (DeGruy, 2017). To highlight the significance of the enslaved Black people living on Somerset Plantation, the NCAAHC spokesperson, a young Black woman, asked the audience, "How has North Carolina been shaped by the experience of enslaved people from or around Somerset Place and Plymouth?" and, relatedly, "What impact does the legacy of slavery continue to have in North Carolina?"

In response, community members called out some of the more obvious contributions of Black folks to the South, such as music and food. Eager to participate, others pointed to the trades and skills that many of the Black enslaved individuals possessed and passed along. The origin of the architectural design of southern porches, for instance, is attributed to the brilliance of Black enslaved tradespeople. As members from the community named the gifts of Black folks to the area, the woman from the NCAAHC hastily scribbled responses on chart paper tacked to the walls of the community center.

The questions posed that evening sought to underscore, highlight, and quantify the worth and the contributions of Black people to this region. The questions posed that evening were designed to get the community members to recognize the value of Black people to this region. However, the framing that evening asked community members, "what did Black folks bring to the area?" tacitly implied that this northeastern region of North Carolina is owned and dominated by white people while Black people have merely contributed to the greater (white) community. Thus, from such a perspective, this region of North Carolina is racialized as white. Mills (1997) explains the process by which space and place are racialized: "the norming of space is partially done in terms of the racing of space, the depiction of space as dominated by individuals (whether persons or subpersons) of a certain race" (p. 42, emphasis in original). Blaisdell (2017) extends this racial space analysis to include the impact of white supremacy on racialized spaces whereby spaces signified as white are "superior" and non-white spaces subordinate and inferior. Because white supremacy is a "political, economic and cultural system in which whites overwhelmingly control power and material resources" (Ansley, 1997, p. 592) and because these practices are enacted daily, we argue that plantation logic is required to fully interrupt and decenter whiteness.

The racial demographics of Washington County, where Somerset Plantation is located, is predominantly Black and has been ever since the origins of Somerset Place Plantation. Prior to Emancipation, once the enslaved people of Somerset learned of the inevitable Union victory and the promise of freedom, they took over complete control of the property and surrounding land in Washington County, taking with them livestock and other means of establishing life (Crow et al., 2019). The racial reality of life in the Black Belt means that for every victory of Black people, white supremacy always moves to reassert itself.

So perhaps the question, "What impact does the legacy of slavery continue to have in North Carolina?" is best reframed as "What impact does the legacy of slavery not continue to have in North Carolina?" The prevailing presumption and perceived rural reality of Washington County is racialized as white because White people own the majority of land and businesses-but not because white people are the majority numerically. Black people hold only a fraction of the wealth of white people in this area. From this locus of economic and political control over space and place, white people have governed the land and local institutions, such as rural schools, since the fall of the plantation through continual demonstrations of repression, resistance, and domination. Power remains hierarchically distributed as a continuum from white to Black that upholds status and rank from the afterlife of slavery. Land and space remain overregulated through processes such as redlining despite the perception of equal opportunity and access. Suppression and control of Black life and Black mobility is relegated through the perpetuation of a carceral police state. Overt displays of visual terrorism (Holyfield et al., 2009), like Trump flags and flags of the failed Confederacy, serve as perpetual reminders of the myriad acts of lynching throughout generations. Even the physical presence of slave plantations remains monuments of terrorism and white supremacy. Through the social construction of not seeing (Soo

Hoo, 2004) and the politics of forgetting (Fernandes, 2004), plantations are sanitized and stripped of the inherent brutality of human subjugation. The violence of white supremacy diverts attention away from its historical injustice and abuse. Instead, tender flowers are planted and sweeping lawns mown and maintained and children from local schools are invited on educational field trips. Plantations are perceived as an inescapable facet of rural life in the Black Belt, as necessary to life in the south as white supremacy. This is the rural reality that Black people live and work and go to school in.

Yet while whiteness owns the space of this region, it is the presence of Black people who have defined North Carolina. The NCAAHC asked. "How has North Carolina been shaped by Black people?" when the question should be, "How has North Carolina not been shaped by Black people?" The labor, presence, and resilience of Black people created and defined this and every other state across the southern Black Belt. The centrality and spatiality of Black life exists not in relation to white people but in spite of white people. Antiblackness continually functions by "positioning Blackness as perpetually 'out of place' or as placeless" (Domish, 2017, as cited in Hawthorne, 2019). In the plantation South, Black people are positioned "elsewhere (on the margin, the underside, outside the normal)" (McKittrick & Woods, 2007, p. 4). This antiblack spatial practice of dispossession elides and obscures the creative and poetic Black life and belonging in rural spaces.

Wrestling with Rurality: Toward a Definition

We understand the term rurality to signify and describe rural reality. This distinction, at least for us, centers how life, work, and play in rural spaces is situated through a sociohistorical context and creates space for us to understand the racial reality of these complex spaces. In this section, we offer the rural definitions from the federal government and discuss the urban/rural dyad that perpetually defines, right or wrong, the way rural is discussed in literature. Contextualizing rurality gives us an opportunity to move away from articulating an overly simplistic singular definition of rural reality.

An ongoing challenge to rural education research is defining rural. There are several ways that rural is defined depending on what index or which federal agency's definition is used to understand and name the space classified as rural. The U.S. Government employs 15 different official definitions for the term rural. The majority of these federal definitions employed by the Department of Agriculture define rural in relation to population or proximity to city center, i.e., "any place with fewer than 50,000 inhabitants, and not adjacent to an urban area" or "any place with 20,000 or fewer inhabitants." The Department of Education employs the autological and circular definition: "any place defined by a state government to be rural." Two federal definitions are offered below, one in relationship to the Census Bureau, which many rural researchers also cite (Smith & Parvin, 1973; Tieken, 2014):

Whereas researchers often use the term rural when referring to non-metro areas, and Congressional legislation uses the term when describing different targeting definitions, the Census Bureau provides the official, statistical definition of rural, based strictly on measures of population size and density. According to the current delineation, released in 2012 and based on the 2010 decennial census, rural areas comprise open country and settlements with fewer than 2,500 residents (United States Department of Agriculture [USDA], 2019, para. 6).

Definitions based on municipal boundaries may classify as rural much of what would typically be considered suburban. Definitions that delineate the urban periphery based on counties may include extensive segments of a county that many would consider rural (USDA, Economic Research Service, *Rural definitions*, 2019).

While the federal language provides a nod to the complexity of these spaces, this language is also overly simplified. For example, "all other areas not classified as urban are considered to be rural" is offered by the United States Department of Agriculture (USDA, 2021, para. 4). Federal definitions define rural through a negation of what rural is not – *urban* – rather than a positive

descriptor of the characteristics and components of rural life. Because rural is so often the absence of urban or the absence of population the nuances of the space of rural reality are not addressed. More problematic than the vague and antonymic federal definitions of rural is the glaring omission of race. Rural is positioned as colorblind. Each federal definition serves a varied purpose, and none of them are predicated specifically on the race of the individuals who inhabit the space, yet the outcomes and implications of the indexes, expressly the economic indexes, describe a racialized impact. The number of individuals in rural areas is quantified, but the realities of people within rural spaces are ignored. Milner (2020) reminds us it is imperative that we move away from colorblindness and toward race-consciousness. As much as this is true in urban education, it is significantly true in rural spaces, especially across the Black Belt, where historically Black bodies have been counted, but Black people were never invited to be "welcome, safe, and treated equally" (Williams & Tuitt, 2021, p. 2).

In response to these definitions and the subtle or glaring distinctions of a locale, we offer Milner's (2012) assertion about urban areas that can be applied to rural areas wherein urban is more nuanced, the specifics of a city, its his/herstories, community members, and past and present are all unique characteristics of the urban space that are lost in translation when context of the place is not also included in our defining of a space. These same assertions are true for rural, as rural is more than the indexing definitions that dilute rural down to the absence of urban or metro areas. Context is necessary when attempting to understand the characteristics of a place and space.

The rural/urban dyad or binary is an ongoing formulation of how rural is defined. In 1973, Smith and Parvin defined rural as "the most commonly used definition of rural is that of the Bureau of the Census wherein every place that is not defined to be urban is considered rural" (p. 110). Defining rural only relative to urban is what also supports more contemporary definitions of rural. This ongoing debate is also inclusive of work that articulates a definition of rural that exemplifies the character of the space. Waldorf (2007) posits, "rurality is a vague

concept. Being rural as opposed to urban is an attribute that people easily attach to a place based on their own perceptions, which may include low population density, abundance of farmland or remoteness from urban areas" (para.1). Furthermore, the federal definitions do "a poor job in capturing a county's rural character" (Waldorf, 2007, para. 2). The character of a place may be one articulation of rurality, yet we offer that descriptions of character must include race consciousness to any analysis of the space.

A more nuanced definition of rural is by Tieken (2014). Tieken's work also wrestles with defining rural and comes with definitions that are aligned with what we offer and wrestle with here. Ultimately, she defines rural as a matter of the commonplace interactions and events that constitute the rural "lifeworld," a value mostly overlooked by the media and academia and a significance impossible to quantify. This understanding, shared by many of the residents of rural communities, is tied to place; it a geography-dependent sense belonging. Rural, in this conception, is not simply a matter of boundaries. It constitutes one's identity, it shapes one's perspectives and understandings, and it gives meaning to one's daily experiences. This identity, this shared and place-dependent sense of rural belonging, gives rural its significance (p. 5).

Tieken's (2014) definition is where we pick up, and we name rurality as rural reality. Ultimately, we treat the term rurality as describing, understanding, explaining, living, and experiencing the space of rural reality. Situating rurality within a discrete context, an actual setting such as the Southern Black Belt, allows us as rural scholars to interrogate the extra-local relations of power relative to race, class, and gender dynamics (Nespor, 2008). The place-dependent identity of Tieken's (2014) definition invites a disruption to superficial, generalized depictions of rural reality that elide the way racial politics is experienced in southern rural contexts. Racism cannot be ignored. Within conversations of rurality, there must be a raceconscious approach to research specifically research on, with and about schooling in rural spaces. With this interpretation and distinction in mind, we go forward to examine theoretical

frameworks that could be used to approach equity work through a race-conscious lens and analyze racial equity in rural spaces, with the intention of contributing to understanding rurality.

Researching a Racialized Rural Reality of Education

We specifically locate ourselves as educational scholars within the context of southern rurality and plantation legacies of the Southern Black Belt. The foundations of chattel slavery narrate educational landscape of the rural South, and this rurality ignores the preponderance of Black bodies. The enduring logic of plantations celebrates neoliberal individualism and obscures community and family function across these. Black spaces in the rural South are and have been present since chattel slavery, the rural South is beholden to Black bodies for what it is and has become, yet educational systems continue to work toward the promotion of a white landscape and moving away from Blackness. Despite Black bodies inhabiting the very halls of the school, policies and practices continue to distance themselves from Blackness while simultaneously vaunting the Black athlete, the Black teacher, the Black administrator as exceptional models of Black excellence (Bell, 2000). Underneath Black excellence is the underlying notion that the sheer presence of Black bodies in a school is unattractive to white students or families. Through this complex lens of rural reality and race consciousness, we offer frames to apply to racial equity work in the rural south.

Understanding Plantation Logic in Partnership with Critical Race Theory

As we move through articulating our understanding of rurality, specifically in the Black Belt, we consider critical race theory as a possible lens through which to analyze rural racial equity work that decenters whiteness within rural schools. Critical race theory (CRT), with its ever-evolving tenets and articulations, uses theory to both understand the current and ongoing plight of racialized bodies and to disrupt and move away from white supremacy—as a theoretical frame and as a methodology. CRT provides several ways to examine racial equity work in rural spaces. For the purpose of this paper, we focus on three tenets:

racial realism, whiteness as property, and interest convergence. Although antiblackness is not explicitly rooted in critical race theory, the framework remains a critical race approach to examining rural education in the Black Belt and is thus included below.

This section is offered as the brainstorming of possible engagements to take up to examine our ongoing work. We acknowledge that any racial work in the United States is fraught with racialized white comparisons, whiteness as endemic, and white supremacy—all constructs of how we understand race in and of itself. It is incumbent upon us as racial equity researchers to move beyond a racial reality that focuses predominantly on racism, violence, and death (Woods, 2002). We pause here to admit the difficulty of decentering whiteness (Hayes et al., 2021) while offering theoretical frameworks that may center whiteness in order to understand the focus of our research. We acknowledge that decentering whiteness is the ultimate goal, and we are not there yet. However, our goal is rooted in hope and possibility for future research.

Racial realism. Racial realism is likely the most explicit way to understand racial equity work in rural schools. Racial realism is defined by Delgado & Stefancic (2001) as the "view that racial progress is sporadic and that people of color are doomed to experience only infrequent peaks followed by regression" (p. 154). Despite this unfortunate truth, racial realism may be most realistic and practical. This theoretical framework locates the actions of African Americans in the historical and continual struggle against racial oppression understanding that liberalism and white supremacy only permits incremental change followed by periods of regression. This ideal is evidenced in the 1960's civil rights movement where incremental change through court cases, non-violent protests, and advocacy work was central to the work of the movement. While the enduring reality of racism continues, movements of resistance continually demonstrate that African Americans refuse to accept oppression. As Bell (2005a) states, "continued struggle can bring about unexpected benefits and gains that in themselves justify continued endeavor. The fight in itself has meaning and should give us hope for the future" (p. 76).

Located within the historical paradigm of plantation logic, resistance is evidenced in the self-liberated maroonage of Black individuals. At no time in American history did an idyllic slave community ever exist (Lockley & Doddington, 2012) as slave plantations were sites of constant subversion, struggle, and resistance. Racial realism provides a framework that seeks justice and hope, ever striving for emancipation, in a bid to dismantle oppression and the machine of white supremacy while simultaneously recognizing that "[B]lack lives are still imperiled and devalued by a racial calculus and political arithmetic that were entrenched centuries ago" (Hartman, 2007, p. 6). Plantation logic and racial realism provide a way to both understand and organize equity work within an oppressive system while also galvanizing hope and remaining pragmatic about what change is possible and at what pace.

Whiteness as property. Succinctly, "Whiteness as property is a concept that reflects the conflation of whiteness with the exclusive rights to freedom, to the enjoyment of certain privileges, and to the ability to draw advantage from these rights" (Vaught & Castagno, 2008, p. 96). Harris (1993) eloquently addresses the construction of whiteness as property noting, "Slavery as a system of property facilitated the merger of white identity and property. Because the system of slavery was contingent on and conflated with racial identity, it became crucial to be 'white,' to be identified as white, to have the property of being white. Whiteness was the characteristic, the attribute, the property of free human beings" (p. 1721). This property of being a free human being in the context of America historically and presently undergirds how all property-including the right to public educationhas been allocated. Understanding whiteness as property, especially in the Black Belt, intensely instructs an understanding of how racial equity is ascribed in rural schools. Not only is property, the physical land itself, literally deeded and kept from Black bodies as property owners, it is the property of economic and political power. Bell (1993) expressly denotes that "an unspoken but no less certain property right in their whiteness. This right is recognized and upheld by courts and the society like all property rights under a government created and sustained primarily for that purpose" (p. 72). Examining rural racial equity work through a whiteness as property lens may provide a holistic and historic examination of how schools have been operated or who physically owns the land on which the school is located. Entrenched attachments to whiteness and white supremacy trouble how schools are populated and valued as institutions that are sufficient to educate all children of a county. This may include the examination of the white Christian private segregation academies (Tieken, 2014) that provide a separate schooling experience for whites and more economically affluent Blacks. Investigating how these private academies impact public education and the types and quality of education provided within a rural community may also include examining the ways that land ownership continues to disenfranchise Black residents due to lack of millage increases for educational improvements as well as the political power associated with land ownership.

Interest convergence. Interest convergence presents a salient lens to examine racial equity in rural schools, yet it does not provide the desired divestment from whiteness. Instead, interest convergence exposes how the white elite's interest must connect with the interest of Blacks in order to create change of conditions. According to Milner (2008), "Interest convergence stresses that racial equality and equity for people of color will be pursued and advanced when they converge with the interests, needs, expectations, and ideologies of Whites" (p.333). As defined by Bell (2000), "the majority group [white elite] tolerates advances for racial justices only when it suits its interest to do so" (Delgado & Stefancic, 2001, p. 149). More specifically, the gains made benefit the white elite materially and the middle class physically, meaning that there is little incentive to change how interest convergence operates within a space and place. However, interest convergence as a framework does provide an opportunity to expose the way that material determinism is propelling change rather than racial equity. Per this definition, examining racial equity work in rural education would be viewed through changes in education as a convergence of racial progress and majority group tolerance. This may be particularly cogent in

relationship to school consolidation, which often closes Black schools and moves Black students into districts with greater white populations, therefore physically inconveniencing Blacks while providing more economic resources, per pupil dollars, to schools with more white students. School discipline practices are another intersection that disproportionately detach Black bodies from schools through suspension and expulsion while still collecting the per pupil dollars for student enrollment.

Antiblackness. Antiblackness provides another way to wrestle with rurality in the plantation (2016)theorization South. Dumas's of constructs the antiblackness usefulness of examining school policy and discourse in order to shift the construction of the treatment of Black children and families within school communities to one that articulates a through-line of contemporary trauma from examination of historical trends and patterns. Furthermore, Dumas explicitly names the "aim of theorizing antiblackness is not to offer solutions to racial inequality, but to come to a deeper understanding of the Black condition within a context of utter contempt for, and acceptance of violence against the Black" (p. 13). Moreover, antiblackness calls us to shift our construction of what is happening to students in schools and communities in dealing with the schools as "necessary to begin thinking about strategies to combat the failure of public schools to effectively educate Black children and their success is reproducing dominant racial ideologies and the repression of the Black body" (p. 435). Therefore, antiblackness as a theoretical framework applies a race-conscious approach to examining racial equity work in rural schools that provides a way to understand the rural reality of the Black condition in the plantation South. How Black bodies have—and do-survive through violent systems can support constructing ways to combat the failure of rural public schools to address the reproduction of dangerous racial ideologies and repression of the Black body.

Wrestling with articulating and understanding racial equity work in rural schools through any one of these theoretical lenses does not absolve the fact that as researchers we must commit to decenter

whiteness. This work is nuanced as whiteness functions as a vestige of a bygone era of explicitly white supremacist decisions about schooling and access to education. Additionally, more presently it is also operating as white opportunism constructing Black bodies as necessary for athletics and diversity initiatives (Bell, 2000) while not addressing how the preponderance of Black bodies is not attractive to white families—or potential landowners. Through any of these theories, we challenge ourselves and others that wrestle with and contend with rural reality in the Black Belt to not ignore a raceconscious approach to equity work in rural spaces, even when one considers the equity work to be economically focused. An analysis of any equity work within rural schools that does not address a race-conscious approach ignores a major historical and current factor of researching systems and peoples that inhabit the Black Belt of the United States. Rurality is not fully understood without including a contextualized and sociohistorical analysis of race.

Moving Forward into Rural Educational Research

In the American South, it is insufficient to simply name race or the racialized experience of southern living. Plantations are our rurality. As McKittrick (2013) writes, "the legacy of slavery and the labor of the unfree both shape and are part of the environment we presently inhabit" (p. 2). These are the racial realities where our children attend school. Naming the place-based rural identity of the Black Belt and examining the rurality of plantation logic allows us to "fashion a philosophy that matches the unique dangers that we face, and [it] enables us to recognize in those dangers opportunities for committed living and humane service" (Bell, 1993). Similar to the work of Squire et al. (2020) in higher education, locating rural education in the Black Belt through the theoretical frame of plantation logic allows us to identify how white supremacy is operationalized, "how it operates, how it views us, which entities act as barriers to equity and justice, what we need to tear down, and how we might build something new" (para. 5).

Ultimately, we leave the reader with a challenge to examine rural education and rurality through a

racialized lens, by intensely and intentionally examining race as a consistent sociohistorical factor in understanding the research context. Within what is offered above, we hope to provide educational scholars with both a race-conscious approach and an actual racialized theoretical framework. Rural reality, especially in the Black Belt, is too often racialized as white unless the operating logic and proximity of plantations are interrogated. We invite other rural scholars to join us in a collective "ownership of one's responsibility in the continuing fight for equity and justice" (Williams & Tuitt, 2021, p. 2) that changes the historical landscape of the South from one of dispossession to belonging. Just as it is possible to understand rurality as whole—full of character and nuance—and separate from urbanicity, so too is it possible to understand Blackness as complete and total and full of radical imagination, creation, and humanity. Our hope is that this discussion opens new discursive spaces for envisioning rurality and anticolonial liberation.

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Why Hillbillies Matter in Social Studies: Hillbilly Elegy and Why WE Must Respond

Lauren Colley, University of Cincinnati

In 2016, J. D. Vance, a previously unknown author, surprisingly hit the bestseller's list with his memoir, *Hillbilly Elegy: A Memoir of a Family and Culture in Crisis*. However, historically scholars have pushed back against the stereotypes that Vance portrays and have argued for a narrative that embraces the diversity of the Appalachian region. Using content analysis, this research study investigated the frequency and context of key terms related to Appalachia across the K-12 social studies standards of states labeled as being part of the region by the Appalachian Regional Commission (ARC). Results illustrate the lack of inclusion of these terms and that, when included, they do not represent the rich history or culture of the region. These results suggest that researchers, teacher educators, and teachers should consider the ways in which standards define curriculum on topics such as Appalachia and how these definitions interact with the powerful narratives being portrayed within our mainstream democracy. Guidance and suggestions for disrupting Appalachian stereotypes within social studies education are provided.

Keywords: Appalachia, Hillbilly Elegy, social studies

Appalachia is not the 'other America' that the national stereotypes would have us believe; instead, it may be more of a bellwether of the challenges facing our larger society. . . Popular stereotypes have tended to blame the land or the culture of Appalachia for regional disparities, but the real uneven ground of Appalachia has been the consequence of structural inequalities based on class, race, and gender, and on political corruption, land abuse, and greed.

—Ronald D. Eller, *Uneven ground:*Appalachia since 1945

In 2016, J. D. Vance surprisingly hit the bestseller list with his memoir, *Hillbilly Elegy: A Memoir of a Family and Culture in Crisis*. Since then, policymakers have used Vance's memoir to support conservative fiscal policy, and media outlets have used it as an explanation for the election of President Donald Trump. As Vance became an unwanted spokesperson for the region, historian Elizabeth Catte reminds us that "the story of Appalachia cannot be separated from the story of

the United States and the historical forces that have shaped us" (McEvers, 2018, para. 5).

Even with its popularity, *Hillbilly Elegy* has been met with sharp critiques, particularly by Appalachian sociologists, historians, artists, activists, and citizens. Historian T. R. C. Hutton (2019) explained that Vance's book wasn't written for the average Appalachian,

but rather [for] a middle- and upper-class readership more than happy to learn that white American poverty has nothing to do with them or with any structural problems in American economy and society and everything to do with poor white folks' inherent vices (p. 23).

Historically, scholars have chronicled the diversity of the Appalachian region, pushing back against the stereotype of the white, blue collar, dysfunctional hillbilly that Vance portrays (Catte, 2018; Eller, 1982, 2008; Harkins, 2004; McCarroll, 2018). Still, the popularity of Vance's book reminds

us that the "hillbilly" is an easy scapegoat to the problems of our democracy and nation and a distraction from the structural problems of poverty.

Thus, there is a need for a more critical reflection and democratic discourse regarding the current state of our nation and the othering of Appalachia. Although social studies education has taken on many of the structural barriers that oppress our citizenry (i.e., race, gender, sexuality), there has yet to be a full examination of the ways in which class and, in particular, the intersections of whiteness and poverty contribute to an everpolarizing America. In this article, I argue for the inclusion of the voices of hillbillies into the conversation of social studies curriculum and pedagogy while asking other teacher educators to join me as I speak truth to power and address the myth of Appalachian Trump country. Results suggest that these myths, narratives, and stories of Appalachia are likely linked to the direct exclusion of the hillbilly voice from our social studies standards and curriculum. For social studies teachers and teacher educators to respond directly to these national dialogues, I argue that there must be ways to bridge the gap between the work of Appalachian scholars and our social studies curriculum. I provide guidance on what such pedagogy might look like.

The Historic Othering of Appalachia

Come and listen to my story about a man named Jed

A poor mountaineer, barely kept his family fed.

—Paul Henning, The Ballad of Jed Clampett

The historical colonization and othering of the Appalachian region and its people has been well documented by historians and sociologists (Eller, 1982; Lewis et al., 1978; Shapiro, 1978). In their 1978 groundbreaking work, Colonialism in Modern America: The Appalachian Case, Lewis, Johnson, and Askins chronicle the history of exploitation of the economies, land, and minerals from the Appalachian region. They arque that exploitation is a form of inner colonialism happening within the United States to a region of people who were seen as inferior. Furthermore, Shapiro (1978) asserted that there was (and ostensibly still is) a myth of Appalachia othering created by missionaries, progressive reformers, and others who drew their own conclusions about what they witnessed in the region against their own narratives of America and progress. Stimulated by local color literatureⁱ, progressives and missionaries used these narratives to justify their "uplift" of those living in the mountains, all of which provided fodder for the "discovery" of Appalachia during the 1960s and the War on Poverty.

However, since the 1970s, historians and sociologists have worked diligently to change this narrative of Appalachian othering. groundbreaking work *Miners*, Millhands, Mountaineers: Industrialization of the Appalachian South, 1880-1930, Eller (1982) chronicled the progression of the lumber and coal industries into Appalachia. Countering the narrative inhabitants of the region before 1880 were merely hillbillies frozen in time, Eller argued that mountaineers were involved in lively trade. He explained that as the region shifted toward industry, mountaineers became agents not only of their own employment with lumber companies or coal operators but also were active participants in union formation and union strikes against these same corporations. Other scholars noted the long history of resistance and labor strikes within the region (Banks, 1999; Billings et al., 1999; Gaventa, 1982; Maggard 1999; Stewart, 2018). Appalachian scholars have also long explored the breadth and diversity of the region, examining the lives of African Americans, Native Americans, the LGBTQA+ community, and the strong tradition of activism within the region (Carney, 2005; Catte, 2018; Cook, 2000; Hubbs, 2014; Inscoe, 2001; Lewis, 1987; Rice & Tedesco, 2015).

However, the recent attention to Appalachia brought about through the election of Donald Trump and the popularity of *Hillbilly Elegy* has once again mainstreamed ideas of Appalachian otherness. As sociologist Dwight Billings (2019) suggests, without reflection and critical attention to these issues, "Appalachia became what I [Billings] call 'Trumpalachia,' a media-constructed mythological realm, backward and homogenous" (p. 51). Thus, the essentialism and universalism expressed in *Hillbilly Elegy* "promotes toxic politics that will only further oppress the hillbillies that J. D. Vance

professes to love and speak for" (Billings, 2019, p. 55). Furthermore, the silencing of diverse Appalachian voices, experiences, and histories has severe consequences to our broader understandings of "Trumpalachia." As Catte (2018) noted,

If it is appropriate to label a small but visible subgroup as unambiguously representative of 25 million people inhabiting a geographic region spanning over 700,000 square miles, then we should ask a number of questions. Where were the "Bernie Country" pieces about Appalachia? There are more people in Appalachia who would identify as African American than Scots-Irish, so where were the essays that dove into the complex negotiations of Appalachian-ness and blackness through the lens of the election? I associate contemporary eastern Kentucky with grassroots prison abolition, so where were the essays about how a presumed Trump victory would imperil that work? West Virginia has the highest concentration of transgender teenagers in the country, so why didn't anyone examine this facet of "Trump Country" and how the election might reverberate in their lives? In April, filmmakers in West Virginia hosted the fourth Appalachian Queer Film Festival. How did that play out at the close of Trump's first one hundred days in office? (p. 52)

Dialogues such as these are missing from our analysis of the 2016 election, our understandings of poverty and rural America, and most importantly from our understandings about the effects that such silencing has on our social studies teachers and students. For us to fully embrace democratic discourse within the social studies, then there must be critical reflection and dialogue about these silences and myths. And yet, these mountaineers and their histories are seemingly removed from our social studies curriculum and perhaps more importantly, our research. As a former social studies teacher, current teacher educator, and proud Appalachian hillbilly, I asked, in what ways are hillbillies represented in social studies standards for states that are labeled "Appalachian"?

Conceptual Framework

The Academy is not tuned in to rural America, and it is time we start talking about it.

—Dr. Adam Jordan & Dr. Todd Hawley, Including "All Y'all"

This study borrows the ideas and the frameworks of boundary theory as represented in Wray's 2006 work Not Quite White: White Trash and the Boundaries of Whiteness. Wray details the history of the term "white trash," which he uses to liberally encompass any and all words that identify poor whites into a social group. Wray's book chronicles the historical development and usage of terms such as "poor white trash" that trace their roots to colonial America. Wray details the term's expansion into the South during Reconstruction and explains how the term became a part of the national dialogue through the political arguments of the late 19th century and early 20th century concerning eugenics and eradicating hookworm disease. By tracing this lineage, Wray argues that what was once a social difference along the boundary lines of class and race became a way to use social domination and power through political and legal structures (i.e., reform movements, laws, medical personnel, and politicians labeling poor whites as lazy, dirty, or feebleminded). Using boundary theory and historical inquiry, Wray connects historical events to the boundaries of class and whiteness in order to illuminate the lines of social power, domination, and inequality.

Wray's historical and theoretical framework connects directly to the history of othering within the Appalachian region. Hillbillies as aforementioned have long been seen not only at these boundary lines of whiteness and class but also have been used as an "other" group in order to further political and national dialogues surrounding the nation's ills (i.e., War on Poverty and Trumpalachia). Furthermore, hillbillies are often seen as the monolithic identity of the Appalachian region. Such othering allows political and national dialogues to look past the ways in which social capital has been used against those living in the region in order to further exploit its people, economics, and resources. From timber and coal extraction to the directed efforts to purposefully spread opioids into

the region, the region faces numerous structural barriers that directly affect its diverse peoples (Macy, 2018). Catte (2018) notes:

The average Appalachian is not, then, a white, hypermasculine coal miner facing the inevitable loss of economic strength and social status, but the average Appalachian's worldview may be impacted by individuals with cultural capital who are constantly assuming we are all made in that image (p. 14).

Using this framework of boundary theory, Appalachian otherness, and historical inquiry allowed me to examine the ways in which the social differences marked by the term hillbilly are ignored by the social domination and inequality represented within the social studies standards of Appalachian states.

Method

It doesn't come from nowhere. And it doesn't come from individual genius, which I think is overrated. It comes out of the language.

—Wendell Berry, as cited in Petursich, Going Home with Wendell Berry

In this content analysis (Krippendorf, 2013), I analyzed the state standards from the 13 U.S. states identified as being part of the Appalachian region by the Appalachian Regional Commission (ARC). I aimed to address the following research questions:

- 1. What is the frequency of common terms associated with Appalachia in the social studies standards of ARC defined states?
- What is the context of the terms as they are used within the social studies standards of ARC defined states?

Using content analysis allowed me to focus on both the frequency of the terms within the standards but also to make "inferences from texts (or other meaningful matter) to the contexts of their use" (Krippendorf, 2013, p. 24). I focused my analysis on the 13 states that were specifically outlined as being part of the Appalachian Region from the Appalachian Regional Commission. According to the ARC,

The Appalachian Region, as defined in ARC's authorizing legislation, is a 205,000-square-mile region that follows the spine of the Appalachian Mountains from southern New York to northern Mississippi. It includes all of West Virginia and parts of 12 other states: Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia. Forty-two percent of the Region's population is rural, compared with 20 percent of the national population. (para. 1)

The ARC notes that the Appalachian Region is diverse both geographically and economically. They explain that within Appalachia, "some communities have successfully diversified their economies, while others still require basic infrastructure such as roads and water and sewer systems" (ARC, para. 3). Of the 420 counties within the Appalachian Region, 80 rank as being the most economically depressed and rank within the worst 10 percent of the nation's counties.

Because each of the 13 states had varying definitions for what subjects were included in the social studies, I relied upon each state's designation when standards were retrieved from the state's Department of Education's websites. After examining the literature in Appalachian history and Appalachian studies, I formed a list of ten *a priori* codes related to the history, geography, government, and economics of the region. Table 1 outlines each of the *a priori* codes and the term's connection to Appalachian scholarship.

Using each a priori code as a unit of analysis, I then searched for each term within each set of state standards. For each state, I recorded not only the frequency of the use of the term but also the context of each term. For the context, I noted the grade level and content subject in which the term was used as well as a description of how the term was included within the standard.

Table 1A Priori codes Used as Unit of Analysis

Term	Connection to Appalachian Scholarship			
Appalachia/n	Name for the geographic region that stretches between Mississippi to New York (ARC). Other scholars have noted that the use of Appalachian refers to a culture (Catte, 2018; Eller, 1982, 2008).			
Coal	The history, economy, and diversity of coal mining within the Appalachian region has been well documented by Appalachian scholars, economists, and historians (Cook, 2000; Eller, 1982; Lewis, 1987; Scott, 2010; Shifflett, 1995).			
Feud	The stereotype of family feuds continues to persist within the Appalachian region (e.g., Hatfields and McCoys), but scholars have examined the history of feuding in the region (Blee & Billings, 1999; Hutton, 2013; Stewart, 2018; Waller, 1988).			
Hillbilly	The most well-known stereotype of the Appalachian region. The term's history and its proliferation across literacy, media, and social norms has long been studied by Appalachian scholars (Ballard, 1999; Gaventa, 1982, 2019; Harkins, 2008).			
Mining	Appalachian scholars have focused heavily on the economic, geographic, and historical impacts of mining within the region (Billings & Blee, 2000; Eller, 1982; Scott, 2010; Williams, 2002).			
Mountaineer	A term used commonly in West Virginia, but also regionally to describe a person from the Appalachian region. Was part of the state motto for West Virginia as it broke with Virginia to stay with the Union during the civil war (Eisenberg, 2020). Used both in stereotypes and as a description of resilience (Eller, 1982; Shapiro, 1978; Wilson, 1999).			
Poverty	An economic marker of the region as outlined currently by the ARC and the lists of economically distressed counties. A marker of the region historically by national legislation such as the "War on Poverty" (Billings & Blee, 2000; Kiffmeyer, 2008).			
Rural	42% of the region's population is rural according to the ARC and it is an underlying theme of the discussion around the region's identity (Straw & Blethen, 2004; Williams, 2002).			
Scots-Irish	There is a documented history of the ways in which people of Scots-Irish descent moved into the region in the late 18th century as well as challenges against this narrative (Lewis, 1987; Dunaway, 1996; Williams, 2002).			
Strike	Scholars have long documented the ways in which Appalachians have resisted and used collective bargaining tactics in their activism (Banks, 1999; Gaventa, 1982; Maggard, 1999; Stewart et al., 2018).			

I organized the data by tallying the frequency of each term across all 13 states' social studies standards. Then I analyzed the descriptions of the context for each term by looking for underlying patterns and themes across the 13 states. I frequently disassembled and reassembled the data in order to code by terms, context patterns, state, and grade levels (Yin, 2011).

Limitations and Reflexivity

I recognize the limitations within this study that influence the generalizations that can be extrapolated from these results. I recognize that although standards serve as the first reference point for many teachers, numerous individual teachers use these as the minimum requirements of what should be taught and are able to create dynamic and powerful social studies curriculum for their students that stretch beyond the standards. Furthermore, I acknowledge the inherent limitation in examining only the standards of the 13 states described as the Appalachian Region by the ARC and by my choices in a priori codes. I note that other researchers could different have made methodological decisions that could shape their findings differently.

The decisions I made were inherently linked to my beliefs as a researcher but were also influenced by my personal life. I not only grew up within the Appalachian Region but can also trace hundreds of years of my ancestry to the area. I strongly identify as being Appalachian and am proud of my heritage. In my personal and scholarly work, I have committed to studying Appalachian history and sociology and am deeply dedicated to the goal of changing the narrative surrounding Appalachia. However, I also believe that my personal connection and devotion to these goals, and to Appalachia, situate me in the place of the insider and allow me to communicate to the ivory towers what I hear at home in the hollers.

Results

Where I come from the mountain flowers grow wild

The blue grass sways like it's goin out of style God fearin' people simple and real 'Cause up on the ridge folks that's the deal Well my daddy worked down in the dark coal mine

Shovelin' that coal one shovel at a time Never made a lot money din't have much But we're high on life and rich in love

-Loretta Lynn, High on a Mountaintop

Lack of Appalachian Words

Across the 13 states, the specific terms were found with varying frequencies. The context in which those terms occurred is important, but that will be discussed at a later point in the paper. The term Appalachia was only used in one instance by Maryland to refer to the Appalachian region. Aside from that specific instance, the term Appalachia was absent from the standards. However, the term Appalachian was used 15 times by seven different states. Coal was used by six different states and mentioned 16 different times. The words feud and hillbilly were absent from every state's standards. Mining was mentioned 20 different times by eight different states, and interestingly, poverty was mentioned 19 times by nine different states. Rural was the most used term, appearing 35 different times and found in 12 states' standards. Scots-Irish appeared only two times and was only used by two states, North Carolina and Virginia. Lastly, the term strike was used eight different times by five separate states.

The Stories That Are Told

Throughout all of the state standards, there are numerous stories that are being told about the importance of the history, geography, politics, and economics of the Appalachian region. Overall, I found that the stories or ideas that are presented in the standards do not align with the current research on the region as a whole. Some of the words that most strongly align to the national dialogue of the Appalachian region, Appalachia, rural, and poverty,

Table 2Frequency Count of Appalachian Related Terms

Term	Frequency in which each term is used	Number of states that used the term	Names of the states that used the term
Appalachia/ Appalachian	1 Appalachia 15 Appalachian	7	Alabama, Georgia, Kentucky, Maryland, Tennessee, Virginia
Coal	16	6	Alabama, Maryland, New York, Tennessee, Virginia, West Virginia
Feud	0	0	N/A
Hillbilly	0	0	N/A
Mining	20	8	Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, Tennessee, West Virginia
Poverty	19	9	Alabama, Georgia, Maryland, Mississippi, New York, South Carolina, Tennessee, West Virginia
Rural	35	12	Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, South Carolina, Tennessee, Virginia, West Virginia
Scots-Irish	2	2	North Carolina, Virginia
Strike	8	5	Alabama, Mississippi, South Carolina, Tennessee, West Virginia

are not presented in the standards as being connected to the rich history and culture of the Appalachian region. Although this might be helpful in terms of not presenting overarching stereotypes about the poor rural Appalachian family, it does nothing to create a social studies curriculum that explains the rich history, activism, and complex geography and economics of the region.

When examining the standards for the term Appalachia or Appalachian, it appears as though there are numerous examples as I found the term a total of 16 times throughout the states. However, when questioning the context of how the term was being used, it became clear that it was being used

as a geographic marker. Twelve of the 16 mentions are in the context of just the Appalachian Mountain Range, two were in the context of the Appalachian Plateau, and one was as a regional descriptor. Further, when exploring what students would be asked to do with reference to these geographic markers, they were mostly being required to locate them as a physical feature. For example, in the third grade standards for Tennessee, students are asked to "identify major physical features on a map," and under "mountains," it lists "Appalachian" as a range to identify (p. 3 standard 3-22). In Georgia's high school world geography standards, students are asked to consider how physical features shape settlement patterns. Standard SSWG1a reads,

Identify and describe climates and locations of major physical features of North America. Explain how these physical characteristics impact settlement patterns including, but not limited to, the Mississippi River System, the Appalachian and Rocky Mountains, and the Canadian Shield (p. 136).

Moreover, only six of the 13 states include the word Appalachia/n even though all of the states contain at least part of the Appalachian Mountains within their borders. There is no dissection or mention of what constitutes the Appalachian Region or why it would be important for these particular states to discuss the federal definition of the Appalachian Region given by the Appalachian Regional Commission.

Rural was the most cited word throughout all of the standards. It was also the most heavily used across the states as only Pennsylvania's standards did not have the term included. However, the term was most often used as a contrasting binary to urban regions or places. Of the 36 mentions, 25 were in the context of students either examining or understanding rural versus urban. Students were mostly asked to investigate the differences, growth, and migration from rural areas to urban areas in the context of industrialization. The following examples in Table 3 highlight some of the ways students were asked to examine settlement patterns or migration from rural to urban areas throughout the various states' standards.

Table 3 Context Examples of the Use of the Term Rural

State	Grade Level/Course	Standard
Alabama	7th Grade Geography	Classify spatial patterns of settlement in different regions of the world, including types and sizes of settlement patterns. Examples: types—linear, clustered, grid sizes—large urban, small urban, and rural areas (p. 45).
Maryland	3rd Grade Geography	Describe population distribution of places and regions such as rural and urban (p. 4).
Mississippi	High School World History	Investigate the mass movement of rural-to-urban migration as a result of industrialization (p. 62).
South Carolina	3rd Grade South Carolina Studies	Explain the causes and impact of emigration from South Carolina and internal migration from rural areas to the cities, including discrimination and unemployment; poor sanitation and transportation services; and the lack of electricity and other modern conveniences in rural locations (p. 27).

There are a few instances where the standards ask for students to examine life in rural areas, and Georgia, South Carolina, and Virginia all include historical references to the Tennessee Valley Authority and rural electrification in standards about the New Deal. Kentucky is the only state that asks students to dive deep into what rural and urban mean in a larger societal context. In Kentucky's high school geography standards, it reads, "evaluate reasons for stereotypes (e.g., all cities are dangerous and dirty; rural areas are poor)" (p. 699). Allowing space for students to consider the definitions, stereotypes, and meanings of rural and urban is a high-level task that should be present in all of the standards.

Poverty is a term that is most heavily associated with the Appalachian region in public and societal context. And while there was a high number of frequency counts across the standards for the term (19 counts), it is mostly presented as a societal problem at large and not one connected to the individual states, governments, stratification. Eight of the 13 states use the term but in a variety of ways. The standards in Alabama and South Carolina reference the term in relationship to the historic widespread poverty in the Great Depression. Georgia's only mention is in reference to reasons for Latin American migration, and Tennessee only mentions it as a historic reference to the War on Poverty. Maryland, New York, and West Virginia all deal with poverty in more analytical ways. Specifically, the standards look at the relationship between governments and poverty, the economic challenges to lawmakers, and even theories of poverty. For example, Maryland's seventh grade civics standard 3A reads, "evaluate the effectiveness of the various policies of governments in addressing issues, such as health, poverty, crime, security, and environmental concerns" (p. 1).

The irony in examining the contexts of the *term* poverty in the Mississippi standards was that although the state is ranked as the poorest in the United States, the usage of the term was highly problematic. Mississippi was the only state to align the term poverty with the term African American. There was a general theme that the civil rights movement improved economic life for African

Americans and, yet, that it is a current contemporary problem for African Americans and also those in urban spaces.

The ways in which each of the terms are presented tell strong stories about what the terms mean and the importance of the terms in relationship to the content that is being presented by the standards and by educators. These stories often diminish the complexity of these terms and provide a singular and problematic historic and contemporary narrative to students.

The Stories That Are Left Out

While coal had many mentions within the standards, the context of those mentions was usually the referencing of coal as a natural resource or connected to industry. It was not used in terms of how it connected to specific locations within the Appalachian region that are known for mining, such as Eastern Kentucky, Southwest Virginia, West Virginia, Western North Carolina, and Eastern Tennessee. Similarly, mining was rarely mentioned in the context of Appalachia but was usually discussed in terms of industrialization, the impact of mining, mining as a way to extract natural resources, mining as an effect of the idea of manifest destiny, and mining as a result of human/environment interaction. West Virginia, however, mentioned mining disasters within their standards within eighth (particularly geography standards). With the amount of natural resource extraction and notable environmental/mining disasters that have taken place in Eastern Kentucky, Southwest Virginia, West Virginia, Western North Carolina and Eastern Tennessee, one would expect to see mining at the forefront of social studies standards in those states at the very least, but such stories are absent.

Relatedly, strike was discussed as it related to the Pullman strike, textile strikes, as well as a silver strike, but most standards that addressed the term strike were unrelated to Appalachia. The only state that somewhat addressed strike in the context of Appalachia was West Virginia. Even then, West Virginia only stated that strikes were connected to the economy and history of West Virginia, but no specific details were given as to how strikes were connected to their economy or history. Even though

groups like the United Mine Workers Association (UMWA) fought tirelessly for the rights of miners in Appalachia through the use of strikes, no such stories are found within the standards.

Additionally, Scots-Irish was barely mentioned at all. As identified above, only two states discussed this term, North Carolina and Virginia. North Carolina discussed the term as it related to the

origin of beliefs in the state along with connections to the Highland-Scots. Virginia addressed Scots-Irish in terms of how colonial America represented European immigration. While the presence of traditional music, culture, and storytelling related to the identity of Scots-Irish in the Appalachian region has been a hallmark of Appalachia, none of those narratives are found within the standards.

Table 4Frequencies of All Terms by Grade Level or Course

Grade Level/Course	Frequency Counts of <u>All</u> Terms by Grade Level**	
Kindergarten	1	
1st Grade	2	
2nd Grade	6	
3rd Grade	11	
4th Grade	6	
5th Grade	3	
6th Grade	4	
7th Grade	8	
8th Grade	15	
High School U.S. History	18	
High School World or Global History	7	
High School Geography/World Geography	13	
High School Economics	4	
High School American Government	2	
High School State History/Studies	7 (4 Virginia; 2 Tennessee: 1 Mississippi)	
High School Sociology (Elective)	4	
High School Elective (non-sociology)	1 (Law-Related Ed) 2 (African American Studies) 1 (Contemporary Studies) 1 (Minority Studies)	

^{*}Many of the state standards for high school are not grade leveled but are separated by course subject. I chose to follow this same model in the frequency counts by grade level.

^{**} Of all 11 terms, there was a total frequency count of all terms across all state standards of n=116

The stories that are not being told in the social studies standards related to coal, mining, strikes, and the Scots-Irish are troubling. Much of Appalachian history and culture has been shaped by these aspects, and their absence in the standards is equated with the erasure of history related to the Appalachian region and people. Folk singers, poets, and writers have worked to preserve such history, but currently students are not being taught about any of these narratives. The history of the Appalachian region and people, which is diverse, eclectic, and filled with creativity and resistance, is being erased through the absence of Appalachia within the standards.

Whom Are We Telling the Stories To?

When examining the frequencies and contexts of the usages of each term in the state standards, there were common themes not only around which stories were being told or left out but also around who they were being told to. The 11 terms were mentioned a total of 116 times across all of the states, but when examining which grade level they were mentioned in, it became clear that most of the content was present at the secondary level. Table 4 explains how many times terms were mentioned by grade level or course.

Of the 116 frequency counts, 41 were in grades K-7 while 75 were in grades 8-12. Not surprisingly, the highest number of terms per grade level (18) were found within high school U.S. history. When examining the highest count (11) in third grade, only six states had terms within their third grade standards. Three of the six of these states focused on geography at this grade level (Alabama, Maryland, and Tennessee), two were U.S.-focused (Georgia and West Virginia), and one was focused on state history (South Carolina). A similar theme occurs when looking at the eighth grade counts. Although the count of terms was fairly high (15), it was across only five states. Three of these states focused on state history (Georgia, South Carolina, and West Virginia) while the other two were focused on U.S. history in the eighth grade (Maryland and Tennessee). Because the counts are focused mostly in the secondary grades and within U.S. history, geography, and state history, there are

particular grade levels and courses that these stories are being shared within. Table 5 highlights which grade levels each term was found in across all of the states.

Most terms can be found across multiple grade levels and across grade bands (Elementary, Middle, Secondary). However, both Scots-Irish and strike are only found in grades 8-12 and the term poverty is found 16 of its 19 times in grades 7-12 and only three times at the elementary level. Although the intention of the standards or the standards writers was not investigated, the lack of inclusion of these terms in elementary level standards signals a possible withholding of controversial content.

Discussion

Appalachia's problems are neither unique nor a product of some strange and peculiar culture — in fact, they're deeply interconnected with the political and economic life of the nation as a whole. The lessons of its past speak to fundamental inequalities within American society today that must be acknowledged if we are to build a different future.

—Ronald D. Eller, Fixing Appalachia is the First Step to Fixing America

Despite the vast attention given to Appalachia by both scholars (e.g., Billings, 2019; Catte, 2018; Eller, 2008) and popular authors (e.g., Vance, 2016), its absence in our social studies standards and curriculum is shocking. Although this may not be purposeful, the lack of connection to terms and themes that help to define the region within the standards is vastly underwhelming. Eller (2008) explained that often it is easier for states and our nation to distance themselves and disconnect from Appalachia because of the unsettling issues that plague the region (i.e., poverty, addiction, destruction of the environment, undereducation). Thus, in order to change the narratives, standards, and curriculum in social studies education, we have to be willing to investigate the history, culture, and economics of poor whites in the first place.

 Table 5

 Individual Term Frequencies across All States by Grade Level

	K	1st	2nd	3rd	4th	5th	6th	7th	8th	High School
Appalachia										1
Appalachian			2	3	2				3	3
Coal			1	2		1	1	1	1	3
Feud										
Hillbilly										
Mining			1	1	2	1	1	2	1	8
Mountaineer										
Poverty				1	1		1	1		7
Rural	1	1	3	2		1	1	1	3	9
Scots-Irish									1	1
Strike									2	3
TOTAL BY GRADE LEVEL*	1	1	7	9	5	3	4	5	11	35

^{*} For each grade level, per each term, n=13, the number of states examined.

By connecting historical events to issues such as class and whiteness, Wray (2006) provides a lens to help to explain both the ills of the Appalachian region but also the power structures that continue to dominate the region. West Virginia does not mention the word Appalachia in its standards, and when the term is mentioned in other state's standards, the region is related only to its geographic physical features (mountains and plateaus). Such a glaring absence raises questions about the reasons for alienation. Eller (2008) argued that many people within Appalachia do not use the term Appalachia unless they are talking about the town of Appalachia, located in Wise County, Virginia. However, examining the region's deep history as a place of extracting minerals, timber, and educated people (see Vazzana & Rudi-Polloshka,

2019) provides a space for social studies educators to discuss the boundary relationships between whiteness and class and to investigate social domination and power (Wray, 2006).

The national dialogues surrounding Appalachia often dismiss the region's history, culture, and economics and instead rely upon stereotypes about the white poor coal miner to enhance their conservative and/or liberal agendas (Catte, 2016; Wray, 2006). Such absences and stereotypes do little to help teach Appalachians about the place they call home. Social studies educators have long argued that seeing yourself in the narratives and fabric of history allows students to better develop complex historical understandings (see Epstein, 1998). Therefore, if as educators we really want to be a field that is inclusive of ALL voices, we need to

include the voices and history from the hollers, mountains, crevices, and crannies to really teach about and highlight the Appalachian region in ways that explore their unique boundary positions. Labeling the region as a group of Trump supporting, ignorant, white trash subsequently silences an entire group of people (Catte, 2008; Wray, 2006). If as social studies educators, we are serious about understanding our national dialogues, trends in politics, the depths of our nation's ills, and understanding the various ways in which social difference occurs, then hillbillies must be included in our standards and curriculum so that the full breadth and diversity of the region, and many more that are similar to it, may be examined in ways that stretch beyond the stereotypes.

Conclusions

Keep in mind that a man's just as good as his word It takes twice as long to build bridges you've burned

And there's hurt you can cause time alone cannot heal

Keep your nose on the grindstone and out of the pills.

—Tyler Childers, Nose on the Grindstone

Educators, in many ways, are the front lines of resistance. The numerous teacher strikes across the country in the past year highlight the ways that educators are taking informed action to stand up for their rights and goals. I argue that as social studies teacher educators and researchers, we should do the same. It is easy for the academy, liberals, and conservatives to blame the election of Donald Trump on the ignorant racist hillbilly, but the truth is more complicated. Carnes and Lupu (2017) noted that many of the voters without college educations who supported Trump were relatively affluent, and Billings (2019) explained that data from the primaries show that Trump supporters' yearly incomes averaged \$72,000. As social studies educators, our failure to address these issues and the failure to speak against the narrative of Trumpalachia does not only silence an entire region of people, but it misguides us into accepting false narratives about our democracy and citizenry. Addressing these myths and countering the voices of those such as Vance is the only way for us as a field to heal the pain and hurt caused by these stereotypes and others like them. In order to open up this discourse, I provide the following as suggestions for social studies teacher educators and K-12 social studies teachers who would like to join me in this fight.

- 1. Assign critical readings about Appalachia such as What You Are Getting Wrong About Appalachia, Appalachian Reckoning, Transforming Places: Lessons from Appalachia, Uneven Ground, Appalachians and Race, Back Talk from Appalachia, Power and Powerlessness.
- If a teacher assigns Hillbilly Elegy, I suggest that it needs to be assigned along with the previous readings or with one of the many contemporary articles or blogs that challenge Vance's narrative.
- Educators can follow the #therealappalachiasyllabus on Twitter for ideas about how to further disrupt the hillbilly stereotype.
- 4. An assignment around Appalachia could involve students listing perceptions of Appalachia, reading the suggested materials above, and then revisiting those perceptions as a class to discuss the dangers in stereotyping any group or culture of people.
- Assignments on Appalachia should reflect the rich history of artistry, musicians, writers, and resisters who occupy the region.
- Social studies researchers should focus attention on researching rural social studies education and the particular problems that regions such as Appalachia face.
- There should be a direct challenge on the state, district, and classroom level against the exclusion of Appalachian voices in the social studies curriculum by both teacher educators and teachers.

Lastly, I challenge our social studies field to put our noses on the grindstone and begin the difficult work of helping us tackle this new line of inquiry.

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End Note

¹ Local color literature is often characterized as regional fiction and poetry that focuses on the dialects, customs, and characters of a region. Shapiro (1978) used the term to describe the short story writings of missionaries and others who came to Appalachia and wrote about the people in the region in ways that created a "strangeness" and othering of the region by dividing it from the American ideals of nationality and progress.

Rural Teachers' Cultural and Epistemic Shifts in STEM Teaching and Learning

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This article focuses on the ways in which integrated curriculum can improve STEM teaching and learning within rural spaces. Using a design-based research approach, this study focuses on rural teachers' experiences of professional learning and development training as they learn to engage computing and maker technologies in their elementary classrooms as tools for teaching students about difficult histories of immigration, migration, and forced relocation across the United States.

Keywords: rural education, STEM, social studies, design-based research

Meaningful experiences with science, technology, engineering, and mathematics (STEM) help students develop strong STEM identities that support their further interest and academic performance (DeWitt & Archer, 2015; Tan et al., 2013). An important part of sustained interest in STEM opportunities for K-12 students is a sense that "people like them" engage legitimately in STEM disciplines. For example, Archer et al. (2010) found that even students with active interest in STEM and strong academic achievement in STEM courses may feel that their identities are incompatible with full participation over time. Such perceptions of identity incompatibility may span race, gender, and socioeconomic class (Archer et al., 2010, 2012; Carlone & Johnson, 2007). Accordingly, effective educational strategies for building equitable pathways to STEM participation over time requires the opportunity for students' diverse identities to be meaningful and legitimate aspects of classroom STEM activities (Calabrese Barton & Tan, 2019; Tofel-Grehl et al., 2017).

With early experience important to the development of interest in STEM fields, preparing teachers to engage students in STEM learning in ways that proactively engage their identities is of critical importance. However, rural teachers receive

less training and professional development (PD) opportunities than their urban counterparts (Howley & Howley, 2004; Oliver, 2007; Rude & Brewer, 2003; Weitzenkamp et al., 2003). Designing professional learning for rural teachers requires attentiveness to and understanding of their unique community needs. This paper explicates the iterative design of a teacher PD workshop and curriculum targeting rural teachers and students in an integrated set of computer science, science, and social studies projects that emphasize the salience of students' personal, community, and cultural identities in lessons that incorporate STEM concepts alongside the study of local history.

Background

The ongoing process of economic globalization impacts communities worldwide. With efforts to create a "free flow of capital, people, news and information via electronic media from one country to another" (Abdul Razak, 2011, as cited in Paziresh et al., 2013, p. 116), many smaller, less mobile communities are excluded from initiatives and processes intended to further international efforts toward globalization. Educational goals and content shift to reflect the larger national and international goals established for economic reasons, such as

America's push towards STEM dominance (e.g., the America Competes Act of 2007). The shifting national and international educational goals and standards often create mandates for communities without providing resources to address them.

According to the 2010 U.S. Census, 51 million residents claim the rural United States as their communities with home. living in varied geographies, demographics, and economic interests. Tieken (2014) observed, "Rural America covers Native American reservation communities in the West, small mostly white New England fishing villages, midwestern farm towns with growing Latino African populations, American communities scattered along the Mississippi Delta, and isolated hamlets tucked into the Appalachians and Rockies" (p. 6). And yet, ruralness is more than geography. Tieken (2014) suggests: "the rural in rural is not most significantly the boundary around it, but the meanings inherent in rural lives, wherever lived... it is not simply a matter of boundaries. It constitutes one's identity; it shapes one's perspectives and understandings; and it gives meaning to one's daily experiences" (p. 5). Teachers in rural spaces are often products of rural communities themselves as research indicates 80% of rural teachers are employed in schools within 13 miles of their hometown (Miller, 2012). This de facto "grow your own" relationship indicates that rural teachers' experiences have made them aware of the nuances and necessities associated with teaching in rural schools (Lavalley, 2018).

Prior to the industrial revolution, the United States largely embodied a rural identity. However, as industrialization redefined the U.S. experience, rural communities were completely transformed. Declining populations and economic instability have necessitated that rural schools do more with less. Furthermore, with school funding models focused on localized tax revenue to support local districts, rural spaces with typically lower taxes suffer from a weaker ability to raise funds to support education. As standardization and accountability measures increased in the latter half of the twentieth century, rural schools were expected to maintain adequate yearly progress alongside their urban and suburban counterparts despite decreased funding and access to necessary resources (Lavalley, 2018). Further, the needs, experiences, and contexts associated with teaching and learning in rural communities have largely been ignored given the attention to urban and suburban schooling. Today, rural schools are responsible for the education of one fifth of students in the United States, yet reliable access to high-quality professional development remains challenging for most rural teachers.

Rural Schooling

Rural students, especially those of lower socioeconomic status, have far fewer opportunities than their urban and suburban peers to take school computer science (CS) courses (Google & Gallup, 2016) and have less access to technology both in and out of school (Croft & Moore, 2019). While 29% of all public-school graduates have taken courses in biology, chemistry, and physics, only 20% of rural high school graduates have done so (Kena et al., 2016). In addition to lacking CS opportunities and after school clubs (Google & Gallup, 2017), rural students lack fundamental Internet connectivity outside of school (Croft & Moore, 2019). This overall lack of access for rural students is exacerbated for non-white students (Babco, 2003; Google & Gallup, 2016; Horrigan & Duggan, 2015). Yet, in a survey disseminated by Google and Gallup, they found that only 34% of rural principals and 36% of small-town principals felt that computer science education should be integrated into other school subjects in spite of growing evidence that knowledge of computer science is needed for many rural jobs (Butrymowicz, 2012; Mader, 2014; McFarland, 2016). Given this landscape, it is imperative that we provide opportunities for rural teachers and students to engage in integrated STEM learning.

In contextualizing the rural student experience, understanding rural teacher experiences and opportunities becomes critical to supporting and facilitating rural educational change. Research on rural education demonstrates that teachers understand the necessity of adapting their practices to meet the needs of their rural students (Kelly, 1986; Miller-Lane et al., 2006). However, rural teachers typically have fewer PD opportunities due to barriers of physical distance, limited resources, and staff availability (Howley & Howley, 2004; Oliver, 2007; Rude & Brewer, 2003; Weitzenkamp

et al., 2003). In addition, they often rely on the income from second jobs to meet their financial obligations, meaning they are unable to take advantage of optional PD opportunities offered after school hours, on weekends, or during summers because they cannot afford the lost income or travel time (Tofel-Grehl & Searle, 2019).

few Although relatively studies focus specifically on the PD needs of rural teachers, those that have typically find that there is a severe lack of ongoing PD for integrating technology (Alexander et al., 2014; Jones-Kavalier & Flannigan, 2008; Nasah et al., 2010). Due to the remoteness and isolation of rural schools, it is often challenging to recruit and retain teachers from outside the local community. Additionally, teachers in rural schools are most likely to be underqualified and most likely to spend their entire teaching careers at their first district, possibly teaching multiple generations of students from their community (Cowen et al., 2012). It is however the changing demographics of rural communities that further the disconnect of teacher populations. Because rural communities have been historically white, it is unsurprising to find that 90% of rural teachers are white while roughly 30% of students are not and the non-white student population is the number one growth statistic within rural schools (National Center for Educational Statistics, 2010). These shifting demographics mean changes in the needs of the evolving community. Further, the more highly ruralized the school, the more robust these trends become. As such, hiring and firing strategies cannot be used effectively to sustain improvement of classroom instruction due to the small pool of prospective applicants (Barrett et al., 2015). Thus, in-service PD is a singular and essential tool for improving educational opportunities for low-income rural communities. This confluence of considerations demands focus on supportive and effective training for both rural and highly ruralized teachers.

Overview of the E-STITCH Project

The Elementary STEM Teaching Integrating Technology and Computing Holistically (E-STITCH) is a curriculum development project designed to facilitate meaningful scientific inquiry related to physical science with technology, including both

hardware and software applications development, in grades 3-6. Project E-STITCH fully leverages the multi-subject nature of the elementary classroom to link STEM concepts with social studies and literacy content, providing a broader foundation of scientific engagement for students across a range of interests. Project E-STITCH draws upon the recent enthusiasm for the maker movement in education (Peppler & Bender, 2013), in which students engage directly with STEM content and skills through the design, prototyping, and creation of objects that are relevant to their interests and needs (Vossoughi & Bevan, 2014). Projects utilize paper circuits and electronic textiles (E-textiles) to design and build solutions to personally relevant problems. In contrast to conventional wires and breadboards, crafting circuit artifacts are created using novel materials such as copper tape, microprocessors, conductive fibers or conductive Velcro, sensors for light, sound, and pressure, and actuators such as LEDs and speakers. By crafting circuits using these materials to produce personally meaningful objects (e.g., t-shirts, backpacks), students engage in designing solutions that are intellectually rigorous as well as culturally and personally meaningful.

Project E-STITCH Curriculum

The E-STITCH project created a new set of computational circuit projects and curricular materials accessible to elementary students and their teachers to provide a series of integrated STEM technology lessons. In order to facilitate teacher use of the curriculum, we provided PD to improve content and pedagogical knowledge through the implementation of E-STITCH in the context of elementary STEM content standards with additional curriculum linkage to social studies. Continued PD is especially important in rural districts where teacher turnover is low and teachers' certification is often in a different content area than the subject they are teaching (Feldon et al., 2014). The E-STITCH curriculum leverages innovative technology experiences to provide a personally relevant context for learning foundational STEM concepts necessary for defining problems, developing and using models, analyzing and interpreting data, and designing solutions aligned with the Next Generation Science Standards

(NGSS) science and engineering practices and the elementary level Common Core Mathematics (CC-M) standards. The curriculum also addresses Utah Social Studies standards 5.1.1.a (Using Maps) and 5.4.3.a (Identifying Key Ideas, Events, and Leaders of the Civil War using Primary Sources). In addition to these specific content areas, we aligned lessons with literacy and mathematics standards. Table 1 articulates the integrated standards addressed by the E-STITCH curriculum.

Within the curriculum, students engage in three integrated STEM and Social studies projects. In the first project, students read texts showcasing stories of immigration, migration, and forced relocation. These stories are paired with science content learning around circuits and computer science, allowing students to design, construct, and code computational circuit timelines that retell the stories of immigration, migration, and forced relocation.

 Table 1

 Standards Alignment for the E-STITCH Project Curriculum

English/	SL 4.4 Report on a topic or text, tell a story, or recount an experience in an
Language Arts	organized manner, using appropriate facts and relevant, descriptive details to
Common Core	support main ideas or themes.
State	SL 4.5/5.5 Add/Include audio recordings and visual displays to presentations when
Standards	appropriate to enhance the development of main ideas.
Mathematics	MP.1 Make sense of problems and persevere when solving them.
Common Core	MP.2 Reason abstractly and quantitatively.
Practices	MP.3 Construct viable arguments and critique the reasoning of others.
Next	4-PS3-4 Apply scientific ideas to design, test, and refine a device that converts
Generation	energy from one form to another.
Science	NGSS-SEP Planning and carrying out investigations.
Standards	NGSS-CC-5 Energy and Matter: Tracking energy flow into, out of, and within helps
	one understand their system's behavior.
Utah Science	Sed-S-4.2.3 Plan and carry out an investigation to gather evidence from
Standards	observations that energy can be transferred from place to place by sound, light,
	heat, and electrical currents.
	SedS-4.2.4 Design a device to convert energy from one form to another.
	SedS-5.2.2 Ask questions to plan and carry out investigations to identify substances
	based on patterns of their properties.
National	NCSSI Describe ways in which language, stories, folktales, music, and artistic
Council of	creations serve as expressions of culture and influence behavior of people living in a
Social Studies	culture.
Standards	NCSSIII Construct and use mental maps of locales, regions, and the world that
	demonstrate understanding.
	NCSSIV Identify and describe ways family groups and community influence
	individual's daily life and personal choices.
Utah Social	3.2 Students will understand cultural factors that shape a community.
Studies	5.1 Students will understand how the exploration and colonization of North America
Standards	transformed human history.
Computer	1B-AP-09 Create programs that use variables to store and modify data.
Science	1B-AP-10 Create programs that include sequence, loops, and conditionals.
Standards	2-AP-11 Create clearly named variables that represent different data types and
	perform operations on their values.

For example, in Figure 1, we see a student programming a computational circuit they designed to share key moments in the book *A Place Where the Sunflowers Grow* by Amy Lee Tai, a story of the forced imprisonment of Japanese Americans during World War II.

In the second project, Freedom Quilt Squares, students engage in learning about and

recreating abolitionist quilts from the Civil War to examine the role of women, and particularly enslaved women, in subverting slavery. Abolitionist quilts contained secret messages and clues for enslaved people making their way north on the Underground Railroad. Using sewable circuitry and crafting tools, students sew quilts such as the one seen in Figure 2.

Figure 1
Student Computational Circuit Integrating Literacy and Social Studies

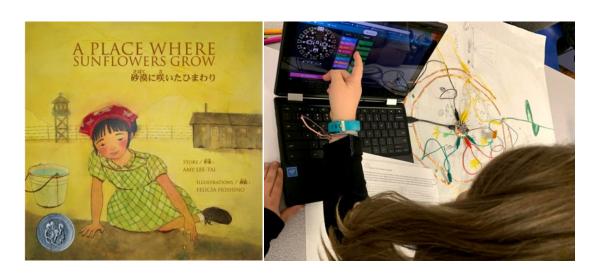


Figure 2
Student Freedom Quilt Squares



Figure 3

Meaningful Moment Squares





In the final project of the curriculum, students are invited to share moments from their own personal history in the Meaningful Moments Project. Students are encouraged to reflect on their learning about human movement and, if they feel safe to do so, share a moment from their own family story of immigration, migration, or forced relocation. However, students are welcomed to share any moment in their lives or histories that they feel are meaningful and personal to them. Figure 3 shares some examples of students' Meaningful Moments Projects. Throughout each of these three projects STEM, and specifically science and computing, are used as tools in service to equitable teaching and rich social studies engagement. Doing this type of work within rural contexts takes specific strategies and awareness to meet the needs of teachers and students.

Research Questions

With the static nature of rural teacher employment and the lack of professional learning opportunities afforded rural teachers, a critical need arises for developing new strategies for supporting rural education, especially as rural demographics continue to shift. Integrating curricula within projects allows teachers more time and supports to begin to engage novel content while still engaging with the "known" so as to support their learning and manages cognitive load. Furthermore, given the need to incorporate more complete and inclusive histories within classrooms, providing rural teachers with a locally meaningful integrated STEM and social studies project functioned as a way to solve some of challenges faced by rural teacher



educators. With this opportunity to engage rural educators in improved professional learning, we posited the following research questions:

- 1) How can we design curriculum and professional learning for rural communities that allows them to integrate science and technology while also engaging narratives authentic to their rural spaces and students?
- 2) How do rural teachers experience teaching integrated learning on content specific to their students and community's history?

Theoretical Framework

Our approach to exploring the teaching of this integrated curriculum within rural and semi-rural classrooms was informed by critical whiteness studies (CWS). As such, we recognize that racism is a historic, endemic, and permanent feature of society (Gildersleeve et al., 2011; Ladson-Billings & Tate, 1995; Matias et al., 2014). Driving the persistence of racism is whiteness, an ever-shifting, hierarchical, dehumanizing ideology and power construct (Bonilla-Silva, 2010; Leonardo, 2009; Roediger, 1991). Whiteness informs every aspect of the lifeworld, from the personal, the educational, and the political.

As white people are the possessors and benefactors of whiteness, they are afforded racialized power and privileges in effort to further enshrine white supremacy within their lives. While white people and whiteness are not synonymous, white people are inextricably linked to this harmful ideology. Harris (1993) noted that whiteness operates as property for white people insofar that

the possession of whiteness grants them access to freedoms, flexibilities, and opportunities not available to people of color. As a result, white people are invested in whiteness because the retention of its supremacy affords them the ability to maintain the privilege and position of authority (Lipsitz, 1996). Importantly, because of the pervasiveness of whiteness, white people are often unaware of the depth to which whiteness influences their lives. According to King (1993), this dysconsciousness refers "not to the absence of consciousness, but an impaired consciousness or distorted way of thinking" about race/ism and whiteness (p. 135). Therefore, people embodying dysconscious racism are likely to accept, without hesitation, the lies, myths, and falsehoods used to protect whiteness.

Over time, these falsehoods become internalized as white common sense. Based on the Gramscian notion of common sense, white common sense insists that white ways of knowing and being are to be seen as normal or expected within white society (Leonardo, 2009). Conversely, information, perspectives, or suggestions put forth from beyond whiteness are situated as radical, impossible, or inappropriate. When white common sense is challenged, it can cause white people to evoke white emotionalities or emotional responses to encountering unplanned or undesired racial knowledge. Disgust, pity, defensiveness, guilt, and anger are emotions most commonly associated with white cognitive dissonance (Leonardo & Zembylas, 2013; Matias & Zembylas, 2016). Matias & Zembylas (2016) argued that within education, white emotionalities are also presented through performative evocations of love or sympathy (i.e., "I love all my students no matter what"; "I feel bad for what my students have to deal with at home"). In reality, these emotional responses function as a way for white people to assert their racist beliefs about a person of color through race-evasive signifiers deemed "appropriate" for teachers.

As Cabrera (2018) observed, whiteness is quite agile, not fragile, insofar that it mutates, evolves, and adjusts in response to attempted dismantling. Similarly, white people will do nearly anything to avoid having to account for their relationship to/with whiteness and white supremacy. Leonardo (2002)

articulated three ways that white people tend to embody whiteness. White people are often unwilling to articulate the ways that race/ism influences their experiences or how race/ism shapes complex social issues. Rather than name race/ism or whiteness, another less controversial identity construct will be identified as relevant (i.e., "This isn't about race; it's about class"). Second, white people will insist that racial identity has nothing to do with their experiences or the experiences of others. Rooted in race-evasiveness, white embodiment insists that because race does not matter to white people, it should not matter to anyone. Third, white people will seek to minimize the historical and contemporary presence of racism and white supremacy. This occurs in many ways, but notably through disassociating white people from racialized violence, whitewashing historical realities, and dehumanizing people of color while bowdlerizing white icons.

Within this contextual understanding of how simultaneously subtle and pervasive the dominance of whiteness is within social constructs, we explore the ways that an integrated STEM and social studies curriculum can facilitate rural teacher reflection and professional development in their teaching and relationships with their students.

Methods

To answer these research questions, we utilized design-based research (DBR) methods. The aim of DBR is to study learning and teaching while also generating theories and solutions. This framework allows researchers to observe, as well as intervene, throughout the study process. It involves engineering learning environments, systematically studying what takes place, and making adjustments (Cobb et al., 2003; Collins et al., 2004; Kelly, 2003). The objective of DBR is to develop a better understanding of the learning ecology, including interactions among teachers, students, content, and curriculum and how these relations affect teaching and learning (Gravemeijer & Cobb, 2006). DBR's iterative design approach begins with development of the research problem before designing artifacts and/or curriculum to test a solution for the established problem. The curricula design is tested and then revised

reimplemented (see Figure 4). Results from DBR studies produce solutions as well as newly developed problems to examine in subsequent studies. This study is at the fourth stage where effects from revised curricula are being examined.

Context

Rural populations represent an important sector for increasing STEM engagement. Leaks in the STEM education pipeline, combined with growing demand for a STEM-prepared workforce, reinforces the need to attend to STEM education in rural communities where qualified and skilled STEM workers are in especially short supply and limit the development of industry (Butrymowicz, 2012; Carnevale et al., 2011; Mader, 2014; McFarland, 2016). As such, it is crucial for educators and researchers to engage more K-12 students from all

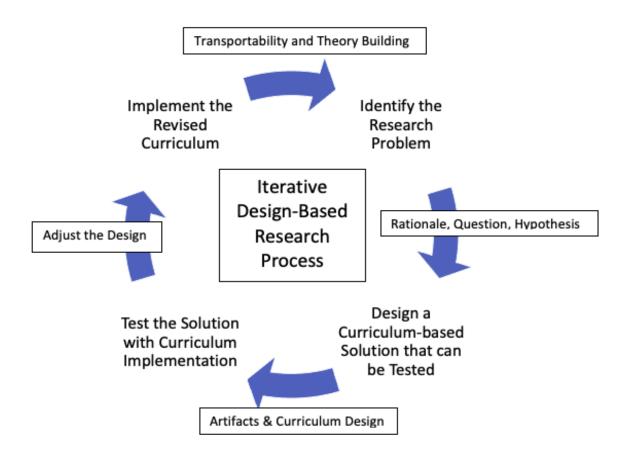
demographic groups in STEM learning and help them to sustain their interests in STEM-related fields.

Definitions of rural communities vary. We engage the definitions of highly rural and rural spaces in the way outlined by the Veteran's Administration

(https://www.ruralhealth.va.gov/aboutus/ruralvets.a sp#top). These definitions articulate highly rural spaces as a "sparsely populated areas [with] less than 10 percent of the working population commuting to any community larger than an urbanized cluster, which is typically a town of no more than 2,500 people." Conversely, they define an urban area as one where 30% or more of the population live in a densely populated area as defined by the Census Bureau. However, between

Figure 4

The Iterative Design-Based Research Process



Note. We adapted this Iterative Design-Based Research Process from Middleton et al. (2008).

these two spaces, the Veteran's administration also recognizes the "semi" rural, spaces that are neither urban nor highly ruralized. This intermediate definition and nuanced understanding about the variance within and across rural communities affords our work more clarity for understanding the communities with which we work in the state of Utah. Table 2 provides details regarding the rural communities in this study.

Description of the Professional Development

The PD workshop was developed using designbased research methods with a specific focus on the needs of rural teachers. Intended as an iterative and ongoing process, the PD provided teachers with a weeklong workshop and followed up with support team meetings and review as necessary.

The first phase of PD was the weeklong summer institute delivered in or proximal to each participating school district. This workshop sought to achieve two specific goals. First, we needed to ensure that teachers possess or develop appropriate content knowledge and inquiry-focused pedagogical knowledge. Because of the deficit of qualified science teachers in Utah (Feldon et al., 2014), ensuring proper content knowledge for teachers was vital to effective classroom instruction for students (Forbes & Davis, 2010; Windschitl, 2004). Using the 5E instructional model (Bybee et al., 2006), we modeled effective inquiry pedagogy during the institute and ensured participating teachers could explicate and map the target engagement-explorationprojects onto the explanation-elaboration-evaluation sequence to facilitate student participation. Second, we trained teachers on the E-textiles projects, including basic Arduino coding skills, such as working with variables, constructing conditional statements, looping, and using functions, so they were comfortable teaching the projects in their classrooms and linking them to the relevant science content standards for their state and grade level.

In teaching teachers who have never read code how to comprehend and teach the content, we found a faded scaffolding approach to be most effective so as to emphasize the importance of tracing, commenting, and explaining code as a means for developing understanding (Lopez et al., 2008; Murphy et al., 2012; Teague & Lister, 2014). We used a three-stage faded scaffold to introduce teachers to the reading and commenting of code. In the first stage, teachers received a piece of code for a basic blink program, which turns an LED on and off, with the entirety of the comments included. The PD leaders read and discuss the code, explicating what each line does and what the comments tell us about the code. Teachers then attempted to use the basic blink code with their completed projects and modified it to make the lights blink in different sequences or frequencies.

Table 2 Particinant Demographics

Participant Demographics	^a Abbzug County	Hayduke County	Utah overall
2017% rural population	16.0%	78.0%	23.8%
Percentage white	84.0%	45.8%	89.0%
Population density persons/mi (state rank)	96.7	1.9	34.0
Total # and % of rural preK-12 students	35,599 (31.6%)	5,015 (34%)	551,013 (15%)
% of students qualifying for free/reduced lunch	42%	70%	37%

Note: District and location names are pseudonyms.

aSarvis City is located within Abbzug though Sarvis City Schools are independent of Abbzug County Schools.

In the second stage, teachers received the entire code and comments for the set-up section of the code. They then commented the lines of code that did not have comments. Answers and comments were checked for correctness and accuracy.

In the third stage of the training, teachers received a section of code and were asked to comment every line. Teacher ability and comprehension were checked a final time before teachers began learning the next process—writing code for themselves.

After the workshop, the second phase of the PD involved site visits per school to meet with teachers and review E-textile projects prior to and following classroom instruction as needed. These meetings allowed teachers the opportunity to review the content and projects, gain assistance in troubleshooting and planning, and engage in structured reflection after deploying their units. The frequency and duration of site visits varied so that teachers who required higher levels of support received it. Due to the COVID-19 pandemic, the training moved from a face-to-face workshop to an online workshop.

Positionality Statement

The research team for this project consists of four white faculty members and one Latinx faculty member at a land grant institution in Utah. Four of the five faculty members have taught in schools: the fourth scholar is a learning scientist with extensive in experience teaching informal learning environments and expertise in working Indigenous populations. As scholars, we each hold different theoretical frames and areas of interest. Of importance, many of the scholars on this research team grew up in urban spaces, but all have spent between three to eight years living in a semi-rural community. Our university affiliation as faculty within the state's only land grant institution and teacher educators within that community carries with it heightened access to working with rural teachers across our state.

Participants

In the first year of the E-STITCH program, 19 teachers participated in the PD workshop; all the

teachers came from highly rural or semi-rural communities. In year two, 23 teachers completed the entire online PD. Of those, 12 of the teachers came from highly rural and semi-rural spaces. Another 11 teachers came from an urbanized school district interested in the curriculum and professional learning opportunity. Three of the teachers were male while the rest were female. Some of the teachers were foreign nationals who were teaching in Utah. One teacher was Navajo.

Data Collection

For analysis within this study, we collected professional development documents and assignments, teacher interviews pre- and post-professional development, and classroom observations. Observations occurred over the course of instruction that typically spanned 3 weeks for a total of 15 classes.

DBR Process

In the beginning stage of our DBR process, the articulation of the research challenge, we noted that semi-rural and highly rural experienced little to no professional learning opportunities for teaching science, social studies, or computer science. Within Utah, we could find no professional learning opportunities at all for elementary teachers related to social studies; similarly, the opportunities for science and computing were notably slim for rural educators. With this defined problem, and cognizant of the limited teaching time available to teachers for untested content areas in a state with extensive high stakes accountability testing, we engaged in PD design intended to integrate technology, social studies, and science curriculum pedagogy for elementary teachers in our second stage of DBR. We centered around three craft-based projects that would allow teachers to engage students in learning across the upper elementary social studies content for fourth and fifth grades incorporating STEM knowledge and skills.

Analysis

We report our findings in two parts. Firstly, to address our first research question that sought to understand how we design curriculum and PD for rural spaces, we share reflections and observations on the development and implementation of professional development in STEM. This analysis explores the reflections of the program providers as well as program development documents and teacher feedback.

Secondly, in order to understand how rural teachers experience integrated content learning within their communities, we coded common themes across teacher participants; transcripts of teacher interviews as well as assignments and reflections from professional learning were independently open-coded by two researchers using emergent thematic coding (Saldana, 2013). This coding allowed us to explore both the expected and unexpected experiences of teachers as they integrated STEM with social studies. researchers then resolved coding disagreements by consensus. After the initial coding, the team consolidated codes with a focus on challenges and experiences that could inform future iterations of rural teacher professional development. This focus provided an understanding of both the unique rural space the teachers worked within and the iterative DBR process. We report on two of those themes here: (1) racial differences in teacher experiences and (2) common experiences across teachers.

Findings

Designing Professional Learning for Rural Teachers

Initially, we found there to be a lack of professional learning opportunities for elementary rural teachers in both social studies and STEM areas. This determination arose from a search of the state's professional development offerings and discussions with school districts' stakeholders. The first iteration of the professional development and curriculum scaffolded teacher engagement with the technology and construction of novel maker projects. Initial analysis of the data from the professional development workshop and classroom deployments indicated that teachers were struggling to have hard conversations with their students regarding uncomfortable histories. As one teacher noted, they were concerned that discussions of slavery would make students sad or that they would be too emotional for young people. In reflecting on how difficult the teachers, and most notably white teachers, felt these conversations would be, we decided to use the opportunity presented by the COVID 19 pandemic, which forced our professional development work online, to provide teachers more scaffolded and, hopefully, more reflective opportunities to engage with the ways in which their own race impacted their experiences, their teaching, and their comfort in having these hard conversations.

Simultaneously, we found evidence of teachers struggling to integrate technology to teach coding for the first time. In support of that finding, we engaged a similar process of scaffolding and commenting code to support teachers in their development. We presented science and computing knowledge as tools for facilitating learning about complex histories so as to centralize the difficult conversations teachers articulated hesitancy in having. The design of the curriculum and professional learning centered perspectives often ignored in the state's social studies lessons. For example, much of Utah's fourth grade social studies curriculum focuses on the Mormon Migration. However, few, if any, teachers grapple with or acknowledge the forced removal of Indigenous peoples from their lands as part of that process.

Understanding that rural teachers across Utah would be working with Indigenous students and communities, we felt that centralizing these stories was an essential part of their professional development as educators. By centralizing these stories and histories of rural Utahns within a larger unit, our effort sought to provide a personally relevant and meaningful learning opportunity for teachers and students through which to build connections. Within this curriculum, science and technology served to support the telling and exploring of these stories of human movement by facilitating the construction of new ways to express these forms of human movement. This dual challenge to teachers allowed them to move back and forth between challenge areas. While it might seem counterintuitive to provide scaffolds to these two divergent challenges simultaneously, doing so allowed teachers to manage their feelings and angst about both, shifting focus and engagement between them as needed. By managing their cognitive load in both areas through scaffolding, we observed that teachers demonstrated greater flexibility and engagement.

In the final stage of our DBR process, we reflected on the outcomes, opportunities, and limitations of our first iteration. In this analysis, we recognized that rural teachers required greater PD and support to engage students in difficult conversations around uncomfortable aspects of history as well as increased scaffolding for technology use. Teacher reflections indicated that their own identities played some role in their teaching of these stories, particularly in rural spaces wherein these histories were deeply personal and important. Table 3 outlines the DBR process and prior findings that led to the recent changes and accommodations for rural teachers.

Our second iteration of the PD was online as a result of the COVID-19 pandemic. While this change was not anticipated, we leveraged the opportunity to engage teachers in private reflection about the ways that their personal identities impact their teaching practices. We increased scaffolds, materials, and opportunities for teachers to think about and engage with their own personal identities with regard to their professional actions. Because of a lack of prior knowledge and experience teaching both the full localized histories and technologies, we recognized the heightened need for rural teacher professional learning to be both contextualized and highly scaffolded to prevent cognitive overload.

Teachers' Experiences

Across the multiple deployments of the program, themes emerged related to teacher experiences of the curriculum and PD opportunities. Teachers' own racial identities as well as those of their students shaped their experiences of the professional learning. However, while some experiences were unique to individuals, others were more common to all regardless of ethnicity or geographic location.

Across STEM education, subject matter is typically framed as divorced from issues of identity and culture (Heybach & Pickup, 2017; Vrasti & Dayal, 2016). However, this narrative is historically inaccurate (Faulkner, 2000, 2009; Nasir & Vakil, 2017) and promotes a narrative that STEM belongs

to those with white and masculine identities who have historically populated it (Carlone & Johnson, 2007). This narrative leads to identity dissociation with STEM and constrains students' views of who can legitimately engage in STEM (Archer et al., 2010; Calabrese Barton & Tan, 2019). Accordingly, it is essential that students have opportunities to see their own identities as not only compatible, but integral, to STEM engagement. The E-STITCH curriculum intentionally positions students' identities in this way by linking their cultural, familial, and personal narratives of immigration, migration, and forced relocation with deeply integrated STEM learning. Specifically, the E-STITCH curriculum utilized Bishop's (1990) attention to the use of curriculum resources that serve as windows and mirrors. Through this frame, the E-STITCH curriculum engaged students in materials focused on immigration, migration, and forced relocation that reflected the experiences of students who have experienced them (mirrors) while also offering students lacking personal connection to these issues an opportunity to gain insight on the lived experiences of others (windows). Thus, teachers' abilities to both support and center the cultural and personal identities of their students within classroom discourse is vital to successful teaching, particularly for curriculum that calls for personally meaningful learning as a foundation for sustained engagement in STEM opportunities and pathways.

Racialized Experiences of Curriculum

Teachers who participated in E-STITCH PD and then implemented the curriculum in their classrooms had differing experiences depending on their own racial and ethnic backgrounds. Most white rural and semi-rural teachers who participated had not typically spent a lot of time thinking about their own identities, especially how their racial identities shaped their worldviews and how they interacted with their students who were non-white. This may be due to white population making up an even larger percentage of the rural American demographic (78%) compared to the rest of the country (64%; National Center for Educational Statistics, 2010).

Table 3
Summary of Design-Based Research Reflection Process

Initial Problem	Iteration 1 Solution	Findings from Iteration 1	Iteration 2 Changes
Rural teachers lack PD in STEM and Social Studies.	Develop integrated STEM and Social Studies PD and curriculum.	Teachers struggle with hard conversations with students and need more training.	Online PD scaffolds increased reflection on identity and hard conversations.
Rural teachers struggle to integrate technology.	Integrate computing into STEM and Social Studies projects meaningfully.	Teachers need more scaffolding for computing.	Scaffold project structure to support teacher integration and adoption.

Note. PD = Professional Development; STEM = Science, Technology, Engineering, and Mathematics

Many teacher participants were uncomfortable with merely being asked to reflect on their own identities. As one white teacher responded when asked to reflect on the identities that were most salient to her as a teacher, "I don't understand the question" (Interview, August 2, 2019). Another teacher, when asked how teaching the E-STITCH curriculum caused her to reflect on her own racial and ethnic identities, responded, "Um . . . I didn't just because, I don't know, it's not super important to me" (Interview, February 5, 2021). However, she went on to stress the value of E-STITCH for her students, "especially those who came from rougher backgrounds" because it allowed them to connect with their parents.

In both responses, we see evidence of the troubling assumption that white people do not have racial and ethnic identities and that these identities do not shape their interactions with students or their interactions with science curriculum. As Matias & Zembylas note, these evocations of affection are juxtaposed with an othering and distancing from their students' racial identities. This is made more explicit by the second teacher who implied that her "students from rougher backgrounds,"—a euphemism for her students of color—can benefit from reflecting on their identities.

In contrast, teachers of color, the majority of whom were international teachers living in the

United States temporarily to teach in dual-language immersion programs, saw themselves in the experiences of immigration, migration, and forced relocation represented at the heart of the project E-STITCH curriculum. As one teacher reflected, "When I was telling them (the students) about migration and immigration, I was telling that, 'You know, you know a person that comes from another place. Me." For other dual-language teachers, the sentiment of having lived the experiences talked about in the E-STITCH curriculum was less pleasant. One Chinese teacher, for instance, described how rural white Americans treated her when the COVID-19 pandemic hit:

So, like, I was attacked because I was, I was some of the first ones who wear a face mask once it started. And like . . . it's like, we have poor air. It's not speaking ill of my country. Because we have more, much more pollution than here because of the large population [of] factories. So we, we, are used to wearing a face mask, when it was dry or when the air is not good. It's not because we are sick. So I even have some [masks] before, uh, at first at the face masks were, were hard to buy, but I happen to have some, because it's just my habit to wear those when I have nose allergy or in the air, it's not good. And they think like, I'm the sick and I, that caused a big problem because I'm Chinese" (Interview, September 21, 2020).

Unfortunately, for this teacher, it was the anti-Asian sentiment experienced by herself and other Chinese teachers that connected her to American history, perhaps especially the experience of Japanese internment during World War II depicted in the picture book, A Place Where Sunflowers Grow by Amy LeE-Tai and Felicia Hoshino. A Place Where Sunflowers Grow is included in the E-STITCH curriculum specifically because it shares the story of one family's internment in Utah during WWII. Those experiences also directly connect issues of identity and ethnicity to current STEM issues related to health and efforts taken to limit the spread of COVID-19. Through these quotes, we see how teachers from different racial and ethnic backgrounds thought about their own identities in relation to the E-STITCH curriculum.

Common Discomforts with the Curriculum

Regardless of racial or ethnic background. teachers were nervous about having hard conversations with their students about systemic and historic inequity in the United States. For white teachers, there were more frequent concerns about whether students would engage in conversations about difficult topics respectfully as well as a desire to avoid hard conversations. For instance, in reflecting on a "proud teacher" moment where her students engaged in respectful dialogue, Ms. Natuna sheds light on her fear that this was not how things would play out in the classroom. She recalled:

One of my [students] is Navajo, and we were talking about the French and Indian War, and she was kind of a little bit upset that the textbook said Indian. One of my other kids was kind of talking to her about how, well, this is how they talked back in the time period and it's okay that we talk about or used the words that they – I mean within reason obviously – but he said we use these words because they're time appropriate and we need to understand where they're coming from versus where we come from, it just kind of helps get a better historical perspective, which she thought was kind of cool and I was super proud as a teacher. I was like, "Oh! Amazing," but I think she learned we weren't trying to be offensive with it, it was just

the text and just kind of helping her know that we respect and understand, maybe not fully understand, her culture, her perspective, but just we value her as part of our community, and we want to make sure she feels comfortable.

This anecdote of "proud teaching" requires closer examination. We see Ms. Natuna surprised at the dialogue between a Navajo student and a white student. She classifies this conversation as respectful and that "we weren't trying to be offensive with" the use of the word Indian. In this exchange, the Navajo student's emotions are set aside in place of attention to the presumed historical accuracy of the terms being used. The white student is positioned as an expert and the Navaio student is expected to not feel upset. In this way, Ms. Natuna and the white student are positioned as being unilaterally able to determine if something is offensive, racist, or inappropriate. While Ms. Natuna and the white student believe they are "helping her" understand the truth about historical representations, in reality they are silencing the Navajo student, indicating that her feelings are invalid or that her understanding of the past is inaccurate. The only people remaining comfortable through this exchange are the white teacher and student.

White teachers also struggled with how to talk about something so explicitly value-laden in their classrooms, even while recognizing that it was unavoidable. As Ms. Angling reflected:

Oh, like the lessons on how to talk about hard conversations [were] I think really important because we're gonna have some really hard conversations going back to school. Yeah, for sure. It's with everything that's going on in our world. And it's great. In fifth grade, we talk a lot about slavery and things like that. So, it was just a nice refresher to talk about, like to have that in this discussion this year. Mm hmm. Um, yeah, I do think as teachers, we have a very, we have to walk a very fine line, because we need to give students the facts. And we give them an outlet to talk. But we also cannot put our impressions on students.

Ms. Angling's use of the term "the facts" makes it clear that she does not want to engage in a conversation about values or (in)equity with her students. Many white teachers felt similarly that it was not their job to opine on whether something like slavery was right or wrong. In reality, though, their framing of just "the facts" implies that the existing social studies curriculum is value-free. As with science, we realize that social studies curricula are value-laden and often results in educative-psyche violence for students with marginalized identities (King & Woodson, 2017). Moreover, Chandler and Branscombe (2015) suggest that white social studies propagate white perceptions of the past, is filled with white heroification, and minimizes the experiences and perspectives of people of color. Therefore, claims of teaching just "the facts" often refer to the white facts.

However, there were some exceptions wherein teachers recognized the importance of teaching social studies from a culturally responsive perspective as the E-STITCH curriculum suggests. Ms. Fasua taught at a rural school with many students who had recently immigrated to the United States, and she commented:

So for, for my students, I'm going to be bringing in the literature and talking a lot about, um, because they, they are in a situation where many of their families are immigrants or have migrated currently, not even a long time ago, but they are currently possibly in flux. And so I think, um, I think my goal is to get them, to get the students, to see that, you know, that's kind of how America was built. Um, and that, that all of the cultures that have come have helped make this such a beautiful, wonderful place, right. Their cultures and what they're bringing are important to our history and our future (Post-PD Interview).

In this reflection, Ms. Fasua sees her students' experiences reflected in the E-STITCH curriculum, and she articulates how she hopes to use the lessons of project E-STITCH to make her students feel welcome in the United States even when their lives are in flux. Ms. Fasua's framing of the United States' past is such that students see the central role that immigrants have played, rather than

situating immigration stories as external to the traditional narratives that fill social studies curricula (e.g., Journell, 2009). Similarly, after having taught E-STITCH, Mr. Smith reflected on the experiences of a Somali student in his class. He said:

I have a child in my class who's from Somalia, and it was like this content is specifically meant for accepting people like her. We're talking about how everyone came from all these different places and how we have different traditions and different ways of dressing and different things that we eat. I thought that was really powerful for her. I wish she would have been a little bit more outspoken about it. Because she would talk to me away from the class and say this is the exact same thing that I'm feeling. But she would never share it in front of the class. And I was hoping she would" (Interview, November 12, 2019).

This reflection from Mr. Smith offers a glimpse into the ways that teachers can simultaneously make progress toward more equitable teaching and also provide evidence that more support is needed. While we see hints of Mr. Smith's own problematic stance towards multiculturalism in his emphasis on traditions, clothing, and food, it is also worth noting that he recognized the value of the curriculum for his students. Mr. Smith is able to identify the value of integrating texts and resources that centralize experiences of students too often ignored in social studies curriculum. That said, the disappointment he shared when his Somali student would not vocalize her appreciation for the cultural content featured in the E-STITCH curriculum indicates that Mr. Smith placed the responsibility of vocalizing meaning upon the shoulders of the immigrant student in his class.

At the same time, though, Mr. Smith could not articulate the value of learning about the topics covered in E-STITCH for his white students. Thus, he indicated a lack of awareness that diverse texts serve the role as mirrors and as windows, both of which are necessary in elementary classrooms (Bishop, 1990). Students whose identities are centralized in the traditional curriculum (white, male, United States born) often have no issue seeing versions of themselves reflected in the curriculum.

Teaching about immigration, with sources from people directly experiencing immigration, can assist white U.S.-born students in developing a humanizing understanding of the nuances, challenges, and opportunities associated with immigration. Specifically, in rural contexts, Mr. Smith could have utilized the E-STITCH curriculum to deliberately transform students' understanding of these complex issues, illuminating the realities of immigration, migration, and forced relocation for rural students and offering them a window into how others have experienced these events. Instead, however, Mr. Smith focused discussion on the lighthearted cultural representations referenced above in hopes that appreciation of others' traditions would suffice.

Dual-language immersion teachers had other concerns about having hard conversations, specifically that they had recently arrived in the United States themselves and did not fully understand the history or the social systems they were being asked to teach about. One Portuguese immersion teacher reflected on how nervous she was about teaching the social studies portion of E-STITCH before she started teaching:

Also, the social studies part 'cause I don't do that here, and well, I'm not from here. I'm from Brazil, so I'm not so sure how kids will receive the things I was telling them. 'Cause I know how it works in Brazil; how everybody thinks and how the politics work. How can I say that? The social part. The culture, yeah. I didn't know how they would receive what I was teaching, but it was really good. They were capable of thinking critically about that. They were able to understand everything, and to participate, and understand the topics that we were talking about (Post-Instruction Interview).

While this teacher was ultimately surprised by her students' abilities to engage in hard conversations about immigration, migration and forced relocation, she continued to be uncertain about how her students would react to things she might say about, for instance, politics in the United States as someone who had grown up in another country and had only been in the United States for several years. Similarly, Ms. Winn described how

the topics of immigration, migration, and forced relocation were new to her. She articulated:

This is completely new for me. Like I am a Chinese immersion teacher and this, I just finished my second-year teaching here. So, for what I learned and experienced . . . here, this curriculum is new...I think teachers don't usually talk about that big topic with students, especially at an elementary level, like for social studies. I'm interested in the American history, like especially Utah history. I learned that when they, uh, when teachers teach social studies, they only mention like how pioneers ... work hard to make a life here in Utah. But, they don't talk about how they deal with the conflicts or maybe not conflicts with the Native Americans. So, I asked a few people and they tried to find a nice way to say that. And I found some teachers are not willing to talk about that....So, this is impressive. Um, I never thought I would talk with elementary kids, uh, like about this big topic, especially about the, uh, social equality (Post-Instruction Interview).

Although the social studies topics featured in the E-STITCH curriculum were new to Ms. Winn as they were grounded in U.S.-centric perspectives, she acknowledged the ways that traditional social studies teaching falls short of engaging students in rich discussions of complex issues. Particularly in the context of Utah, stories of immigration, migration, and forced relocation are viewed through the pioneer perspective, shielding greatly the impact that historical and contemporary figures have on others, on the land, and on communities. As a Chinese national teaching in a dual-language immersion program in a rural part of Utah, Ms. Winn was able to see the omissions in social studies curriculum, such as only teaching about "how pioneers . . . work hard." For her, the E-STITCH curriculum presented an opportunity to engage not only her students but also her U.S.-born white colleagues in talking about systemic inequities. She became very attuned to the silences and omissions of U.S.-born white teachers.

Discussion

Rural teachers are a unique population of teachers, specifically because they tend to stay in their communities, work more years within their localized schools than their urban counterparts, and receive fewer opportunities for professional learning. Further, these communities often struggle most to sustain STEM-based workforce pathways (Rothwell, 2013) and are currently seeing the greatest diversification of their populations (Lichter, 2012: Lichter et al., 2018), Accordingly, many rural communities are struggling with ethnodemographic and cultural changes that local schools are illprepared to address (Lichter et al., 2007). It is essential for rural communities to provide professional development for their teachers. In addition, teachers need the pedagogical resources to engage with the complex U.S. histories centralized around the communities they serve.

Whiteness had a direct impact on how teachers engaged with E-STITCH. Despite efforts to disrupt whiteness by centering literature written by/about people of color and providing professional development on racially literate teaching, white teacher-participants still struggled to disrupt whiteness within their daily practice with students. For white teacher-participants, whiteness manifested through a protection of white emotionalities (Matias & Zembylas, 2016) and a dysconsciousness when considering the ways that students of color experience the world. Additionally, white teacher-participants struggled to account for the experiences of their students of color who had cultural or historical connections with the events that were addressed in E-STITCH. This suggests that participants were unable to transfer their newly developed racial pedagogical content knowledge into racially just racial pedagogical decisionmaking (Hawkman, 2019).

As Leonardo (2009) observed, whiteness dehumanizes people of color, reducing their experiences to be secondary to those of white students. At times, however, E-STITCH offered teacher-participants of color an opportunity to acknowledge their own experiences with immigration, migration, and forced relocation, thus serving to humanize these experiences in the eyes

of students, many of whom had few encounters with such actions. In addition, E-STITCH reflected the stories of students of color who had experienced immigration, migration, or forced relocation in their young lives, thereby pushing back on ways in which whiteness ignores the experiences of people of color within traditional curriculum.

Within our study, STEM serves as a tool for facilitating an opportunity for deeper conversations and reflection within rural classroom communities. Early exposure to positive STEM experiences, a likely predictor of future STEM interest, engages learners in integrated STEM learning that is personally relevant and contextualized may provide an essential link to improving STEM learning outcomes for rural communities. The E-STITCH curriculum and its associated PD offers students and teachers the opportunity to develop projects that localize community histories and broach personal experiences while utilizing STEM knowledge and practices in the telling of those histories. While STEM learning is important for its own sake, opportunities to integrate STEM across contexts are important because they afford students more opportunities to see classroom learning as relevant to themselves and their lives. However, to do this, students need teachers with the ability to engage STEM dynamically across the curriculum.

Conclusions

There exists the illusion that STEM knowledge and, by extension, STEM learning is devoid of politics, opinions, and contexts. By framing STEM this way, educators and STEM participants erase the stories. considerations, needs. and contributions of entire swaths of the population. In doing so, we have created two specific challenges for STEM educators. Firstly, we reinforce the notion that there is one way of engaging STEM. Secondly, we support the perception of some people as STEM people and some people as not. Typically, this means that STEM remains the bastion of white men. Creating alternative narratives around who can do STEM and what STEM looks like requires early interventions that are equitable and accessible for all students.

To create equitable opportunities for students, professional learning must be equally accessible.

With rural communities retaining their teachers in service longer than their urban counterparts, professional development and learning provide significantly valuable opportunities for continued improvement of STEM learning and interest among rural students. The E-STITCH program engaged rural teachers in professional learning and training to support their acquisition of new skills, both in terms of STEM teaching and in terms of engaging their students in learning and thinking critically about the histories and issues in their world.

By engaging teachers in the same reflective processes their students were expected to engage in, teachers became aware of their own cultural worldviews. Their awareness of their perspectives was constrained at times as they were grappling with cultural and epistemic shifts around STEM teaching and learning. At first, participating teachers viewed STEM as a discipline devoid of cultural values before considering cultural worldviews of STEM. When teachers succeeded in bridging social studies and STEM, they often did so because their worldviews were often called into question. By examining the ways in which STEM can foster engagement with the histories and experiences that rural communities face in their daily lives, STEM becomes an important tool for empowering both teachers and communities.

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"I Feel the Responsibility": The Nexus of Secondary Teacher Knowledge, Rural Education, and Emergent Bilinguals

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Rural schools in the United States are facing an increase in the number of Emergent Bilinguals (EBs). Teachers in rural communities must facilitate learning for EB students whose linguistic and cultural backgrounds differ from the mainstream. However, rural teachers are less prepared to address EBs' educational needs, and little is known about the actual teacher knowledge (TK) required to provide effective EB instruction in secondary rural settings. Grounded in teacher knowledge and place-based education frameworks, this qualitative study examined what teachers say they know related to the teaching and learning of EBs in a rural secondary school community. The study addressed two main questions: (1) What personal and professional knowledges do secondary teachers reveal about teaching EBs in rural settings? and (2) What place-based knowledges do secondary teachers reveal about their work with EBs? Primary data from four secondary teachers teaching EBs in a rural school in the southeastern United States consisted of video-recorded interviews and photo elicitation that illuminated teachers' told narratives of their personal, professional, and place-based experiences via stories. Thematic data analysis followed an iterative approach. Findings from this study demonstrated that the teachers' personal and place-based knowledges emerged as the most prominent influences in their work. Teachers' bilingualism, hispanidad, and faith were leveraged to build relationships with their rural secondary EBs. Thus, relationship-building was central to teachers' knowledge-base of working with EBs. A four-dimensional teacher knowledge model is proposed. Findings may inform teacher education programs and extend the research base on rural secondary EB education.

Keywords: rural education, teacher education, bilingual education, English learners, teacher knowledge, place-based education, emergent bilinguals, Latinx, Hispanic, secondary school settings, relationship-building

Rural schools in the United States are facing an increase in the number of Emergent Bilinguals (EBs), the majority being from Hispanic backgrounds, who participate in mainstream inclusive classrooms where the primary medium of instruction is English. Like their non-rural counterparts, teachers in rural communities must facilitate learning for EB students whose linguistic and cultural backgrounds are varied. However, rural teachers are less prepared, and sometimes unwilling, to integrate EB differences and address their educational needs. Although some research on what teachers need to know to effectively teach language and content to EBs has been conducted, little is known about the actual teacher knowledge (TK) required to provide effective EB instruction in secondary rural settings.

Currently in the United States there are approximately five million identified EB students (National Center for Education Statistics [NCES], 2019). Recent data indicate that Florida has the third largest number of EBs in the United States or

approximately 300,000 identified EBs in grades K-12 (Florida Department of Education, 2017), with the majority representing Spanish speakers, the fastest growing demographic group in U.S. public schools (Fránguiz & Salinas, 2011; NCES, 2018; U.S. Department of Education, 2020). Presently, about 50% of all school districts in the United States are classified as rural (Cicchinelli & Beesley, 2017), and one third of all public schools are located in rural areas (Ayers, 2011). Nonetheless, most of the investigations on education in the United States are conducted in urban or suburban schools (Williams & Grooms, 2016). Data sources suggest that about 600,000 EBs attend rural schools (Hussar et al., 2020; NCES, 2018). Rural EB students and educators lack access to human, material, and digital resources, such as highly prepared teachers and programs that use EBs' first language in learning (Azano & Stewart, 2015; Burton & Johnson, 2010; Lewis & Gray, 2016). These challenges reflect the need to understand who rural teachers and students are-i.e., their personal and professional life experiences and knowledgesand how to align said knowledges with high-quality EB instruction and programs for EBs. Work by Delgado-Bernal (2001) and Flores Carmona (2018) have argued that teachers' and students' academic knowledges are important for teaching and learning; however, they do not stand alone as "the everyday knowledge and life experiences of students," teachers, and "their communities" matter for instruction (Flores Carmona, 2018, p. 46). Understanding who EB students and their teachers recognizes are how different cultures, epistemologies, and backgrounds shape EB education.

Over the last decade, research has illuminated the knowledge that teachers need to effectively teach language and content to EBs (often referred to as English learners or ELs). This knowledge puts an emphasis on the linguistic and cultural dimensions of schooling (e.g., Coady et al., 2011, 2016; de Jong et al., 2013; Gallagher & Haan, 2018; Turkan et al., 2014). For the most part, the research investigating TK for EB teaching and learning has been focused on what all teachers need to know and be able to do (Genesee et al., 2006; Goldenberg, 2013; Téllez & Waxman, 2006). Little

is known about teacher knowledge related to EB instruction and effective learning, especially in secondary school settings. Even when some states mandate the preparation of teachers, there is lack of substantial evidence that mainstream teachers actually engage in differentiated instructional practices for EBs (Coady et al., 2016; Coady et al., 2018; Coady et al., 2019; Ernst-Slavit & Poveda, 2011). The 1990 Florida Consent Decree outlined the preparation of all Florida teachers to work with EBs. This policy mandates English to Speakers of Other Languages (ESOL) training for all teachers of EBs, both pre- and in-service. At the elementary school level, teachers must have 300 hours of professional preparation to work with EBs through five curricular areas: applied linguistics; cross cultural communication; testing and evaluation; ESOL methods; and curriculum and instruction. Secondary content teachers, administrators, and guidance counselors must have 60 hours, the equivalent to one graduate level, three-credit hour course. However, there is little evidence that Florida state requirements result in teacher changed practices (Coady et al., 2019). Moreover, there is no evidence of the impact on student learning as the achievement gap between EBs and non-EBs remains stagnant (de Jong, 2021).

There is a documented cultural and linguistic disconnect between rural teachers and EB students. U.S. rural teachers follow the general trend; they are primarily White, middle-class, monolingual, English-speaking females with a bachelor's degree (Flores & Claeys, 2019; Hansen-Thomas et al., 2016; Lucas & Grinberg, 2008; Nieto & Bode, 2012; NCES, 2020). The mismatch between teachers' and EB students' experiences results in numerous problems such as teachers and students misunderstanding each other and students feeling unmotivated (Carothers et al., 2019; Flores & Claeys, 2019; Nieto & Bode, 2012). Scholars have recognized the need for EB teachers to get acquainted with students' cultural backgrounds to tailor effective EB instruction (Coady & Escamilla, 2005; Lucas & Grinberg, 2008; Moll et al., 1992). Lucas and Grinberg (2008) have argued that teachers' exposure to multilingualism, such as studying a language other than English (LOTE), would serve as the basis to develop "affirming views

of linguistic diversity" and "an awareness of the sociopolitical dimension of language use and language education," both central to support EBs in the classroom (pp. 612–613). Other bilingual education scholars have asserted that bilingual and Hispanic teachers possess multiple knowledges that inform their professional decisions which, in turn, positively affect the lives of EBs by improving their academic outcomes and experiences (Clewell et al., 2001; Delgado-Bernal, 2001; Okhremtchouk & González, 2014; Villegas & Irvine, 2010).

Research on secondary teachers of EBs needs greater attention because the demands of academic language are more complex in advanced grades (Bunch, 2010; Fang et al., 2006). Secondary EBs face a rigorous curriculum structure, including simultaneously developing academic language and English development in the content areas. Although research has demonstrated that EBs continue to be outperformed by non-EBs in state standardized assessments and that the achievement gap percentage increases in higher academic grades (Coady et al., 2018), the scholarship on what secondary teachers know, or need to know, to provide quality EB instruction has been largely absent (Faltis et al., 2010; Reeves, 2006, 2009). Furthermore, the personal and professional experiences of secondary teachers working with EBs have received little attention (Reeves, 2006) and secondary teacher preparation for EB instruction has been ignored (August & Shanahan, 2006). Thus, secondary teachers are likely to be unprepared to meeting the cultural and linguistic needs of EBs.

The U.S. educational system is faced with these challenges: (1) the rapid growth of EBs in the United States; (2) the shortage of well-prepared teachers;(3) the widely documented pattern of underperformance of EBs on state and national tests (Coady et al., 2018; Kieffer & Thompson, 2018); (4) the lack of empirical examinations of TK theoretical frameworks informing EB teaching and learning; (5) the limited scholarship on secondary TK and experiences working with EBs; and (6) the lack of understanding of how local, state, and national policies are shaping TK for secondary EBs. Educational research that illuminates the necessary

TK that will enhance secondary EBs' academic performance is, thus, needed.

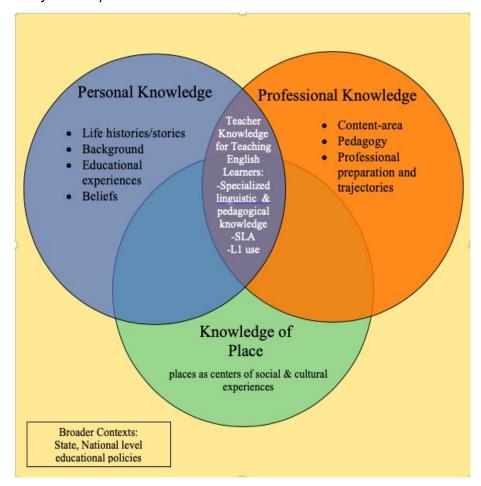
In addition, the existing body of literature regarding TK and its connection to the teaching of EBs in rural communities has been largely absent. Rural education scholars argue that teachers in rural communities must be familiar with both the strengths and challenges of rural places to develop a sense of place (Greenwood, 2013; Gruenewald, 2003; Howley & Howley, 2014; White & Reid, 2008). A teacher's attention must be directed "to social processes, to the ways in which people live, work, play, desire, and hopefully, cooperate" in particular places (John & Ford, 2017, p. 13) and the role that rurality plays in education. The interaction among teachers' personal and professional identities, informed by one's life biographies and experiences, "contribute to the construction of an identity that is linked to a particular place" and, "how a person views herself both informs and is informed by a sense of place" (Reagan et al., 2019, p. 87). Preparation and professional development (PD) programs are needed to encourage teachers to get to know a place by becoming community researchers and understanding where they are in a way that extends beyond geographic location.

Rural settings pose additional specific challenges for EB students and educators, e.g., (1) limited educational funding due to a low property tax base (Azano & Stewart, 2015; Hansen-Thomas, 2018; Johnson & Zoellner, 2016; Reynolds, 2017); (2) the lack of well-prepared teachers in ESOL methods (National Rural Education Association [NREA], 2021); (3) the lack of language-focused education, misconceptions and deficit views about culturally and linguistically diverse students (Bunch, 2014; Flores & Rosa, 2015; Lee et al., 2007); (4) the influence of local, state, and national level educational policies on teachers' work with EBs (Massey, 2020); and (5) a dearth of PD (Coady, 2020; Good et al., 2010; Manner & Rodriguez, 2012; Marlow & Cooper, 2008; Rodriguez & Manner, 2010). EB educators in rural school communities must accept educational responsibility for all EBs by developing a deep knowledge of place, i.e., an understanding of how community, geography, topography, diverse demography, way of life, and limited resources shape EBs' education.

Although scholars in the field of EB education have an emerging knowledge base on how to prepare teachers for linguistic diversity (Coady et al., 2016), little is known about the intersection of rurality and EB education as a subfield in education research (Coady, 2020; NREA, 2021).

The purpose of this qualitative study was to examine secondary TK related to the teaching and learning of EB students in a rural community. This study aimed to address shortcomings in the academic literature on EBs and rural education with the goal of improving education for rural EBs. It also sought to examine the knowledge base upon which secondary teachers draw to improve education for rural EBs. The study addressed two main questions: (1) What personal and professional knowledges do secondary teachers reveal about teaching EBs in rural settings? and (2) What place-based knowledges do secondary teachers reveal about their work with EBs?

Figure 1 Study's Conceptual Framework



Theoretical Framework

The theoretical framework for this study consists of two components: TK and place-based education (Gruenewald, 2003). I theorize that TK of secondary teachers in rural settings is composed of three dimensions: personal (e.g., bilingualism, cultural, lived experiences); professional (e.g., professional preparation, content-area, and professional development); and place-based knowledges (e.g., rurality and community social processes) shaping each other in teachers' work with secondary EBs in a rural setting. In addition, I hypothesize that place is more than a backdrop or description of the work that teachers do; rather, place defines and shapes how people come to know and participate in the world.

First, a constructivist approach to TK frames the idea that teachers, in their professional work, are thinkers and creators of knowledge and that knowledge is mediated by personal experiences (Clandinin & Connelly, 1987; Elbaz, 1983; Ernst-Slavit & Poveda, 2011; Mercado, 2002; Reeves, 2009). This constructivist perspective underscores the subjective and more personal nature of TK. Clandinin and Connelly's (1987) definition of TK or personal practical knowledge (PPK) highlights the influential role that teachers' moral and affective aspects play on their personal and educational experiences, which constantly interact classroom events and are closely connected to the personal and professional narratives of teachers' lives.

After exploring literature on the personalprofessional nexus in teaching (Golombek, 1998; Pedrana, 2009; Reeves, 2009), I posit that these areas are two essential components of the overall knowledge base of teachers that affect teachers' work with EB students. I argue that teachers do not cease to be personal when teaching, and their professional lives and experiences do not disappear when they leave school. Pedrana's (2009) study of Hispanic teachers of EBs underscored the direct influence that personal and educational experiences exert over who teachers are, what they teach, "and how they engage students in their learning" (p. 176).

The empirical research on the specialized TK for effective EB instruction focused mainly on what all teachers needed to know and do (Coady et al., 2016; Genesee et al., 2006; Goldenberg, 2013; Téllez & Waxman, 2006). Specific research on TK for effectively addressing secondary EBs was largely absent (Faltis et al., 2010; Reeves, 2006). Thus, I contend that the understanding of the relationship between TK and secondary EB instruction is still nascent.

Second, I investigated the role that place plays in shaping TK for EBs. As noted, the limited research on rural EB teacher education and practices illustrates the need for place-based education and clearer guidelines on the relationship between teacher education and EB learning. For instance, Good et al. (2010) found that cultural clashes and communication gaps impeded teachers' work with EBs in a rural community. Other rural EB scholars have demonstrated how knowledge of place directly influences teachers' work with rural EB students, heightening educators' advocacy stances and promoting their leadership and collaboration (Ankeny et al., 2019; Bustamante et al., 2010). Thus, I postulate that problematizing place is central for teachers to know and understand the specific "circumstances and specificity of rural education" (Green & Reid, 2014, p. 27) as places define and shape how people come to know and participate in the world. As Gruenewald (2003) remarked, "places themselves have something to say" (p. 624), and place-based TK holds promise for more effective instruction, advocacy, and equity for rural EB students and families. In this study, teachers' personal, professional, and place-based knowledges are used as a theoretical lens to understand how teachers know what they know about their work with EBs in this rural community. Figure 1 demonstrates the intersections of the study's conceptual components of the framework while Figure 2 shows the theoretical framework informing the study.

Figure 2
Theoretical Framework Informing the Study

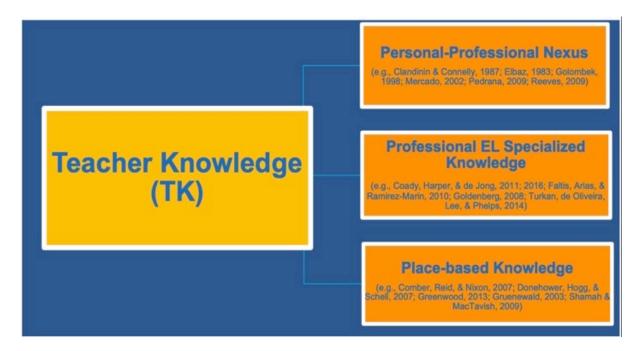
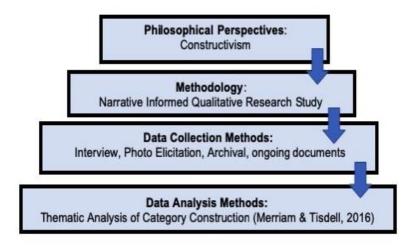


Figure 3
Research Design



Methodology

Understanding TK in a rural setting and what teachers say they know about their work with EBs entailed the co-construction of participants' place-based personal, professional, and knowledges. This qualitative yearlong research study with four secondary teachers of EBs took place in a rural agricultural school district and used a narrative-informed qualitative research approach to data collection and analysis (Merriam & Tisdell, 2016) to elicit narratives of personal, professional. and place-based experiences. Figure 3 describes the study's research design.

Research Context

Ivy County (pseudonym) had consolidated middle-secondary schools in three main towns: Hibiscus, Calla Lily, and Alamanda. The district had low numbers of EBs. At the time of the study, just under 200 EBs, or four percent of the students, across grades K-12 were identified as receiving ESOL services. The EB students were primarily Hispanic or Latinx from various Central American countries and Mexico, and about 94% were Spanish speakers. The families worked in peanut, hay bale, and equestrian industries and supported the economy through direct labor on the land (Marichal, 2020). The percentage of persons living at or below the poverty line in Ivy County was 20.8% (U.S. Census, 2017). At the time of the study, the EB students scored significantly below state averages on the standardized test and below state averages on the English Language Proficiency test, WIDA ACCESS 2.0. The teachers were identified based on prior participation in a place-based PD program, funded by the U.S. Department of Education (Office of English Language Acquisition, OELA).

The schools in which the study's participants worked followed the state-mandated requirements for the preparation of all teachers who worked with EBs (Florida Department of Education, 2017). The district's chosen model for EB instruction was a "mainstream inclusive classroom" model, also known as "Structured English Immersion" (Peregoy & Boyle, 2013) in which English was the medium of instruction. Following this model, teachers included EBs in all mainstream classroom activities and were required to differentiate their instruction in academic

content areas for EBs based on those students' various English language proficiency levels.

Participants

Employing purposeful sampling selection criteria (Patton, 2002), four secondary teachers in Ivy County who worked directly with EBs were recruited and selected. The selection criteria allowed me to select the teachers' school level, their personal and professional characteristics, and their experience with a rural setting and EBs. Although the goals of this study were aligned to the larger objectives of the PD program, the research questions and purpose for this study were developed independently of and were different from the overarching objectives of the PD program that involved teachers in a north Florida school district. The participants held an ESOL endorsement from the state of Florida or had earned professional points towards a state ESOL endorsement for secondary school level. Three participants (Adela, Jacqueline, and Marisol [pseudonyms]) were bilingual, two of them were Hispanic from Puerto Rico (Adela and Marisol) and one from the local community. All three were female secondary teachers. The fourth participant, Jack, was a monolingual English speaker, who had had some limited international travel experiences. At the time of the study, Jacqueline and Adela were Spanish teachers teaching 9-12 students while Jack was a ninth grade English/ Language Arts teacher. Like most educators in rural schools, Marisol performed multiple roles (Coady et al., 2019). While serving as an ESOL paraprofessional working with EBs during the day and assisting EB parents as requested, Marisol was also in charge of the Focus Lab classroom, teaching and supervising mainstream and EB students in grades 9-12 who were not meeting grade-level standards in regular classroom settings. Table 1 summarizes essential personal information of the participants.

Participants' information was gathered through interview data during Stage 1 and 2, specifically an exploration of participants' personal and professional knowledges, respectively, as well as their résumé and initial participant online survey. Participants were provided with electronic IRB-approved consent forms, and their confidentiality

was assured through the use of pseudonyms and de-identified data.

Data Collection

Primary data included four video-recorded interviews for each participant, and photo elicitation, which guided teachers' storytelling (Harper, 2002). The interviews were conducted during the summer months as requested by the participants. Temporal data collection techniques were used (past, present, future) to illuminate teachers' told narratives of their personal, professional, and place-based experiences via stories.

Secondary data consisted of archival documents such as online survey, teacher personal résumé, and field notes. These data sources were employed to focus "on process, understanding, and

meaning" and on obtaining "richly descriptive" data from the participants (Merriam & Tisdell, 2016, p. 15). Data collection and analysis lasted 25 weeks.

The interview process was divided in four stages using four interview protocols: (1) Stage 1: Personal Knowledge; (2) Stage 2: Professional Knowledge; (3) Stage 3: Knowledge of Place; and (4) Stage 4: Combined Questions Connecting All TK Dimensions. During the interviews, I invited participants to talk about the images they generated and to explain how the images embodied a personal, professional, or place-based experience. The participants' interpretation of these photos served as prompts for verbal data, thus, providing data for subsequent analysis.

Table 1Summary of Participants' Essential Personal Characteristics

	Participants				
	Jack	Jacqueline	Marisol	Adela	
Race/Nationality	White American	African American	White Hispanic	White Hispanic	
Languages	Monolingual	Bilingual	Bilingual L1 Native	Bilingual L1 Native	
Birthplace	Florida	Florida	NY	PR	
Location of Upbringing	TN, rural	Florida, urban	NY, urban	PR urban-rural	
Schooling	Master's degree in Secondary English Education working toward Ed.D.	Bachelor's degree	Bachelor's degree, working toward a MAE	Bachelor's degree, working toward a MAE	
Yrs. of experience teaching	3	35	16	12	
Yrs. of experience teaching in rural lvy County	2	29	5	6	

Table 2 Data Collected and Transcribed

	Interviews	Photo Elicitation	Documents Archival Online Survey, Personal Résumé, & Ongoing Documents
Jack	4 interviews Total time: 253 minutes (4.22 hrs.) 80 pp. transcribed data	10 pictures corresponding to the 3 major categories	Personal résumé Online survey 1 picture from ESOL Fair Data generated from email (1)
Jacqueline	4 interviews Total time: 287 minutes (4.80 hrs.) 102 pp. transcribed data	7 pictures corresponding to the 3 major categories	Personal résumé Online survey Data generated from email (2)
Marisol	4 interviews Total time: 240 minutes (4.00 hrs.) 85 pp. transcribed data	13 pictures corresponding to the 3 major categories	Personal résumé Online survey Data generated from email (2)
Adela	4 interviews Total time: 398 minutes (6.60 hrs.) 98 pp. transcribed data	7 pictures corresponding to the 3 major categories	Personal résumé Online survey 2 pictures from ESOL Fair Data generated from email (1)
Total	16 interviews 1178 minutes 20 hrs. 365 pp. transcribed data	37 participant-generated pictures	4 personal résumés 4 online surveys 3 researcher-generated pictures Data generated from email (6)

Microsoft Excel was used to store transcript data and a photo elicitation log. Initial open codes from across all the data sets (1066) were grouped into 20 axial codes, which were re-analyzed and compared using an iterative approach. A master list of codes was generated for each participant resulting in five major categories or findings addressing the two research questions. In this paper I discuss four findings related to the personal and place-based knowledges of the participants.

Positionality

I have played an active role in the completion of this yearlong narrative-informed qualitative study. As a White Hispanic secondary teacher of Spanish who was born and raised in Puerto Rico and educated in the United States, I recognize that my cultural and bilingual experiences may have influenced my work with rural EB teachers in this study. At the same time, my personal, educational, and professional experiences as a Puerto Rican in the United States have provided me with the necessary knowledges and impetus to conduct this study. First, my educational journey in the United States, often characterized by silence, racist and classist microaggressions (Solórzano, 1998, as cited in Delgado-Bernal, 2001, p. 623), has shaped the way I feel toward and empathize with EBs' education. Secondly, as a secondary Spanish teacher, I have learned that being authentic while building trusting relationships with students is central to advance and humanize the educational experience. Lastly, working with rural secondary teachers in rural Florida has allowed me to establish strong bonds with them as well as to understand their struggles in implementing ESOL instruction and considering the role that rurality plays in EBs' education. These experiences have shaped my work in this rural school community and the findings in this study (Creswell & Poth, 2018).

Findings

Findings from this study demonstrated that participants' knowledges, e.g., personal, professional, and place-based, are to be understood as contextualized dimensions. The unique interconnectedness of these dimensions constantly guided teachers' professional work and informed the different approaches teachers

appropriate to enact instruction and build relationships with EBs. In this section, I describe findings related to the personal and place-based knowledges of the participants.

The Personal Dimension: Prioritizing Relationships De Corazón a Corazón

Participants highlighted two knowledges related to the personal and professional TK dimensions: (1) teachers' knowledge that their bilingualism, hispanidad (Hispanic ethnicity), and faith were resources for teaching EBs; (2) teachers' knowledge that conceptualizing emotional and authentic two-way relationships with EB students was a priority in their work with EBs. That is, teachers showed their authenticity by leveraging their bilingualism, ethnicity, and religious beliefs to build these relationships. Findings demonstrated that the participants' own constructions and understandings of their personal knowledge, e.g., their personal lived experiences, and backgrounds, were prioritized over their professional knowledge and experiences in their work with secondary rural EBs in this rural school community.

Bilingualism and Hispanidad: "A Very Big Plus"

The participants relied on their cultural and linguistic backgrounds and knowledges to inform cultural and instructional activities in the classroom. Jacqueline, Marisol, and Adela asserted that their bilingualism and hispanidad were resources for building communication with EBs that helped them to establish strong bonds with EB students. While Marisol and Adela leveraged their own bilingualism and hispanidad, Jacqueline, who is bilingual, embraced hispanidad while growing up and leveraged the EB students' hispanidad as a resource in relationship-building. The participants leveraged their bilingualism and hispanidad to learn about EBs' socioemotional and academic needs and to share aspects of their lives with them as well.

Growing up in an African American low-income family in south Florida, Jacqueline was exposed to cultural and linguistic diversity. She recalled, "being born in Palm Beach gave me exposure to Latinos because in our neighborhood at that time, [there were] Blacks and Latinos, not so much Whites." In

her neighborhood, the Latinos were mostly Cubans who spoke primarily Spanish. She learned quickly that speaking Spanish to the Hispanic elders made them feel at ease. Jacqueline was constantly exposed to different Spanish accents and, as she remembered, "it was what inculcated my interest in it." She stated that her experiences with diversity and bilingualism are resources for her job as a Spanish teacher and her work with rural secondary EBs. Her bilingualism and embraced hispanidad allowed her to get to know students and families and to establish strong relationships with them, she explained,

Understanding a parent, family dynamic even is important. It can be difficult, because one...thing is the language barrier for many teachers...And a lot of parents simply withdraw from dealing with this school and the system unless something happens, unless something goes wrong. And that's not because they don't care about their child....[B]ut most of them, it was because they feel they can't, they have no power. They have no power in that place, so they have no standing in that place. (Jacqueline, Interview 2, June 27, 2019)

According to Jacqueline, being acquainted with hispanidad and being bilingual are personal assets and important resources for relationship-building in her work with EBs and their families.

In addition, Jacqueline realized that her bilingualism and exposure to languages and cultures growing up bridged cultural gaps in the classroom and facilitated the connections she made as EB teacher and teacher and mentor at her school. These experiences helped her to see "the whole picture" and to identify the academic and socioemotional needs of EBs that often go beyond language barriers (Jacqueline, Interview 1, 6/13/19). Jacqueline's personal life experiences growing up in West Palm Beach prepared her to not only meet the academic and social needs of her EB students but also to mentor other English-speaking colleagues who lacked experiences with diverse student populations.

Likewise, Marisol was passionate about the work she has done with her EB students. A Neorican, a fusion of New York and Puerto Rican

heritage, Marisol was the first generation in her family to be born in the United States as both her parents were originally from the island of Puerto Rico. Her personal background combined with her hispanidad and bilingualism provided the confidence required to meet EBs' academic and social needs. She remarked,

I think the biggest part of being confident is because I know the language. I'm able to communicate. . . There's a lot of kids that won't let you teach them because they don't feel comfortable. So, confident I am and it's mostly because of my [Hispanic] background. I think that's a very big plus." (Marisol, Interview 2, June 24, 2019)

She explained how her cultural and linguistic background facilitates her work with EBs,

Meeting them, getting to know them first it is a heart to heart thing and if they know where I come from, then they know I understand where they come from. And that makes the first connection, and it makes it easier to teach them too. (Marisol, Interview 1, June 17, 2019).

By leveraging her bilingualism and hispanidad, Marisol prioritizes relationship-building *de corazón a corazón* ("heart to heart") and lets her EB students "know where you are coming from as a teacher." In an authentic way, Marisol establishes strong bonds with her EB students from day one.

Similarly, Adela, a certified Spanish teacher from Puerto Rico with twelve years of teaching experience who had been working in Ivy County since 2013, expressed that being Hispanic and bilingual were important resources in her teaching. She asserted that her strong connection with EB students stemmed from her puertorriqueñidad and her respect for all Hispanic cultures. When Adela spoke of her puertorriqueñidad, she referred to the different ethnicities and races that comprise the complex Puerto Rican ethnic and racial reality: the Taíno, Spanish, and African.

When I asked Adela to share a picture related to her personal background, Adela shared a photo of her favorite beach in our mutually beloved island of Puerto Rico (see Picture 1). The picture depicted a lighthouse in the distance, but what was evident

was the beautiful blue skies reflected on the water. Adela explained that she chose this picture because it symbolized for her the openness, the heart of our Boricua culture, and the essence of her hispanidad. Listening to Adela as I simultaneously looked at the photo, I could sense Adela's feelings of pride and peace emanating from her oral description of the picture. Adela knew that her puertorriqueñidad guided her to create a classroom space in which students could sense the same happiness and welcoming feeling she experienced being close to the ocean in the island. She explained that the beach in Puerto Rico was her happy place. She

smiled and remarked, "la playa es mi lugar feliz, la sal, la arena. No sé, la gente lo identifica con limpieza, pureza, libertad....Viene y va, siempre regresa" "the beach is my happy place, the salt, the sand. I don't know, people identify it with cleanliness, purity, freedom....It comes and goes, it always comes back" (Adela, Interview 1, June 28, 2019). A shared, common puertorriqueñidad forged a strong bond between us, and I understood how Adela was able to build that same connection with her students through her bilingualism, her puertorriqueñidad (hispanidad), and her deep knowledge of place.

Picture 1

Puerto Rico, the Island, the Sea, and the Peace: An Open Door for EBs. Photo courtesy of Marichal (2020).



She stated, "Como tú eres boricua [tú me entiendes], cuando tú vas a la playa y te sientas ahí, es como que—como una limpieza, como que tú le das al mar tu dolor y ella está ahí y te escucha, no sé. Y es mi lugar feliz, es mi lugar feliz, no sé" "Since you are boricua [you understand me], when you go

to the beach and sit down there, it is as if—as a cleanse, as giving the sea your pain and she is there, listening to you, I don't know. And it is my happy place, I don't know" (Adela, Interview 1, June 28, 2019). She added that recreating these

emotions in her classroom was one of her main goals as a teacher.

Jack, the monolingual participant from rural Tennessee, also noted the importance of being bilingual in that he failed to capitalize on learning the language when he had the opportunity early in life. He admitted.

I kind of kicked myself for, is not realizing how important it would have been for me to learn Spanish better, whenever I was in college . . . I really wish someone in the education program would have stressed the importance of being . . . You don't have to necessarily be bilingual, but being able to communicate with students, that's one of the hardest parts. . . . The students may be able to do this task, but it's going to take me an extra five to ten minutes to explain to them verbally, what exactly I would like for them to. (Jack, Interview 2, June 25, 2019)

Despite his stated language limitation, Jack also described the importance of building relationships by being an authentic teacher with his EB students. Although he acknowledged the difficulty of developing a relationship with Hispanic EBs, he knew that "you've got make those connections because a lot of times that's going to be how you make that difference" (Jack, Interview 3, July 4, 2019). Jack established relationships in creative ways using technology in pedagogy. Using dialogue journals and Google translate allowed Jack to share aspects of his personal life with his students as well as to learn about their Hispanic culture, lived realities, and educational inequities. Jack asserted that learning about his students' lives also let them know he cared for them. Moreover, getting to know each other in this way allowed Jack to use that information in his work with EBs in the classroom. Even though Jack could not leverage his own hispanidad, he recognized its importance, learned about it, validated it, and brought it into the classroom.

Faith

In addition to leveraging their bilingualism and hispanidad, Marisol and Adela revealed that their faith informed their work with EBs and the way they approached their relationship-building with them.

Knowing the deep faith of the community and guided by her personal spirituality, Adela acknowledged that she constantly prayed for her EB students' well-being and personal struggles, which allowed her to establish strong bonds with them. Using Revelations 3:8, Adela described, "hay como una historia bíblica que dice que tú bendices las puertas de tu casa, que todo el que entre reciba bendiciones. Es algo que vo acostumbro hacer mucho" "There is a Bible story that says that you bless the doors of your house and as people enter, they receive blessings. It is something I do a lot" (Adela, Interview 1, June 28, 2019). Every morning, she offered her blessings by touching EBs' backpacks as they entered her classroom door. She knew that her authenticity, faith, and caring pedagogy in the classroom was a source of comfort for students that allowed them to focus on their education.

Similarly, Marisol, guided by her personal religious belief and her deep knowledge of place and EB students, was able to display religious motifs in her classroom (see Picture 2). Marisol described her "shrine" or classroom back wall as a source of comfort for her EBs.

I put things that represent me. Sometimes I won't use words. I'll have a cross, I'll have butterflies, I'll have quotes of believe, dreaming, anything positive. The kids would walk into my room and they would have an idea of me without me even telling them about me at first.... I've always experienced that when the students walk into the classroom, and they looked around first, they had an idea of what type of teacher was in the room. At that moment, I started winning their trust, their respect without saying a word. (Marisol, Interview 3, July 3, 2019)

Picture 2

Marisol's shrine. Photo Courtesy of Marichal (2020).



Their deep spirituality and religious beliefs served as an additional source of knowledge that allowed Marisol and Adela to further develop a personal and emotional relationship with their EB students.

The Place-Based Dimension: Advocating for EBs

Regarding the participants' knowledge of rurality, two knowledges were most salient: (1) teachers' knowledge of the uniqueness of the rural community and (2) teachers' knowledge to be the voice of secondary EB students in this Florida rural school community. For example, teachers who grew up in rural communities had deep insider-knowledge of how the specific community functioned and how they could leverage that knowledge to advocate for rural secondary EBs.

The Uniqueness of the Rural Community

The participants revealed that each rural community was different, and the uniqueness of this rural community impacted their work with EBs. Jack recognized the uniqueness of rural communities in that rurality must not be overgeneralized because "there are intricacies to each place and each space" (Jack, Interview 3, July 4, 2019). Through the use of photo elicitation (see Picture 3), Jack was able to

contrast his experiences with rurality in Tennessee and Florida by asserting that the physical space in a rural community influences the lifestyle of that community.

He explained that in Ivy County,

[EBs] they've got to walk a farther distance to get to a bus stop to, to be picked up. And if they miss the bus, there's no catching a ride with someone else... Whenever you missed the bus or whatever it may be then you are not going to school that day." (Jack, Interview 3, July 4, 2019)

Contrasting rurality in the rural south and Florida and reflecting on the strengths and weaknesses of both areas, Jack was able to anticipate obstacles that geography imposed on his EB students' daily life as he engaged in this rural school community.

Findings from this study suggested that places are more than a geographical space or location. For instance, Jacqueline noted, "Place informs what you need to know" and repeatedly underscored the uniqueness of place. Jacqueline emphasized that lvy County's insularity and the lack of access to intellectual stimuli, such as libraries and museums, resulted in a lack of access to certain types of knowledge.

Picture 3

Jack's childhood home in rural Amaryllis, TN. Photo courtesy of Marichal (2020).



She acknowledged that teachers as well as EB students come to Ivy County with different personal geographic backgrounds and entered their relationship together in this particular place. She described her priorities related to EBs' education,

I strive to comprehend and internalize the place. Your first place is your place, and that's another thing: we have to understand as teachers, these students, our ELs' [EBs'] first place, is their place. So, we have to teach them about this place. (Jacqueline, Interview 3, July 27, 2019)

Jacqueline underscored the need for teachers to problematize place and consider how it shapes their work with EBs and how it impacts their education.

Adela learned from her EB students the importance for teachers to internalize the uniqueness of place. Teachers need to understand that Ivy County's geography combined with its seasonal agricultural-based economy affected EB attendance to school. Having to travel long distances, lack of public transportation, and other EB-lived realities contributed to an increase in EB school absenteeism. For example, Adela named absenteeism as one of the most significant

problems experienced by EBs in their school. She contemplated,

El problema de ausentismo es real. No sé si es por la distancia...no sé si es como van a trabajar cuando llegan es tan tarde. Prefieren faltar a esa primera clase o llegar tarde al primer periodo. (The problem with absenteeism is real. I don't know if it is because they go to work and get home late. They prefer to skip that first class or be late to the first period.) (Adela, Interview 3, July 26, 2019).

Echoing Jack's, Jacqueline's, and Adela's assertions about teachers' awareness of the uniqueness of place, Marisol also underscored the need to get to know and understand place as it impacted their work as teachers in Ivy County. She elaborated.

This rural here is different from theirs where there's more houses. You still have campos [countryside] alrededor, but then you still have roads. You know, you may have vehicles over there, they may have horses, you know, the atmospheres would be different. (Marisol, Interview 4, July 22, 2019)

Marisol knows that one could not assume that the physical aspects of rurality were experienced in the same manner in every rural community because she understands that knowledge of rurality included the space and the social processes characteristic of that particular rural community.

The Voice of Secondary EB Students in This **Rural Community**

Participants asserted that their knowledge of the rural school community (e.g., insularity, access to material and financial resources, and the way of life) and their personal relationship with the EBs allowed them to recognize the existing inequities and deficit discourses towards EBs in the school. The participants recognized the marginalization that EBs were experiencing as they were "ignored and overlooked" by educators. They also recognized that EB families lacked power in that place. They understood this reaction was due to the educators' and school administrators' inability to communicate directly with EBs and families. Thus, participants felt empowered to serve as the voice of EBs in this rural community and felt a responsibility to mentor and lead other colleagues to advocate for the needs of EBs and their families in their school.

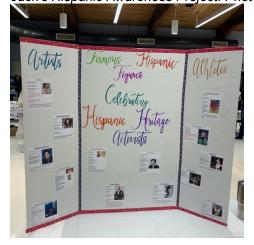
For example, Jack felt the responsibility to improve EBs' academic success as well as to increase their visibility in the school community by planning the implementation of a self-contained ESOL sheltered classroom and organizing a Hispanic awareness project. As noted, Jack leveraged EB students' bilingualism and hispanidad through the design and integration of instructional activities that elevated and validated EBs' cultural heritage. He remarked,

I feel the responsibility. I don't feel like I've been able to step out yet. But I feel like I am an advocate for...Even like the language used or the keeping it to where it's something that we can constantly keep on our minds with our EL [EB] teaching practices, that is something that I tried to keep in the forefront of our school, and our instruction. (Jack, Interview 2, June 25, 2019)

For Jack, accepting the responsibility for EB education meant to successfully implement a selfcontained ESOL classroom in which secondary EBs received specialized interventions with support from full-time bilingual paraprofessional. Jack participated in several conversations with administrators to advocate for the academic and social needs of his EB students, and his request was granted. In the context of this classroom, he guided students in a cultural awareness project in which Hispanic EBs researched famous Hispanic artists, athletes, and writers and presented the projects at the school's annual ESOL fair (see Picture 4). Jack noted that some of his EB students learned for the first time about the work and lives of these important Hispanic personalities. As Jack described, EBs felt special and proud of their hispanidad and bilingualism while sharing the project with the entire school.

Picture 4

Jack's Hispanic Awareness Project. Photo courtesy of Marichal (2020).



The educational inequities experienced by EBs in Ivy County, such as lack of bilingual material, human resources, and information, underscored the need for teachers to advocate for EBs. Participants revealed that rurality impacted finances and funding for EB education. In Hibiscus Middle High School (HMHS), a school that three years prior to this study had been consolidated from a single middle and single high school, the larger class sizes resulted in less time dedicated to the education of EBs. Jacqueline observed,

Last year I had a class of 34 kids. Now if there's one kid who's sitting there quiet, when other kids are bombarding me with questions, I could lose that child. And if it's an EL [EB] child, he or she is not going to feel able to just speak out and speak up because that may not be where they came from. That's not how you do things. So, if you aren't given the time to focus on that child, it's a huge challenge. (Jacqueline, Interview 4, July 2, 2019)

Similarly, Marisol understood that the merging of schools combined with low teacher pay resulted in a lack of bilingual teachers who would facilitate the education of Hispanic EBs. She passionately explained,

That's why I believe we lose a lot of our teachers, you know, forget the pay. We get paid less than others. Yes, that's true. But it becomes very stressful. It becomes a physical hit. And then what happens? It affects our students. We're not there for our students. So now we have students that are below grade level that are not passing state testing. They're not being taught what they need to be taught. And I could keep going on and on, yeah, and, and speak about this, you know, that we have our issues for our rural and our ESOL kids. (Marisol, Interview 4, July 22, 2019)

Participants in this study acknowledged that the lack of bilingual teachers and material resources due to financial reasons had affected the education of EBs in Ivy County.

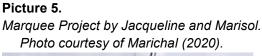
Recognizing the educational inequities experienced by her EB students, Jacqueline and Marisol felt the responsibility to keep EBs and their

families informed of school activities and important information regarding EB education. They requested that the school's administration add important announcements in Spanish on their school's marquee that was visible by anyone driving by the school. In an effort to include EBs and their families, Jacqueline and Marisol intended to keep parents informed of their children's school events as well as to elevate EBs' culture and language in the school (see Picture 5).

In the same way, Adela felt it was her responsibility to bridge cultural gaps between the school community and her EBs by creating instructional activities that valued EB students' home language and culture and empowered EBs. This was a way for Adela to not only learn from and build relationships with her EB students, but it was also a way to make EBs less invisible to school administrators, educators, and the rest of the students. Adela shared, "hay niños que te dicen: 'Uno aquí es como un fantasma,' están, pero no están porque nadie los ve, son invisibles." (There are children that say, 'here, one is like a ghost' They are there but they are not because no one sees them, they are invisible.) (Adela, Interview 2, July 5, 2019). She added,

Pero muchas de las cosas que hacemos, van más relacionadas para que ellos se identifiquen con su cultura, ¿entiendes? La comida de Guatemala, de El Salvador, de México, cuando hago mis celebraciones, ...trato de que ellos se vean representados, porque ellos no tienen esa oportunidad en otras clases. (Adela, Interview 1, June 28, 2019)

(A lot of the things we do, are related so that the identify with their culture. You understand? The Guatemalan food, El Salvador, from Mexico, when I do my celebrations, I try to include those countries, so they see themselves represented because they don't have that opportunity in other classes.) (Adela, Interview 1, June 28, 2019)





One of her most popular activities was the día de los muertos celebration (Day of the Dead), in which Mexicans honored their dead relatives. Adela would celebrate the Day of the Dead in her classroom every year during the month of November as her students looked forward to the event. Adela decided, with the help of some of her students, to showcase a sample of Mexican culture for the entire school at the ESOL fair by recreating the altar honoring the dead. They cooked favorite foods of their deceased families and brought pictures of them, candles, papel picado (tissue paper with cut-out shapes), and colorful sugar skulls.

The bilingual participants acknowledged serving as language and cultural brokers in the schools as needed. They served in this way during and after school hours at school-related activities and served as mentors to other teachers to facilitate EB instruction. All four participants asserted they have provided on-site coaching to teachers in their

school, bridging the cultural and linguistic gap between EB families and schools in Ivy County.

Reimagining TK for Rural Secondary EBs: The Relational Dimension

Both personal and place-based knowledges emerged in this study as having more prominent influence on TK and their work with secondary EBs in this rural school community. This occurred because teachers predicated their instructional work with EBs on authentic and emotional give-andtake or bidirectional relationships with secondary students as individuals. That is, teachers' personal and place-based knowledges mediated and were constantly mediated by participants' relational knowledge. Thus, relationships were central to teachers' knowledge-base of working with EBs and took precedence over teaching skills and strategies (Marichal, 2020). Findings from this study showed how the various dimensions of TK (personal. professional, and place-based) informed the teaching and learning process for rural secondary teachers of EBs. A fourth knowledge dimension

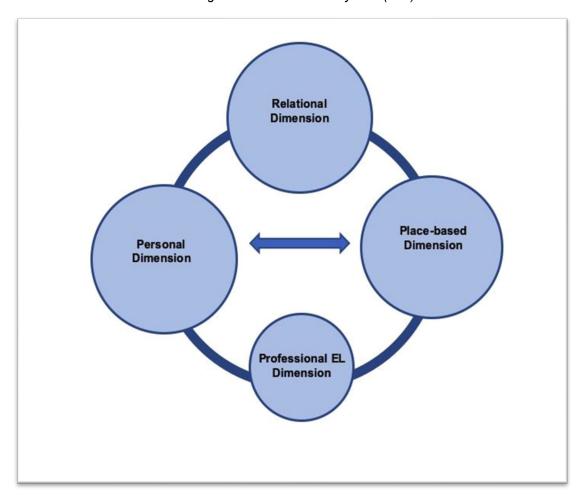
emerged from the data: relational teacher knowledge. These four dimensions constantly informed teachers' instructional approaches in their work with EBs. Based on the findings, a fourdimensional TK model is proposed (see Figure 4).

Discussion

Findings from this study underscore the prominent influence of participants' personal cultural and linguistic backgrounds on their work with EBs in this rural school community. The four participants in the study acknowledged that teachers' cultural and linguistic backgrounds were assets in building relationships with EBs and

families. Reeves (2009) showed that teachers' individual characteristics and their personal experiences-bilingualism, diverse cultural and linguistic experiences, certain personality traits, and positive attitudes toward EBs—and played a role on the teachers' knowledge-base for teaching EBs. While Marisol and Adela asserted that their own bilingualism and hispanidad were resources for communication with EBs, allowing them to make connections and to establish strong bonds with students to attend to the whole child, Jacqueline and Jack recognized and leveraged their EBs' hispanidad and bilingualism, bringing it into the classroom.

Figure 4 Dimensions of Teacher Knowledge and Rural Secondary EBs (ELs)



The participants also relied on their cultural background to inform instructional activities in the classroom, elevating their students' heritage. Jacqueline's embraced hispanidad and her own bilingualism allowed her to communicate with students and families one-on-one in their home language to identify EBs' emergent needs beyond their bilingualism, such as learning disabilities or emotional issues. Jack recognized the importance of being bilingual in that he failed to capitalize on learning another language when he had the opportunity early in life. Nevertheless, his drive and perseverance allowed him to find other creative ways of accessing linguistic resources to learn about his EBs' hispanidad.

What was crucial in these teachers' attempts to construct authentic relationships with their students was that they not only tried to learn about the students but also shared relevant experiences about themselves with their students. While the EB literature has emphasized the need for teachers to have a "contextual understanding" of EBs' linguistic and cultural backgrounds (de Jong et al., 2013, p. 95) or a "personal knowledge of the EBs in their classrooms" (Coady et al., 2011, p. 226), the findings from the present study illuminate the importance of the bidirectional sharing of personal experiences in the development of a teacherstudent relationship. That is, the findings from this study regarding the relational dimension of a teacher's knowledge went beyond a checklist or description of what to do in acquiring knowledge about their secondary EB students as the previous EB literature had suggested (Coady et al., 2011; de Jong et al., 2013; Gallagher & Haan, 2018).

The importance for bilingual and Hispanic teachers to build these personal relationships of mutual trust or confianza have been recognized by multiple scholars over decades of research (e.g., Delgado-Bernal, 2001; Ellis, 2006; González & Moll, 2002: Okhremtchouk & González, 2014). Okhremtchouk and González (2014) underscored the Hispanic teachers' reliance on their hispanidad and bilingualism for making their instruction relevant to EBs. Findings from their study on the perspectives of Latino teachers in Arizona aligned with the findings in the current study regarding the prominent influence of teachers' personal backgrounds on their work with EBs. Similarly, Villegas et al. (2012) acknowledged that the positive influence Hispanic teachers exerted over students stemmed from cultural and linguistic experiences (e.g., way of interaction, use of time and space, and other conversational patterns) that were like those of their EB students.

Participants in this study demonstrated that the personal knowledge of the Hispanic teachers connected to their deep knowledge of the rural community, informing the way to construct mutual caring (con cariño) relationships with their Hispanic EBs. Supporting this finding, Valenzuela (1999) described an authentic form of caring necessary to educate Hispanics that "emphasizes relations of reciprocity between teachers and students" (p. 61). Authentic care, as described by Valenzuela, transcends the notion of supportive relationships. Valenzuela underscored the need for teachers to incorporate actions that include consideration of the person being cared for and their capacities. In building connections with secondary EB students, the teachers in this study showed cariño (affection), love, caring, and empathy de corazón a corazón toward students' experiences as they developed their mutual caring relationships. As Nieto (2005) explained, "caring has included not only providing affection (cariño) and support for students, but also developing strong interpersonal relationships with students and their families," which included respecting and affirming their linguistic and cultural backgrounds while building on those to enhance teaching and learning (p. 32). In a similar vein, Delgado-Bernal (2001) recognized the importance to acknowledge, value, and further develop the cultural knowledge and lived experiences of teachers and students as they negotiate their identities in relationship with language, culture, communities, and spiritualities while engaging in the educational process.

For EB students, having a teacher of the same cultural and linguistic background as their own may not only offer a sense of belonging, affirmation, and pride but also supports learning through the cultural knowledge the teacher brings into the classroom. These informal or cultural knowledges taught within one's household by one's parents, which are usually not recognized or validated as formal knowledge,

are what Delgado-Bernal (2001) calls pedagogies of the home. In this study, all participants, including Jack, who integrated Google translate technology to communicate bilingually with his EBs, used Spanish as self-affirmation of their EB's culture to engage them in the relationship-building process, which was prioritized over their instructional knowledge. In addition, the bilingual participants acknowledged serving as language and cultural brokers during and after school hours at school-related activities and as mentors to other teachers to facilitate EB instruction. All four participants asserted they have provided on-site coaching to teachers in their school, bridging the cultural and linguistic gap between EB families and schools in Ivy County. Hooks (1994) acknowledged that educators who embrace the challenge to enter in a relational dimension are "better able to create pedagogical practices that engage students, providing them with ways of knowing that enhance their capacity to live fully and deeply" (p. 21). Likewise, Okhremtchouk and González (2014) recognized the need for bilingual and Hispanic teachers to challenge the system by "showing resistance and creating safe places for their students in the classroom environment that they can control and where they can make a difference" (p. 31).

Scholars have recognized that religion plays a role in the personal lives of people in the United States and in teachers' personal lives (White, 2009; Woodward & Mazumdar, 2005). Clandinin and Connelly's (1987) definition of personal practical knowledge (PPK) had underscored the moral and affective aspect of teachers' personal knowledge and its influential role in their professional lives. Along the same lines, Noddings (2005) suggested that a moral orientation in education or a relational ethic of caring presumed that human relationships are characterized by affective and reciprocal encounters. Noddings (2005) further suggested that "who we are, to whom we are related, and how we are situated" matter to develop a relational ethic of caring in education (p. 21). Delgado-Bernal (2001) argued that spirituality plays an important role in the development of one's identity as it is part of our cultural knowledge and incorporated into our daily practices. She found that some of the women in her study directly connected their spirituality to their

educational journey, their learning, or the desire to help others. Like Marisol's description of her shrine in her classroom, one of Delgado Bernal's participants described her spiritual practice of keeping a picture of the Virgin and a candle in her dorm room, "Well actually en mi room tengo un picture de La Virgen y también tengo una veladora" (p.634). Adela and Marisol acknowledged that religion was a source of guidance in their work with EBs and played a significant role in building teacher—EB student relationships.

Along with participants' personal knowledge, their place-based knowledges emerged as a prominent component of TK in this rural school community, constantly interconnected participants' personal knowledge and informing the relational dimension of TK. Reagan et al. (2019) have noted the sustained influence of the literature on place-based and place-conscious approaches to education in which scholars recognized the specificity and complexities of places (Greenwood. 2013; Gruenewald, 2003; Shamah & MacTavish, 2009; White & Reid, 2008). Findings from this study aligned with Gruenewald's (2003) research on place-conscious approaches to education when he remarked, places "teach us" and "make us" (p. 621) and "themselves have something to say" (p. 624). That is, places are unique and rich in human-world relationships; people make and shape places and places shape and make people.

The literature on rural education over the last decade has emphasized the importance of the uniqueness of place or problematizing "place-asidentity" or "thisness" focusing on what happens in this school, this place as opposed to that one (Thomson, 2000, as cited in Green & Reid, 2014, p. 33). John and Ford (2017) have underscored the significance of the relation among place, space, and location. They recognize that "the place in which one engages in the educational relationship and process impacts the educational experience" and may pose "problems, issues, possibilities, and constraints that are specific to particular places" (pp. 12-13). Findings from this study revealed, through the participants' voices, the importance of recognizing the influential nature of the rich human interactions that constantly enlighten teachers' place-based knowledges and that interact with their

personal and relational knowledges informing their work with EBs.

All participants, aware of the inequities confronted by EBs in Ivy County, repeatedly emphasized that they felt empowered and responsible to be their voice, increase their visibility, and serve as advocates and mentor-teachers to other colleagues in their rural school. Adela, Jack, Jacqueline, and Marisol reflected on their practices, collaborated, and led others to build a stance for advocacy for their culturally and linguistically diverse students. Scholars have observed that educators in rural areas must serve as advocates for EBs in their schools (Ankeny et al., 2019; Bustamante et al., 2010; Coady, 2019; Hansen-Thomas. 2018: Marichal. 2021). For instance. Palmer (2018) found that bilingual teacher-leaders of EBs were reflective of their practices and engaged in ongoing inquiry, collaborated with colleagues in co-constructed ways, and advocated for educational equity and change on behalf of their bilingual students. Aligning with Freirean pedagogy in that action or performed activism is predicated upon critical reflection, the reflections provided by this study's interviews allowed participants to discuss their emerging activism such as serving as mentors to other colleagues, as cultural brokers, and as leaders who created instructional activities, initiated new curriculum and school presentations for EB students that had the potential to change EBs' educational outcomes.

Conclusion and Implications

What emerges from the findings of this study is that the teachers' personal knowledges, informed by their knowledge of the rural community in which they work, highlighted the need for building authentic relationships with their EB students prior to enacting their professional knowledge. The unique interconnectedness of the four TK dimensions as shown in Figure 4 constantly informs the different approaches teachers appropriate to enact their EB instructional knowledge. As a result, teachers and EB students co-constructed their relationships as they engaged in their work in Ivy County. This relational process is central to understand and enact teachers' professional EB TK in this rural school community. Thus, the findings in

this study suggested that *who* teachers are and *where* they come from as well as *who* their students are and *where* they came from in *this* rural place mattered for enacting a TK for secondary EBs in Ivy County rural community. In other words, the personal experiences and knowledges of teachers mattered as much as their place-based experiences and knowledges in shaping their own professional work with secondary EBs in a rural community, blurring the lines between the teachers' personal, professional, and rural community identities.

Findings from this study add to the limited literature on secondary teachers of EBs and rurality and illuminate the complexities of TK in EB secondary rural settings in several ways. First, this study builds theory to drive practice and proposes a new model that demonstrates the connections of teachers' personal, professional, and place-based knowledges of rural secondary teachers of EBs. The model demonstrates that teachers' personal and place-based TK dimensions constantly inform and shape each other and highlights the centrality of the relational dimension that transcended existing one-way dynamics suggested by EB literature (Coady et al., 2011; Gallagher & Haan, 2018). Participants revealed that EB teachers need to conceptualize teacher-EB student relationships through authentic and loving pedagogy to engage EB students in education. Building relationships for EB teachers in this rural community was a two-way dynamic that entailed opening their hearts in authentic dialogue with the students as EBs shared aspects of their lives with them. The relevance of teachers' relational knowledge is an important contribution to the EB TK field. Future longitudinal studies that illuminate how teachers' and students' personal lives, backgrounds, and experiences interact in a particular place while informing teachers' professional work in rural school communities are needed.

Findings from this study revealed that place matters for the education of rural secondary EBs. As Greenwood (2013) posited, neglecting place overlooks "the historical, political, and cultural processes that work to shape what places become" (p. 2) and ignores the uniqueness, diversity, and joie de vivre of rural communities. Place, specifically rurality in this study, has a different meaning for

teachers and EBs and impacts classroom dynamics. The findings from this study indicate that as teachers engage with the rural school community, they bring with them their personal and place-based knowledges that constantly shape each other, dictating the professional identities and instructional decisions in their work with EBs. This is a call to all rural researchers and a reminder that "the more we know about rurality, the less we know, it seems, and, as the old saying goes, if you have seen one rural community, you have seen . . . well, one rural community" (Corbett, 2016, p. 278).

The four-dimensional model derived from the findings suggest that increasing teachers' rural knowledge and experiences as well as providing a space for teachers' personal reflexivity as they engage in a new place is paramount for rural secondary EBs in north Florida. Future research exploring teachers' reflections on how they develop authentic teacher-student relationships are warranted. In addition, further studies that explore more deeply the role that religion and race play in building these relationships are also suggested.

In addition to offering a theoretical contribution, findings from this study serve to raise consciousness about the educational preparation of secondary EB teachers in rural communities. The findings from this study inform and empower teacher preparation and PD programs to shift their stress from uniquely emphasizing professional instructional knowledge to a richer exploration and extension of teachers' personal and place-based knowledges. As Eppley (2009) suggested, educators' attention must be directed to the specific culture not only of their new school but also of the community itself. Α place-conscious rural (Greenwood, 2013) or 'place learning" (Eppley, 2009) approach to education that rejects decontextualized teacher education, must be embedded within rural teacher education programs and field experiences with the goal to foreground social, spatial, cultural, and historical contexts and to understand how the context impacts the educational experience. Rural EB scholars have demonstrated that as educators become reflective about the environments that sustain inequities, place-based knowledge can transform education for rural EBs while becoming EBs' advocates in their schools (Ankeny et al., 2019; Marichal, 2020, 2021; Marichal et al., 2021).

Educators must leverage the prominent role Hispanic and bilingual teachers play in the lives of EBs. Catalysts in building personal relationships of mutual trust or confianza with EBs and their families, Hispanic/bilingual educators have capacities, often unrecognized, in advancing the educational trajectories of their EB students (e.g., Delgado-Bernal, 2001, Flores & Claeys, 2019; Flores Carmona, 2018; Villegas & Irvine, 2010). The ever-increasing linguistically diverse demographic shifts particularly in rural settings, the critical shortage of well-prepared bilingual educators (e.g., Carothers et al., 2019; Flores & Claeys, 2019) the persistent nationally, and academic achievement gap between native and non-native speakers of English require more granular preparation and place-based education for teachers of EBs. Educators in teacher preparation and PD programs must work toward diversifying the teacher workforce and narrowing the experiential mismatch of teachers and EBs, specifically in rural communities.

Furthermore, empirical studies in the context of PD programs must document EB teachers' critical thoughts about the possibilities of developing an advocacy stance for EBs particularly in rural school communities. Drawing upon the work by Biddle and Azano (2016), to better understand the complexity and vivacity of rural communities is to understand the lived realities of students, teachers, and community members within the context of a school as the "social realities of that place determine the opportunities and constraints of schooling" (p. 316). This research suggests the importance for educators to possess an integrated vision of rural community and EB education so as to support research in rural EB teacher education that builds upon the complexities of particular places.

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Teacher Positioning in Rural Spaces: The Role of Autobiography in Culturally Sustaining Pedagogy¹

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In this qualitative study, we ask how 40 rural educators of English learners (ELs) culturally position themselves and their students. We obtained data through a cultural autobiography assignment that prompted teachers to describe their interactions and relationships with others. Drawing on both rural and non-rural experiences, teachers established their ability to exercise agency, mediated by individual histories and beliefs and the context of their rural settings. Teachers developed their capacity to reflect on the ways they position themselves toward their ELs, a crucial first step in creating culturally sustaining pedagogy. Implications point to the potential of cultural autobiography as a means to heighten rural teachers' awareness of how their experiences and interactions nuance their cultural identity. Such reflections can expand notions of culture beyond common social identifiers and enable teachers to forge links with their students that would otherwise not be apparent. We suggest this autobiographical process is particularly important for rural teachers who are new to teaching ELs in their classrooms.

Keywords: culture, English learners, narrative, rural, teacher education

Truth on this side of the Pyrenees, error on the other side.

—Blaise Pascal, 1660

A vision of truth as socially, culturally, and geographically bound is one that acknowledges differences in how we understand and interpret our experiences. This qualitative study reveals how one group of rural teachers narrated the ways in which they understood culture and language, helping to create the conditions for a culturally sustaining pedagogy for their students in the process of learning English.

Educators in rural areas of the United States now encounter a diversity of students similar to what their urban neighbors experienced decades ago (Biddle & Azano, 2016; Johnson et al., 2014). These students include English learners (ELs), some of

whom are individuals of color, recently arrived immigrants, and/or children of former transitory workers with limited economic resources (Lavalley, 2018; Lee & Hawkins, 2015). Their teachers, in contrast, are part of a profession that remains largely white, middle class, and monolingual (Hansen-Thomas et al., 2016; Tale et al., 2017). Scholars confirm that educators who do not share their students' backgrounds often do not feel competent to teach them (Pettit, 2011; Reeves, 2006; Walker et al., 2004).

The geographic isolation and financial constraints of many rural school districts mean that teachers frequently teach without the support of language specialists or a strong understanding of pedagogy that would sustain culture and language. Professional learning to enhance these teachers' capacity to serve ELs is thus a pressing concern for

¹ The views expressed are the authors' own and not necessarily those of the U.S. Government's.

rural districts (Cicchinelli & Beesley, 2017). A goal of such professional learning is for teachers to value and nurture their students' diverse and dynamic cultures (Erickson, 2010).

We examine teacher response to one aspect of professional learning, a cultural autobiography assignment that asks teachers to describe interactions and relationships with others. This work involves teachers gaining access to the real and imagined communities that form their identities and instructional practices (Kanno & Norton, 2003) as they consider their own culture in relation to their students' cultures (Phelps & Graham, 2012) via written narrative. Throughout this paper, we refer to students as English learners or ELs to be consistent with the language used by the teachers in our study.

Research Literature

In this section, we review the research that frames our study design and interpretations. The question posed in the study emerges from the junction of two areas of scholarship: rural education as it relates to English learners and cultural autobiography as a means of teacher professional development.

The improvement of education for rural ELs, including characteristics of these students and their teachers, are topics underrepresented in education research (Cicchinelli & Beesley, 2017; Coady, 2020). Much of what we know comes from studies of teachers and students in urban and suburban locales and studies of rural education more generally. There is a growing body of work, however, that combines a focus on ELs and rural education. Although far from comprehensive, this research provides a starting point for future studies needed in this subfield. Studies of rural demographics, for example, tell us that rural populations are not fixed and ELs are increasing in the classrooms of new rural destinations, primarily in central and southern United States (Lee & Hawkins, 2015). In these new destinations, providing good instruction for ELs is complicated by a host of factors such as geographic distance, uneven numbers of ELs across the locales, and teachers unprepared for changes in cultural and linguistic diversity (Coady, 2020; Lee & Hawkins, 2015).

Studies of rural ELs also tell us some factors that could mitigate these complications. A qualitative study of rural teachers in Texas found an association between teachers with coursework in EL instruction and teacher belief that they could teach Els (Hansen-Thomas et al., 2016). Teacher perceptions of online professional learning were positive in a study of rural teachers of ELs in North Carolina (Manner & Rodríguez, 2012). A review of literature in the context of rural South Africa affirms the importance of language-sensitive instruction for ELs (Mncwango & Makhathini, 2021). These studies indicate that EL-focused professional development for rural educators can make a difference.

One technique of teacher professional development that has been well established in non-rural settings is the encouragement of introspection through autobiographical narrative. Narrative inquiry uncovers individuals' thoughts on their experiences, and the narrative writing process is useful as "a way of honoring lived experience as a source of important knowledge and understanding" (Clandinin, 2013, p. 17).

Autobiographies focused on culture help teachers gain perspective on how their cultural background, experiences, and values shape their teaching and relationships with students (Chávez & Longerbeam, 2016). Chávez and others (2020) found cultural autobiography to be one way the college-level teachers in their study deepened their sense of culture and ability to transform their teaching. Cultural autobiography and other forms of reflection have been shown to allow teachers to realize the implicit biases and privileges they hold, to engage more deeply with their students, and to become more culturally responsive (Bersh, 2018). These studies focus largely on culture as defined by race, ethnicity, or gender and consider teachers in pre-service undergraduate contexts. The question of how cultural autobiography enhances teacher performance within their own classrooms, specifically in rural contexts with changing EL demographics, has not been a common focus.

Theoretical Framework

The theoretical basis for our inquiry entwines concepts of rurality, teacher narrative, culturally sustaining pedagogy, and positioning theory. We describe each of these concepts in this section. Broadly, we accept the sociocultural idea that interaction with others shapes individual understandings (Vygotsky, 1978).

Rurality

Rurality is a multilayered concept that neither policy nor research has defined in a uniform way (Dunstan et al., 2021; Thier et al., 2021). Among other features, rurality is defined by geography, economy, population density, and community. State education agencies (SEAs) typically follow the federal government in defining rurality in terms of geographic distance to urban settings (e.g., geographically fringe, distant, or remote). This way of defining rurality does not capture its cultural strengths or complexities (Stephens, 2019). A sociocultural view characterizes rurality as heterogeneous spaces of cultural meaning, tradition, and heritage. In this vein, Chigbu (2013) defines rurality as "a condition of place-based homeliness shared by people with common ancestry or heritage and who inhabit traditional, culturally defined areas or places statutorily recognized to be rural" (p. 815).

In our study, rurality reflects these different facets of meaning. Our teacher-participants resided and taught in rural areas as defined by the SEA. Their cultural autobiographies also conceptualized rurality as place-bound yet fluid, reflecting participants' multiple histories and positionalities. Rural therefore encompasses both the physical space as well as the people who inhabit that space.

Teacher Narrative

The cultural autobiography assignment that provides the focal data for our study prompted teachers to describe the stories, communities, and interactions that they perceived as significant in their lives. We intended the assignment to serve as a mediational tool for teachers to reflect on and process their experiences in the context of their present work with ELs, and with the understanding that narrative is a process that promotes

transformation (Bakhtin, 1981; Clandinin & Connelly, 2000). The narratives that resulted represent a window into the ways in which rural teachers conceptualize culture, particularly when relating to ELs. An assumption we make is that by providing teachers with the opportunity to consider their cultural identities, we help teachers possibly refocus their perspectives to meet the needs of different types of students in their communities. We see this as a process toward greater capacity for culturally sustaining pedagogy. Writing their narratives is anticipated to help teachers approach a view of "cultural differences as a doorway that invites learning about other cultures" (Oxford & Gkonou, 2018, p. 410).

Culturally Sustaining Pedagogy

Culturally sustaining pedagogy "seeks to perpetuate and foster—to sustain—linguistic, literate, and cultural pluralism as part of the democratic project of schooling" (Paris, 2012, p. 93). The concept builds on the work of Ladson-Billings and culturally relevant pedagogy (1994), Gay and culturally responsive teaching (2000, 2013) and others (Bassey, 2016) to further equitable access as a given for ELs.

In autobiographies, authors do not merely record events as they occurred but interpret them through their unique lens, which represent each subjectivities accumulated individual's and experience. During the process of writing their cultural autobiographies, our teachers necessarily took up positions for themselves, and they assigned positions for others that appeared in their stories. These positions were often tacit, not conscious, or intentional, but nonetheless important for portraying their stories in a particular way to us their instructors. We therefore found positioning theory relevant to analyzing teachers' written narratives.

Cultural Positioning

Examples of positioning theory used to understand the relationships between teachers and students in general have been steadily growing (e.g., Andreouli, 2010; Kayi-Aydar, 2015; McVee, Brock, & Glazier, 2011; Tirado & Gálvez, 2007). Harré and van Langenhove (1991) explain that "positioning can be understood as the discursive

construction of personal stories that make a person's actions intelligible and relatively determinate as social acts" (p. 395). Although Harré and colleagues first described positioning in relation to conversation analysis, subsequent researchers have applied the theory to a variety of discourse genres. Davis and Harré (1999) use the term reflexive to describe the kinds of positioning that individuals take up for themselves, and they call the positioning that subjects assign to others interactive positioning. McVee, Hopkins, and Bailey (2011) expanded the self-other definition in their study of teachers' discussion about literacy, identifying specific ways in which their teachers positioned self and other. These included self-as-other; self-inother; self-opposed-to-other, and self-aligned-toother.

In line with positioning theory's emphasis on interactions between self and other, we understand culture as complex and fluctuating in response to these interactions. We adopt Dewey's 1916 statement of culture "as the capacity for constantly expanding the range and accuracy of one's perception of meanings" (p.123). We agree with Oxford and Gkonou (2018) that culture offers a framework for examining social, historical, and imaginative phenomena. We therefore began this project with the assumption that continually examining cultural beliefs is essential for teachers of ELs.

Research Design

Our research design supports the analysis of qualitative data related to rural teacher professional development through cultural autobiography. The research question driving our analysis was how do rural teachers of English learners culturally position themselves and their students? Specifically, we examined how teachers positioned themselves and others in relation to various conceptualizations of culture. In this section, we describe the rural context of our study, the participants, our data sources, our positionality as researchers, and our data analysis procedures.

Rural Context of the Study

An estimated one million Virginia residents live in rural areas, or about 1 in 8 individuals (Pender et

al., 2019). Our research encompasses seven school districts within the state that were defined as rural-remote (n=3), rural-distant (n=3), or towndistant (n=1) at the inception of the study by the SEA. These categories represent geographic distances of five or more miles from an urban area. The identified rural districts, because of a growing number of ELs (primarily Spanish- and Haitian French-speaking) during the approximately five years prior to courses began, had to shift their staffing and priorities. Administrators in these districts reported some of the same issues as found in the rural communities studied by Lee and Hawkins (2015), namely an isolated underresourced ESL/bilingual teaching staff and a local community unsure of how welcoming they felt toward these new students. One of their key efforts was to collaborate with our university to build teachers' knowledge through graduate coursework on ways to support ELs.

Participants

The data represents the cultural autobiographies of five cohorts of rural public school educators, all of whom voluntarily enrolled in a grant-funded online graduate certificate program on instruction for ELs from 2013 to 2017. We analyzed autobiographies from every participant who agreed to take part in research (n=40). Thirty-five participants were pre-K/elementary or secondary classroom teachers of subjects that included art, ESL, English or foreign language, mathematics, music, science, special education, and social sciences. Five were teachers or former teachers serving in coach or specialist roles (e.g., library media, reading). Participants ranged from first-year teachers to teachers with more than 20 years of experience. All were female. The majority identified as White and monolingual, but teachers of color and speakers of other languages were also included. Table 1 displays the grade level and role of teachers represented. Teacher self-identity is more fully described in the findings related to social identifiers.

Table 1

Description of Participants

Level	Number of Participants
PreK/Elementary	21
Secondary, Middle	8
Secondary, High	8
Multiple	3
Role	Number of Participants
Classroom Teacher	35
Coach/Specialist	5

Data Sources

Data was drawn from a course addressing the complexities of teaching diverse students (Development and Diversity), one of five online courses teachers were required to take as part of the graduate certificate. The other courses were applied linguistics, foundations of reading, second language instructional methods, and second language reading and writing. For the majority of teachers, the diversity course was the first in the sequence of courses about teaching ELs. Due to personal scheduling constraints, two of the teachers took the course after they had already completed one or more courses in the certificate sequence. The course learning goals were for teachers to examine critically their own experiences and beliefs about culture; to apply theories on the role of culture to teaching and learning; to develop instructional methods that connect with the diversity of ELs; and to investigate ways to build partnerships with EL families and communities. The first major assignment was the written narrative in which teachers described their individual beliefs, recalled significant interactions with others, and conceptualized their relationships with larger communities and institutions. The completed assignments form the basis for our analysis. The assignment prompt is included in the Appendix.

Researcher Positionality

As authors, both researchers were intimately involved with the course and assignment as faculty at the university. The first author served as the instructor or co-instructor for four of the courses. The second author served as co-instructor for the first course and as project evaluator for the certificate program. We read the autobiographies initially for the purposes of course assessment.

Once teachers completed the certificate program and their grades were submitted, we de-identified autobiographies, assigning a unique numeric identifier for each that retained the teacher's grade level and content area. We later transferred each numeric identifier to a pseudonym to personalize the data representation. We then reread the autobiographies across all four cohorts for analysis about how rural teachers conceptualize culture. The analysis process occurred the year following the end of the program, allowing us time to distance ourselves from the course and analyze the assignments with a fresh perspective. The numeric identifiers and the time elapsed between the course and analysis process facilitated our capacity to focus on the content of the autobiographies apart from our relationship with the teachers; however, as instructors of the course, we carried with us memories and associations of the participants as students.

Data Analysis

Data analysis was an iterative and interpretive process resulting in codes that were synthesized into thematic findings addressing our research question (Creswell, 2014). Separately, we read each autobiography and assigned codes for themes that emerged from the narratives. Throughout this process, we shared impressions, documented informal interpretations, and discussed alternative explanations in conversations and in subjectivity memos. Initial codes reflected emergent themes and at times were represented in vivo by participants' words. Subsequent readings of the data and evaluations of patterns of codes led us to positioning theory as a framework to capture the ways teachers made meaning of culture. Using McVee et al. (2011) as a foundation, we examined

narratives for ways that teachers positioned themselves in relation to others (reflexive positioning) and for ways that they assigned positions to others (interactive positions). At times, the others in teachers' autobiographies ranged from the ELs in their classes to their families, friends, and neighbors to hypothetical groups of people with particular social identifiers (e.g., other races or social classes). Specifically, we found that emergent codes showed how teachers positioned themselves in relation to various others who appeared in their autobiographies; these positions assigned dynamic, and at times contradicting, identities for teachers, significant others in their lives, and the ELs they taught.

Findings

In this section, we examine themes depicting how teachers positioned themselves in reference to their cultural experiences, roles, and connections to other. We first explain how teachers understood themselves as related to common social identifiers. We then describe two main themes of positionality that emerged between teachers and their students. These themes were evidenced not only by the content of teachers' narratives but also by the language choices they used to express themselves.

The assignment was intentionally broad to allow teachers to write about elements of culture that resonated with their experience. That is, our assignment prompted teachers to consider aspects commonly included in academic or popular (i.e., disability, ethnicity, gender, discourse language, race, religion, and socioeconomic status). Teachers' written discourse demonstrated their sense of cultural place in terms of the social identifiers they chose to include. Identifying themselves as part of particular cultural groups allowed teachers to position themselves variously to their students. Our analysis documented the aspects of their lives that participants chose to share when asked to examine their own culture.

Social Identifiers

Table 2 shows the frequency of each of the social identifiers noted in teachers' cultural autobiographies and explicitly mentioned in the assignment prompt (Appendix). At least a few teachers mentioned each aspect of culture listed in the prompt, but the concepts of religion, race, and socioeconomic status appeared in more than half of the teachers' autobiographies. We also added the category of *values or character* to our list in Table 2. Twenty-two teachers identified their culture with particular values, individual character, unique experiences, or perspectives often attributed to their families or ancestry.

Table 2Social Identifiers

Dimension	Number of Participants
Religion or Faith	35
Race	26
Socioeconomic status	24
Ethnicity	22
Language	20
Gender	12
Disability	8
Values or character	22

Religion or Faith

The majority of teachers (n=35) referenced their religious backgrounds as being a core aspect of their cultural identity. Many of these teachers affiliated themselves with organized religions, using terms such as Baptist, Catholic, and Christian to define themselves. Others simply described the importance of religion or church in their lives, often connecting faith to their teaching. For instance, Olivia, a second-grade teacher, wrote,

I think the biggest influence on my acceptance of differences was because of the strong faith base that my family has in our church and the belief system that I have from its teachings. Acceptance and tolerance are lessons that I have learned from a very young age.

Faith and established religion were described as a source of foundational values that drove teachers to treat students fairly.

Race

Twenty-six teachers identified themselves by race in their autobiographies. Teachers selfidentified as White or Caucasian, African American, Asian, Black, Hispanic, Latina, Native American or as belonging to some combination of racial groups. Teachers who wrote of race as a meaningful aspect of their identity tended to be those who selfidentified as not White. Cultural autobiographies in this group referenced unfair treatment and racism. Brittany, a middle school teacher, wrote of being unwelcome at her chosen university as well as how it influenced her academic choices. When describing her experience as a new college student, she wrote, "everybody at [name of university] did not appreciate the presence of Black students in that school, not even the teachers." For this small group of teachers, race was not something represented by others but part of their everyday lives and histories.

Teachers also wrote of the otherness of race in explaining what they perceived to be an indistinct and invisible culture, alluding to rather than naming their race. The following statement is indicative of this finding: "As I grew up in upstate New York, we only went to school with White [sic] children. The only time we ever saw a Latino family or an African American family, it was on television or when the 'pickers' would come from Jamaica during apple picking season" (Willow). Here, Willow, an elementary school teacher, does not consider whiteness as race and is silent on her own racial identity. She instead associates race with the Latino or African American families she occasionally encountered. The sheltered communities that teachers experienced early in life served as contrast of cultural epiphanies teachers had because of meeting difference through migration, teaching, and other life events.

Socioeconomic Status (SES)

Twenty-four teachers included their past or current SES as part of their cultural identity. In many cases, these teachers simply offered commonly used language to situate themselves in terms of socioeconomic status (i.e., blue collar, poor, not rich, not wealthy, working class, middle class, upper middle class). However, there were also teachers who qualified or even avoided this terminology, choosing instead to more fully explain where they saw themselves with regard to status. Three examples illustrate how teachers expressed the variations in their SES: "Others could argue we were poor ... and they would be right in their assessment. Who cares?! I was HAPPY! No one can argue with that" (Jocelyne, high school teacher); "My mother's dedication allowed me to grow up in an economic situation that afforded many opportunities" (Laura, elementary school teacher); "I grew up in a working community.... I consider myself a middle-class citizen based on the assets I own and my educational background" (April, elementary school teacher). These statements suggest socioeconomic status was not simply an abstract label but a piece of identity that was important to clarify and align with their view of themselves.

Values or Character

Teachers' cultural autobiographies (n=22) also referenced family and particular values as a factor in their cultural identity formation and, in some cases, approach to teaching. As with religion, family values often represented a positive aspect of their lives. For instance, teachers described mothers who modeled a love of reading, individual grit or determination, or a strong work ethic that persisted over generations of family history. Willow wrote how showing respect represented a core family value: "My dad's side of the family owned a local [h]ot dog stand.... Their business was so personal that they didn't call numbers when your order was ready, they called names. It's important to remember people. It's important to give people respect."

Researchers have found that teachers may be so entrenched in a culture that they fail to recognize it or its influence (Ndura, 2004). They position themselves as individuals without a culture and their students as individuals whose culture needs to be fixed or responded to in some way. Although some of our teachers demonstrated degrees of this lack of awareness, we argue that the act of reflecting on their identities in relation to larger cultural and community affiliations enabled teachers to position themselves and their students in constructive ways. We next describe findings related to teachers' positioning.

Positioning

One prominent theme that emerged from our data illustrates how teachers positioned themselves as culturally privileged in relation to their students. Tellingly, our findings also reveal some of these same teachers positioning themselves as aligned with, or similar, to their students.

Teachers Positioned Themselves as Culturally **Privileged**

The majority of participants (n=24) reflected on their life experiences with at least a tacit understanding that they benefited from social and/or economic privilege. We posit that reflecting on their own culture gave teachers the insight to position themselves in this way. Eight of these teachers explicitly mentioned how they were privileged in contrast to the students they teach and/or their neighbors or friends. These teachers stated that they were appreciative of specific support or opportunities they received that their students did not or they contrasted their youth experiences directly to others. For instance, Esther, a reading specialist, explained that she was "aware that my students may have a worse home life than I do." Others articulated a sense of privilege implicitly through the language they used to describe the experiences of their peers or students. One characterized "diverse" students' circumstances as "heart-breaking." Danielle, an elementary school teacher, explained how a mission trip to Brazil "opened [her] eyes." This teacher continues to explain how the mission trip led her to pursue teaching, writing that "I can lend a helping hand when it is needed, especially for those that are unable to meet their own needs." Therefore, while this teacher does not directly compare her experience with others, she understands her position as privileged in contrast to those who may have fewer resources. Teachers articulated privilege in various ways: class or economic favor, family members who provided support and role models, and home and school congruence.

First, of the participants who described themselves as privileged, many referred to privilege in terms of class or economic resources. These teachers recognized the opportunities they had as children and youth because of their relative economic wealth. Rosalind, an elementary school music teacher, wrote, "I do believe however that growing up in a middle class family allowed me great opportunities including private clarinet lessons, attending summer camps, and travelling." Rachel, a middle school English language arts teacher, only recognized her economic privilege in retrospect as an adult. She wrote that as a teenager she felt her family "had very little" compared to her friends who "had nice things, new things." However, she explains that, "Now that I'm living in [name of rural community], I can see that we actually had a lot growing up. We had more than some of my students—and even co-workers—have now."

Second, teachers described the privilege of having role models, often drawn from their family. Willow's statement that "having a strong sense of family has been one of the most important lessons in my life" exemplifies the prominent influence that family had on many teachers. Willow particularly valued the work ethic of her family, stating "you are a product of your home environment. Working hard and doing things for yourself is something my parents have taught me from day one." As with many other teachers in this study, she connects her family life to her actions as a teacher. She explains that she entered the teaching profession to "pay it forward" and "give back to young students."

Teachers who emphasized the influence of role models did not necessarily acknowledge the possibility that their cultural position growing up may have contributed to socially desirable situations. Rosalind described her home environment as a White, middle class household. She wrote, "I also do not believe that my strengths or personality traits have been influenced by my ethnicity, language, or race. I am the person I am today because of the positive role models I have had throughout my life."

Finally, some of the teachers recognized that their families supported the same values and expectations of their classroom teachers. Olivia, for example, who wrote that she was a first-generation college student explained, "I could remember both my parents drilling it into me that I would be the first in our immediate family to go to college." While Olivia did not explicitly contrast her family's collegegoing expectations with those of her students, she juxtaposed their different situations at the end of her autobiography. She attributed her success in school to her family's "positive impact" and said many of her students "do activities together at home that promote higher level thinking." Maria, a high school Spanish teacher, discussed the congruency between home and school in terms of native language. Growing up as an English speaker, she believed "one only fails if one does not try." As with some of the teachers' reflections on their class privilege, she only recognized how her position was one of privilege when she encountered students in her role as a teacher.

In general, teacher cultural autobiography uncovered differing levels of understanding of the privilege that enabled the teachers to achieve their current role as educators for ELs in a rural school district. The nature of the autobiography assignment facilitated teachers' thinking about their own culture and the experiences that shaped their identities. Such reflection enabled teachers to give thoughtful explanations about exactly how they understood themselves as privileged rather than simply making broad statements or assumptions about the different levels of privilege.

Teachers Positioned Themselves as Aligned with/Similar to their Students

In the current research, teachers, through written autobiography, identified aspects of their personal lives that have influenced their professional identity as teachers. They wrote of situations where they could draw parallels to the feelings their students might be experiencing and similar aspects of their identities to reconcile the distance between cultures. The educational imagination thus served as a basis for empathy and familiarity.

The centrality of imagery and imagination in teacher's professional lives is well-documented (Greene, 1995; Kanno & Norton, 2003). Imagination is one of the three modes of belonging captured in Wenger's model of communities of practice, along with engagement and alignment (Wenger, 1998). Studies have demonstrated how imagination serves as a means to "connect with communities that lie beyond the local and immediate" (Kanno & Norton, 2003, p. 247). This latter concept is of importance to the teachers in this study, all of whom teach in rural settings, where resources may be limited or dispersed.

In some instances, teachers created feelings of identification by examining comparable experiences in their lives and imagining themselves in the place of their students. Brittany, for example, referred to the familiarity of being poor and its effect on how she views students with similar backgrounds: "I think this [growing up poor] has made me more empathetic to the low socioeconomic students in my classes and school." Jennifer, a pre-K teacher who earlier had identified herself as having a learning disability, wrote of relating to students who are academically challenged:

I understood how lessons could be confusing and I was able to figure out different ways to teach them that made sense....Even from my first student teaching experiences, I was drawn to those who struggled. My heart went out to them because I completely understood.

For Jennifer, the theme of empathy was expressed as understanding what her students feel. Diana, an elementary school teacher, offered a

similar reflection on a past family move and the frequent migration of her current students. She wrote, "Going through such a big change helped us to grow closer together, and it helped me to be more understanding of the upheaval that many of my students regularly experience." Both of these teachers demonstrated the power of cultural autobiography; they voiced a connection to their students in specific ways when asked to reflect on their personal culture.

Consistent with the importance of family indicated in multiple autobiographies, teachers frequently drew a sense of familiarity and empathy from the real or imagined value systems of their families and communities. When reflecting on her culturally and linguistically diverse extended family. Brittany remarked, "How could I be racially or ethnically biased? When I look at the faces of the children I teach, they in some way remind me of someone in my family." Writing about her cultural autobiography allowed this teacher to articulate a connection to her students.

Teachers who were immigrants or second language learners themselves drew on these experiences to establish kinship with their students and describe the future they anticipate for their teaching. Yuliya, an ESL teacher, wrote how she immigrated to California from Mexico at age three and learned English at school while speaking Spanish at home. She described her hopes "that I take everything I have learned as a bilingual child, teen, and woman and try to instill some of my knowledge into the EL students I teach." Sophia also grew up in a Spanish-speaking household. She referred to her immigrant identity as being a strength that she holds, which allows her to show "empathy for others who are facing some of the same challenges I faced." By emphasizing their shared history, these teachers constructed an identity as a teacher with something to offer their ELs.

Teachers who identified as less culturally or linguistically diverse drew from their experience of travel to other countries and envisioned themselves as capable, responsive teachers. Frances, a Spanish teacher, wrote of using her experiences living overseas with her foreign-service father as a means of empathizing with her students while also recognizing the limits of her comparison:

Even though I do not know what it is like to be Black, Hispanic, Asian or another subgroup in America, I try hard to remember some of the prejudices that I myself experienced. I know it's not the same, and that there are so many invasive instances of white privilege in our society that exist, but I aspire to being a person who looks in the heart and soul of an individual before making a judgement.

Teachers with limited experience outside their rural settings were nonetheless able to make personal connections to the students they teach. Maureen, a high school art teacher, wrote:

As a teacher, I do influence lives. What I didn't realize was how much teaching would influence me. The interactions that I have with such a diverse range of students are very meaningful to me. I have had the opportunity to gain insight into the experiences, successes and struggles people from several cultures socioeconomic backgrounds.

Through a process of stressing the connections to their lives, teachers identified their purpose as one of mutual understanding and relationship building. Their students became familiar to them instead of the *other*. They could envision what they hold in common and position themselves as part of the same community.

There were also teachers who expressed the idea that they could embrace rather than bridge the differences between themselves and their students. Harriet, an elementary school teacher, made this distinction in her concluding discussion of the impact of writing a cultural autobiography.

I enjoyed an upbringing that seemed free of racial strife but was in fact cocooned in a sameness that did not recognize the true diversity that abounded around me. I do still believe, as I did growing up, that people are inherently the same and should be treated with equal respect. But by viewing people as so similar, I think I have failed to appreciate that the beauty of people is in their differences.

Discussion

In this study, we asked how rural educators of ELs characterize their cultural position and the relationship between themselves and their students. As found by Chávez and others (2020), teachers uncovered connections between their personal histories and the pedagogical principles that shape their teaching through composing written narratives. Teachers became aware of their own educational "purposes and motives" (Elbaz-Luwisch, 2010) and could hear their own truths. They (re)constructed their cultural identities and, in doing so, gave new meaning to past influences on present and future teaching. Our findings demonstrated that teachers took up various social identifiers in describing their own culture. They used these cultural understandings to position themselves and their students to create productive communities.

As expressed in their autobiographies, teachers constructed their cultural narratives in terms of social identifiers, with religion/faith holding a strong place. Other studies have similarly noted religion or faith as a core value among rural teachers (Stephens, 2019). How teachers wrote of race seemed to be associated with their own racial identity. Teachers who self-identified as White either did not write of race, referenced their race implicitly by contrasting it with other racial categories, or wrote of race as something they could not understand or experience. Teachers who identified as nonwhite, however, included stories of social injustices and exclusion.

Teachers also emphasized family and the value of hard work as critical components of their culture, often narrating their family histories through an optimistic lens. They used these positive reflections to position themselves as privileged in relation to the students they teach, privileged in terms of finances, family role models, or school and home congruence. The focus on hard work represented in the narratives suggests that teachers held fast to a belief in meritocracy and did not recognize, or at least minimized, the role that their skin color or social position may have played in the privileges they enjoyed. Many teacher narratives exhibit a colorblind philosophy or one that advocates we ignore race and dismisses the role that social

institutions have played in perpetuating racial inequality. The benefits teachers received as children were often the same circumstances that disenfranchised others, but teachers shied away from acknowledging these uncomfortable truths. For teachers in our study, perhaps colorblind perspective made considerations of social imbalances easy to discuss. Therefore, while teachers acknowledged the privileges they had in contrast to their students in their positioning, they tended to attribute these privileges to family values rather than the community social identifiers we asked them to consider in the prompt (e.g., race, socioeconomic status, ethnicity).

An avoidance to articulate the difficult truths of social inequality does not mean that teachers were unable to recognize their students as individuals of worth. Rather, these autobiographies demonstrated that teachers used their particular histories and cultural understandings to position themselves and their students, even when they did not share a racial or linguistic background with each other. One of the indicators of culturally relevant teaching captured by Ladson-Billings (1994) is to see yourself as part of a community that includes your students. We found that teachers positioned themselves as similar to their students, imagining ways that aspects of their personal culture aligned with those of their students. Imagination allowed teachers to cross boundaries to create communities in which they shared experiences and cultural aspects with their students. They drew from their histories to empathize with their students, sometimes positioning their students as like them in one or more ways. These imagined communities, we suggest, contribute to teaching that is responsive to ELs. Rural teachers, more so than teachers in other settings, can be isolated from professional colleagues and current research on EL-responsive instruction (Lee & Hawkins, 2015). A key strength of rural teachers though may be what Stephens (2019) found as an "ethic of care, community, and closeness" (p. 2059). Thoughtful autobiography holds promise in moving rural teachers of ELs, the majority of whom do not share the racial, ethnic, or cultural backgrounds of their students, toward teaching that is fundamentally different.

Researchers have established a connection between "imagining the world as different from prevailing realities" (Kanno & Norton, 2003, p. 248) and developing the agency necessary to shape our future selves (Wenger, 1998). This agency takes shape in teachers' reflexive positioning and their interactive positioning of ELs. That is, they chose to take up roles that empowered them to approach teaching from culturally based perspectives rather than the norms and policies of rural districts that were new to serving ELs. While teachers did not use the term agency directly, multiple teachers' statements suggested a similar faith in being able to construct a teacher identity positioned on the side of educational justice and possibility. This agency is "socioculturally mediated" (Ahearn, 2001, p. 112); there is a tension between individual agency and the constraints of a given context (Benson, 2017). Imagination, too, is "related to social ideologies and hegemonies" (Kanno & Norton, 2003, p. 247). Many teachers in this study positioned themselves as culturally neutral or privileged, at times minimizing race, ethnicity, and other features of difference. We argue that teachers, in general, stopped short of Paris and Alim's (2014) culturally sustaining pedagogy in which educators not only acknowledge but also cultivate their students' evolving cultures and languages. However, similar to what Bersh (2018) found in her study of teacher autobiography, reflection on one's cultural identity moved teachers in the direction of cultural responsiveness. Possibly through "hopeful imagination," teachers pushed themselves to "make culturally appropriate and affirming interpretations of student difference" (Warren, 2013, p. 193). This sense of imagination is particularly encouraging for rural educators who have limited interactions with individuals outside their geographic community. As Ndura (2004) reasons, "each step in the right direction must be celebrated" (p. 15).

Conclusions

Teaching is an unpredictable and changing endeavor. Culture, likewise, is not fixed but responsive to new experiences and perspectives. This study of rural teachers of ELs deepening their cultural understanding via narrative contributes to research that is situated in these nonurbanized and nontraditional settings. Teacher cultural autobiographies are one way of asking the hard questions of our teaching field, questions of racial prejudice, cultural distance, and otherness. Paying attention to one's life through autobiographical writing can help break taken-for-granted patterns in a way that may not occur through classroom discussion alone.

Limitations of the study include those imposed by the constraints of the course. Assignment instructions framed teacher discussions in particular ways that might not occur in the absence of those instructions. Further, we did not analyze the narratives by social identifiers and instead counted instances of themes by teachers as a whole to ensure confidentiality. Future studies might take these limitations into account.

Nonetheless, this study holds significance for autobiographical writing as it relates to rural teachers of ELs, a topic that has not been given a great deal of attention. Autobiographical writing multiple purposes. In serves this autobiography enabled teachers to narrate their cultural truth; in doing so, teachers constructed identity, reflected on pedagogy, and communicated ideas of change. For this group of 40 rural teachers, cultural autobiographical writing helped them begin to make sense of their personal stories and professional identities while drawing on the cultural constructs of their past and present communities. Teachers constructed identities for themselves that were used in positioning themselves towards their students. They made the unfamiliar familiar. Autobiographical writing required teachers to reflect deeply on their histories and circumstances. The concept of culture was not easily integrated into the stories they had previously told themselves about their lives.

Whether rural educators see themselves as capable or incapable of teaching ELs is likely to influence their interactions with their students and the opportunities they provide for learning. Teachers were able to develop their capacity to reflect on the ways they position themselves towards their ELs, a crucial first step in creating culturally sustaining pedagogy. Future work is needed to examine the extent to which teachers change their classroom beliefs, dispositions, or instructional practices based on the experience of writing a reflective cultural autobiography.

Teacher education and professional learning for rural teachers of ELs might begin with autobiography and then help teachers connect their experiences with the behaviors they enact in the classroom with ELs. By starting with their own lives, rural teachers who are new to working with ELs might find unexpected ways they can relate to new populations of students. While we do not disagree with calls to diversify the teaching force so that educators resemble more closely their students in terms of the common social identifiers we use, our work suggests the potential for all teachers, regardless of background, to position themselves as aligned with their students based on similarities and create imagined communities between themselves and their students. This work is important for teachers across settings, but it is particularly timely for rural teachers in U.S. schools who are experiencing ELs for the first time in their classrooms.

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Appendix

Prompt for Cultural Autobiography Assignment

The cultural autobiography assignment is an exploration of your personal history, including the development of your cultural beliefs and perspectives. The assumption underlying this assignment is that our experiences and perspectives are the lens through which we view the world. Think about the stories that might help reveal your understanding of your culture to others.

Community: What are the disability, ethnic, gender, linguistic, racial, religious, socioeconomic or other affiliations that have been a part of your life, and influenced who you are?

Interactions: Who are the family, friends, and others who have influenced you most? In what ways have they affected your life and teaching? What was your first experience with diversity? Describe an experience where you had a newfound understanding of another's culture. What caused this new understanding to occur?

Individual: Describe your own development as a person in terms of values and behaviors. What are your strengths, challenges, learning preferences, personality traits? In what ways might these have been influenced by disability, ethnicity, gender, language, race, religion, socioeconomic status?

Book Review

Everybody Lives Near Appalachia: Examining *Hillbilly Elegy*'s Impact on American Society

Ricky Mullins, The University of Virginia's College at Wise Brooke Mullins, The University of Virginia's College at Wise

Book Reviewed: Hillbilly Elegy: A Memoir of a Family and Culture in Crisis, by J. D. Vance: HarperCollins Publishers, 2018. Paperback ISBN: 9780008220563. 272 pages.

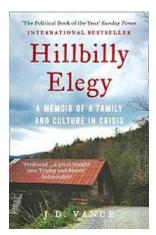
Hillbilly Elegy has had a profound impact on contemporary views and opinions of Appalachia. In this review, the authors discuss this impact and provide key critiques that help readers make sense of the generalizations made in the book by placing Hillbilly Elegy in conversation with other contemporary Appalachian scholarship. The authors conclude that J. D. Vance has a right to tell his story but telling the story of the Appalachian people is more complex and nuanced than Vance acknowledges, and the authors caution readers to consider this when reading Hillbilly Elegy.

Keywords: Appalachia, poverty, culture, rural education

We know Appalachia exists because we need it to exist in order to define what we are not. It is the "other America" because the very idea of Appalachia convinces us of the righteousness of our own lives. The notion of Appalachia as a separate place, a region set off from mainstream culture and history, has allowed us to distance ourselves from the uncomfortable dilemmas that the story of Appalachia raises about our own lives and about larger society.

—Ronald D. Eller, *Uneven Ground: Appalachia*Since 1945

In J. D. Vance's book Hillbilly Elegy: A Memoir of a Family and Culture in Crisis, Vance does exactly what historian Ronald Eller says America needs; he provides us with the "other America" through his story of life growing up within the Appalachian region. Through his narrative, he explicitly and specifically ostracizes, belittles, and attacks the people of the Appalachian region. In his own words, he "got out" of Appalachia, and because of that, he has a certain privileged stance in which



he can now stand back and point out the problems of the area and the Appalachian culture at large. However, your culture has you long before you have it; it is a work of a lifetime to understand your own culture (Garrison, 2010). Yet, in his elegy, Vance presents the façade that completely

understands Appalachia, and he tries to convince his audience that with a reading of his work, they can understand it too. Catte (2018) provides a critical warning against such elegies, "While reading Greek poetry, my professor warned us to be careful of the double meaning of elegies; they were, it seems, often written as political propaganda" (p. 53). Therefore, it is imperative, that while reading texts such as *Hillbilly Elegy*, to keep in mind the

hidden agenda and to beware of such broad generalizations.

Hillbilly Elegy Briefly Reviewed

Though I will use data, and though I do sometimes rely on academic studies to make a point, my primary aim is not to convince you of a documented problem. My primary aim is to tell a true story about what that problem feels like when you were born with it hanging around your neck.

— J. D. Vance, Hillbilly Elegy: A Memoir of a Family and Culture in Crisis

J. D. Vance wrote *Hillbilly Elegy* to tell his story of growing up in poor, white Appalachian America. Vance witnessed issues that his family and people in his area struggled with, ranging from drug addiction to physical and emotional abuse. Luckily, Vance was able to "work hard" and get out of this situation. However, Vance downplays the role of the military and how that possibly served as his "way out" of Appalachia. Instead, he employs bootstrap economics and hard work to describe what set him apart from his Appalachian counterparts, thus upholding the concept of a meritocracy, where one's abilities are what sets them apart from others. This concept posits that if someone does not succeed, they simply do not have enough talent or they are not working hard enough, placing all of the blame on the individual instead of recognizing the complexities of societal barriers. It is important that this master narrative is examined and dissected, especially for marginalized people, because if not, societal barriers stay in place and problems are not solved. This latter narrative is the narrative Vance propagates, in that he essentially argues that the people are broken, not the system.

This story is arguably well told at times throughout, and a critique of the book should in no way pedantically delve into the mechanics, grammar, and the flow of the story that Vance tells as that is not particularly problematic. Vance is entitled to tell his own story and a critique of the book is not a critique of his ability to tell his story. As Garrison (2010) notes, "Ignoring cultural traditions or the personal history of the practical inquirer, including the folk and scientific theories they contain, is in itself some kind of fallacy" (p. 115).

Therefore, Vance's story cannot be simply ignored and arguably cannot be accurately dissected, but the broad sweeping generalizations he makes about the Appalachian area can be. Vance directly tells the reader upfront that he plans to make such generalizations, with statements like "I want people to understand what happens in the lives of the poor and the psychological impact that spiritual and material poverty has on their children" (p. 2). Vance then attempts to do just this, explain the lives of "the poor" by explaining one person's experience growing up in poverty. This is in direct opposition of what Appalachian scholars warn against. For example, Obermiller and Maloney (2016) note:

One strength of Appalachian studies is presenting and encouraging the arts, but the artistic celebration of Appalachians does not require the generalizations and hackneyed images often associated with presentations on Appalachian culture.... It is possible to celebrate the richness of Appalachia without fixing it in the amber of culture. (p. 110)

While Vance's story is true for him and his family, the broad generalizations do not and cannot represent the entire Appalachian culture. In fact, House (2016) states:

I think it's important to point out that while Appalachia still may not be as racially diverse as other parts of the country, it is in fact diverse in many ways. There are not only many different races within our region, but also many different Appalachians. (p. 65)

If you have met one Appalachian, you have met one Appalachian. We are all different, and no one experience can define who we are.

To revisit the quote that started this section, Vance claims he is not attempting to convince you of a "documented problem," but actually he is, and he has convinced a large portion of America of this problem. He starts this conversation by discussing the Scots-Irish in America and his connection to them in Appalachia, a concept that has been largely critiqued in Appalachian literature (Catte, 2018; Obermiller & Maloney, 2016; Pearson, 2013). Although Scots-Irish did play a part in Appalachian culture, it is noted that "Appalachian scholars and

activists should emphasize the variety in the Appalachian heritages of the diverse people in Appalachia whether Anglo-Saxon, Scots-Irish, African, European immigrant, or Native American" (Obermiller & Maloney, 2016, p. 110). Then, Vance proceeds at moments throughout the narrative to say things like, "we're a pessimistic bunch" (p. 4), referring to all Appalachian hillbillies. oversimplifies structural inequities such as the fact that there is a lack of access to jobs in Appalachia that pay a living wage and confesses he once believed this lie too. However, he claims that he later discovered that Appalachians "just will not work" and then they will blame everyone but themselves, once again belittling the Appalachian people. The worst is yet to come, when Vance goes off on tirades, vomiting on Appalachian people by trying to generalize his experience to everyone else. We should warn the reader now, that what we are about to share may be considered disturbing, upsetting, and downright disgusting to some. Vance (2016) writes:

We buy giant TVs and iPads. Our children wear nice clothes thanks to high-interest credit cards and payday loans. We purchase homes we don't need, refinance them for more spending money, and declare bankruptcy, often leaving them full of garbage in our wake. Thrift is inimical to our being. We spend to pretend that we're upper-class. And when the dust clearswhen bankruptcy hits or a family member bails us out of our stupidity-there's nothing left over. Nothing for the kid's college tuition, no investment to grow our wealth, no rainy-day fund if someone loses her job. We know we shouldn't spend like this. Sometimes we beat ourselves up over it, but we do it anyway. (p. 146)

Vance continues writing vile statements in paragraphs that follow. It is painfully clear that Vance did not write a memoir; he wrote an indictment, an accusation, and a scathing critique of the Appalachian people based on his limited experience. Again, once you have met one Appalachian, you have met one Appalachian... yet Vance has convinced liberals and conservatives alike that they have met them all through his

narrative, which we will discuss in this next section of this analysis.

Why the Popularity of Hillbilly Elegy?

In this section, we are going to use two terms broadly: conservative and liberal. We are not attempting to do as Vance did; we are not going to overgeneralize and accuse any one group of holding one specific viewpoint as there are people within each side that may have different viewpoints than we discuss. Therefore, when we say conservative and liberal, we are more so referring to ideology than specific people.

To begin understanding the popularity of Vance's work, we are going to first start with conservatives and why the text is appealing to them. Hillbilly Elegy allows those that "got out" of Appalachia and similar places to distance themselves from people in poverty. Vance reinforces the idea of "Well if I did it, then so can you." This philosophy allows people to be apathetic because Vance tells them that there is nothing they can do because that is just how people in poverty are, thus reinforcing more conservative notions of capitalist thinking. Vance blames the Appalachian people and culture for their issues of poverty, reinforcing the culture of poverty that has been highly critiqued throughout not only Appalachian scholarship but also scholarship worldwide (Billings, 1974; Billings & Blee, 2000; Gorski, 2008). Gorski (2018) argues against such actions in that we cannot understand or "assume anything about people's values, dispositions, or behaviors based on knowing a single dimension of their identities" (p. 67). He goes on to argue that people have similar experiences such as "a lack of access to health care . . . a lack of access to living-wage work" but claims that "these similarities are not cultural. Rather they are social conditions. They are barriers and inequities in spite of which people experiencing poverty must attempt, against considerable odds, to thrive" (p. 67, emphasis in original). Hutton (2019) specifically criticizes Vance's work and argues that Vance's book was written for:

a middle- and upper-class readership more than happy to learn that white American poverty has nothing to do with them or with any structural problems in American economy and society and everything to do with poor white folks' inherent vices. (p. 23)

In essence, Vance argues that living in poverty is inherent in Appalachian people's culture; he claims there are lots of opportunities to "get out" of poverty if only they would simply work hard, which is problematic.

Now, we are going to turn our attention to those of a more liberal mindset. People in this group may read Vance's work and feel as if they are learning about another culture, a people very much unlike them, thus opening their mind and allowing them to consider another perspective. This is another critique offered by Appalachian scholars, that many works and text try to "other" the Appalachian region. They focus on treating Appalachia "as the Other in a culture that increasingly places value on Sameness" (House, 2016, p. 65). As mentioned above, Appalachia is diverse and no one experience can capture the entire culture; we are not all the same. Reading Vance's work in isolation without considering the work of critical Appalachian scholars, still further promotes the stereotype around Appalachia, thus infiltrating contaminating both conservative and liberal thought regarding the Appalachian region. Therefore, any reading of Vance's work, especially if assigned, in an academic setting, would be better if it were paired with some of the more critical scholars cited in this paper, along with probing questions that allow students to explore multiple perspectives together through democratic discourse.

Concluding Thoughts

The average Appalachian is not, then, a white, hypermasculine coal miner facing the inevitable loss of economic strength and social status, but the average Appalachian's worldview may be impacted by individuals with cultural capital who are constantly assuming we are all made in that image.

—Elizabeth Catte, What You Are Getting Wrong About Appalachia

As the title of this paper suggests, everybody lives near Appalachia. While some reading this may live far on the other side of America or even in another country, there is an Appalachia in your neighborhood. This is the place that nobody talks

about, yet everybody knows about; this is the place where people are in need of support, love, and encouragement, yet few seek to provide those needs. So, before thinking that Appalachian folks need saved, look inwardly, and realize, that Appalachia shares many characteristics with other marginalized groups in America. While the "other America" is Appalachia, as Eller (2008) reminds us, be careful, because attributes of the "other America" (p. 3) reside in your neighborhood, too.

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Book Review: Everybody Lives Near Appalachia

Pearson, S., & Wolfe, P. (2013). "The last bastion of colonialism": Appalachian settler colonialism and self-indigenization. *American Indian Culture and Research Journal*, 37(2), 165–184.

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Schedule and submission dates

Spring 2022 January 15th General topics

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Spring 2023 January 15th General topics

Fall 2023 February 28th Special issue **TBA**

The editors of the *Theory & Practice in Rural Education* would like to invite authors to submit manuscripts for forthcoming issues. *Theory & Practice in Rural Education* is a peer-reviewed journal published electronically twice per year, spring and fall. We are predominantly interested in manuscripts related to promising and effective educational practices in rural schools, educator preparation for rural P-16 institutions, and issues related to distinct rural populations. We invite several types of articles and/or multimedia creations, including those with an international focus: practice-based; educational innovations; partnerships for education; research-based articles; review articles; and book reviews focusing on rural education. (Please see *Author Guidelines* at the website for additional submission information.)

All proposals will be subject to double blind peer review.

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Theory & Practice in Rural Education (TPRE)

Call for Special Issue on Rural STEM Teacher Development



Guest Editors:
Janet K. Stramel, PhD (Fort Hays State University)
Earl Legleiter (Fort Hays State University)

STEM Teaching and Learning in Rural Communities: Exploring Challenges and Opportunities

All students have a right to a high-quality STEM education. Since the 1980s, a shortage of mathematics and science teachers has been recognized (Levin, 1985; Monk, 2007; Rumberger, 1987). Rural school districts face challenges recruiting and retaining in specialized subject areas. According to Lavalley (2018), the unique needs of rural education are "often obscured by their urban and suburban counterparts" (p. 1). Nationally 19% of all students are enrolled in rural schools, and in 13 states, that percentage is greater than 33%, and "more than 9.3 million, or nearly one in five in the United States attend a rural school" (Showalter, et.al., 2019, p. 1).

STEM Teaching and Learning in Rural Communities - Challenges and Opportunities

Darling-Hammond (1999) found that "high quality" teachers are one of the most important factors to improve student achievement. Nationally, there is a shortage of qualified STEM teachers (100Kin10, 2019). These problems are magnified when disaggregated for rural schools-as rural school districts have difficulties recruiting and retaining teachers in mathematics and science (Brownell et al., 2005). But the challenge of rural schools in providing effective teaching and learning is not unsurmountable.

We often hear about the less than stellar performance of the United States on the NAEP reported in the media (NAEP, 2019). Contributing factors include funding issues which makes STEM resources more difficult to access, technology gaps, access to resources, cultural challenges, and STEM teacher shortages. Rural districts face these unique challenges, as well as professional development, advanced coursework, diversity, and relevant and meaningful curriculum.

While rural educators and communities face unique challenges, they also provide opportunities. They bring knowledge, experiences, and local connections that can strengthen STEM education. When the complexities of rural spaces are acknowledged and factored in, collaborative partnerships can help to bring external and internal assets together to meet the very real challenges and boost STEM learning and teaching in rural schools. When asked about advantages to teaching STEM in rural communities, Buffington (2019) said that "people who live in these communities have applied understandings of STEM and can contribute that knowledge to STEM learning" (para. 10). This special issue is seeking articles from the field discussing rural school success stories of how rural districts have overcome challenges to have effective and rich STEM teaching and learning in rural schools.

Call for Articles

This issue explores the complexities, practices, and challenges and opportunities facing rural schools and universities as they design, implement STEM teaching and learning. Articles might address issues such as:

- Recruiting and retaining a skilled STEM teaching workforce
- Technology and networking solutions to support/enhance STEM teaching and learning
- Partnerships to improve and support STEM teaching and/or learning

- Advantages, challenges, and/or opportunities to teaching STEM in rural communities
- Making STEM teaching and learning relevant in rural schools
- Community-based curriculum initiatives
- Using local knowledge in STEM education
- Promising and effective educational practices in rural schools STEM education
- Educator preparation for rural STEM teaching

Those interested in being considered for this special issue should submit a full manuscript to the TPRE system (http://tpre.ecu.edu) by March 27, 2022. Questions about possible topics or ideas should be sent to Janet Stramel (jkstramel@fhsu.edu). All submissions will go through the TPRE process of double-blind review by experts in the field.

TPRE Author Guidelines: http://tpre.ecu.edu/index.php/tpre/about/submissions#authorGuidelines

Estimated Timeline

- Manuscripts Due March 27, 2022
 - o Accepted on a rolling basis up until the close date
- Double Blind Review Process:
 - o Approximately 2-month turnaround (April/May)
- Articles selected for Revise/Resubmit or Minor Edits
 - o Revise/Resubmit Deadline: 45 days from receipt of feedback (May/June)
- Second (limited) Double Blind Peer Review Process from resubmissions: Approximately 1 month turnaround (July)
- Final selection of articles selected for Minor Edits
 - o Deadline: one month from receipt of feedback (September)
- Expected Publication Date: October 2022

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