

Storylines About Rural Teachers in the United States: A Narrative Analysis of the Literature

Megan Burton

Auburn University

Kara Brown

University of South Carolina

Amy Johnson

Hunter College

Citation: Burton, M., Brown, K., & Johnson, A. (2013). Storylines about rural teachers in the United States: A narrative analysis of the literature. *Journal of Research in Rural Education*, 28(12), 1-18. Retrieved from <http://jrre.psu.edu/articles/28-12.pdf>

This narrative literature analysis examines the storylines of rural teachers told through published research on rural teachers. Using a narrative analysis approach, we investigated research published between 1970 and 2010—four decades of rural-oriented education research and policy work. Four storylines emerged from our coding of rural-related education research: (1) rural teachers are professionally isolated, (2) rural teachers are different from urban and/or suburban teachers, (3) rural teachers are often lacking in professional knowledge/teaching credentials, and (4) rural teachers are particularly resistant to change. Examining the explicit and implicit ways in which rural teachers and schools are portrayed as problematic in research underscores the significant role academics play in sustaining the “rural problem” storyline.

In the late 20th and early 21st centuries, rural schools in the United States have faced critical challenges related to teacher recruitment and retention, professional and geographic isolation, and professional credentialing of teachers (e.g., Abel & Sewell, 1999; Barrow & Thompson, 1996; Burton & Johnson, 2010; Cady & Rearden, 2009; Carlsen & Monk, 1992; Malloy & Allen, 2007; Westling & Whitten, 1996). These teacher challenges converge to generate issues of equity, for they impact the life experiences and educational opportunities of youth who attend rural schools. In turn, they negatively influence the future of rural communities as a whole. Furthermore, complex struggles between local, state, and national control of rural schools' curriculum, certification, assessment, and environment

plague rural schools and affect the professional lives of rural teachers (Kannapel & DeYoung, 1999).

Despite the social and political imperative to investigate the rural circumstance as thoroughly and comprehensively as other place-defined school phenomena (e.g., urban education) (DeYoung, 1987), researchers have rarely taken up the issue of equity in the rural context (Burton & Johnson, 2010; Yeo, 1998). We focused our investigation in this article on only one important group involved in educational equity in the rural context—teachers. Specifically, we conducted a systematic narrative analysis of the research literature on rural teachers in the United States guided by the following questions.

- What narrative storylines emerge from the empirical research literature about rural teachers in the United States?
- What do such storylines suggest or reveal about research concerning rural teachers and rural schools in the United States?

In analyzing four decades of peer-reviewed research on rural teachers, we were struck by the strong and

Correspondence concerning this article should be addressed to Megan Burton, Curriculum and Teaching, Haley Center 5020, Auburn University, AL 36849. E-mail: Megan.burton@auburn.edu

The *Journal of Research in Rural Education* is published by the Center on Rural Education and Communities, College of Education, Penn State University, 300 Rackley Building, University Park, PA 16802. ISSN 1551-0670

consistent storylines that researchers constructed about rural teachers and their experiences. By “storyline” we refer to the narrative threads within the research that depict the character and experiences of teachers. We argue that these storylines often suggest that rural teachers—due to a variety of factors including geographic isolation, lack of professional development, and resistance to change—present a formidable “problem” in the educational growth of students and the successful implementation of education policy. This article explores the storylines told in research from 1970-2010 and considers the ways these storylines contribute to a broader social and cultural narrative about rural teachers and rural schools.

Developing Storylines About Rural Teachers: A Brief Historical Overview

Scholarly attention to the unique needs of rural teachers and their preparation has permeated research during the 20th and 21st centuries. Until the late 19th century, the majority of teachers were rural or semi-rural (Sher, 1977). Urbanization and consolidation gradually made the small one-room rural school the exception, rather than the norm. Indeed, in 1917, Woofer wrote of the special nature of rural schools, highlighting the distinctiveness of the institution, but not necessarily its teachers. Although the degree of attention paid to rural schools has increased over the last 40 years, it remains a relatively marginal focus within the corpus of education scholarship. In 1979, Parks and Sher suggested that the neglect of rural education in teacher preparation, policy, research, and funding stemmed from lack of political clout and identity. This assertion was reiterated by Guenther and Weible (1983), who suggested that rural educators were “all but forgotten” (p. 59).

That said, the rural context of schooling in the United States is diverse and resists broad generalizations and conclusions (Theobald & Wood, 2010). Specifically, in 1977 Sher noted:

Rural Americans may well represent the single most diverse and heterogeneous group of individuals and communities in our society. The island village off the coast of Maine, a coal-mining town in West Virginia, a ranching area in Wyoming, a college town in Minnesota, an impoverished community in the Mississippi Delta region, a ski-resort section of Vermont, a migrant-worker settlement in Texas, an Alaskan Native village near the Arctic Circle, and a prosperous grain-farming area in Iowa have little in common, except that they are all classified as rural areas of the United States. (p. 280)

Sher’s description though written more than three decades ago remains relevant today.

With 20% of U.S. children enrolled in a rural school district during the 2008-2009 school year (Strange, Johnson, Showalter, & Klein, 2012), there is a pragmatic necessity and empirical imperative to understand the individuals who teach in these districts. Since the late 19th century, understandings of rural teachers have been intertwined with conceptions of rural schools. As such, some of the dominant narratives about rural schools, such as “the rural school problem,” are constituted by and extend to rural educators (Kannapel & DeYoung, 1999). Late 19th- and early 20th-century efforts to examine and reform rural schools contributed to the narrative of the “deficient” rural teacher. Concerns in this era concentrated on training deficiencies. The 1897 Committee of Twelve’s *Report on Rural Schools*, for example, developed the narrative of the woefully underprepared rural schoolteacher and the need to professionalize teaching. The *Report on Rural Schools* (1897) found that “normal schools do not fully prepare teachers for rural schools” (p. 83), which results, in part, with rural schools’ “suffer[ing] for the want of trained teachers” (p. 61).

Theoretical Framework

To address our questions, we examined the research articles under review as rhetorical documents that told a story and contributed to a broader social and cultural narrative about rural teachers in the United States. In taking such an approach, our work was informed by the research on narrative analysis (e.g., Cortazzi, 1993; Czarniawska, 1997; Jones, 2004; Polkinghorne, 1995; Riessman, 2002; Saldaña, 2009) and ethnographic content analysis (Altheide, 1987). Glaser and Strauss (1967) noted that library materials are similar to participants in a case study. Each text has a voice that needs to be heard. They advocated for the use of artifacts and published works as important elements for analysis in research.

Drawing on the work of Jones (2004) and Freeman (2001), we approached narrative “as a way of ordering the ‘landscape of event’” (Freeman, 1984, p. 7). As Barthes (1977) explained:

Narrative is first and foremost a prodigious variety of genres, themselves distributed amongst different substances.... Able to be carried by articulated language, spoken or written, fixed or moving images, gestures, and the ordered mixture of all these substances; narrative is present in myth, legend, fable, tale, novella, epic, history, tragedy, drama, comedy, mime, painting ... stained glass windows, cinema, comics, news item, conversation. Moreover, under this almost infinite diversity of forms, narrative is present in every age, in every place, in every society;

it begins with the very history of mankind and there nowhere is nor has been a people without narrative. All classes, all human groups, have their narratives.... Caring nothing for the division between good and bad literature, narrative is international, transhistorical, transcultural: it is simply there, like life itself. (p. 79)

In approaching narrative as a form of knowledge and a form of communication (Czarniawska, 2000), we employed narrative as an interpretive device for understanding the research conducted on and about rural teachers.

To understand portrayals of rural teachers, we examined the narratives told in research. Altheide (1987) stated, “ethnographic content analysis is used to document and understand the communication of meaning, as well as to verify theoretical relationships.... The aim is to be systematic and analytic, but not rigid” (p. 68). By using research texts to tell narratives about rural teachers, we began to see how researchers drew on a story structure to present their research. That is, as Clandinin and Connelly (2000) explained, we noticed that within research texts “a scene is set, a problem is introduced, characters are described, tension is introduced to create an unfolding plot, and there is some kind of climax and resolution” (p. 11). In their representations of rural teachers, researchers constructed images of rural teachers and rural settings.

Narrative devices of fiction provided a route to examine critically how rural teachers were depicted in research. We used four typical components of fiction, as described by Jones (2004) as areas of focus for our examination of research on rural teachers: *dialogue* and how it was “produced between the researched and researcher, the researcher and the reader, and the public at large” (Jones, 2004, p. 107); *setting* or the attention to the details of the rural community; *character* or protagonists and antagonists; and *narrative* or the plot of the story (Jones, 2004, p. 107). We situated our work in the tradition begun by researchers such as Haas (1991), who incorporated stories as a metaphor for exploring U.S. rural schools. Such constructions often highlight broader cultural storylines about rural teachers and rural contexts. This type of work involved examining the research from a perspective that strove to expand and deepen understanding of the subject.

Methodology

To understand the stories told about rural teachers in the United States, we focused on analysis of peer-reviewed articles in the field of rural education. Our process matched the one used for a focused meta-analysis conducted on urban education (Jeynes, 2005). We searched the databases that capture the bulk of scholarship in education research: Academic Search Premier, ERIC (EBSCO), Wilson Web, Educator’s Reference, JSTOR, and Web of Science. We used

the search terms “rural teacher(s)” and “rural educator(s)” to access articles that were flagged by similar keywords or contained them in their abstract. The search was limited to peer-reviewed published articles that reported on research conducted in the United States.¹ We identified 74 articles using these criteria (a sample of the 74 articles can be found in Appendix A). An additional “inclusion decision” (Kennedy, 2007, p. 139) in setting the parameters of this review was temporal; we included only articles that were published between 1970 and 2010 to establish a focus on contemporary research. The writings of Sher in the 1970s struck the authors as a useful starting point. Sher (1977) was one of the first to note the underrepresentation of rural teachers and schools in education research, despite the large population of rural teachers and schools. However, much of the work in the 1970s was comprised of historical, positional, and editorial works rather than empirical research.

Once these articles were collected and analyzed, it became clear that some seminal works were missing from our review. For this reason, the authors searched the entire collections of the three journals that are prominent in the field of rural education: *Journal of Research in Rural Education*, *The Rural Educator*, and *Rural Special Education Quarterly*. Examining these specific journals added 21 articles that had not been discovered in the initial search but met the search criteria. Research articles that focused on practicing rural teachers were included in our collection for analysis.

The articles were analyzed using narrative, ethnographic content analysis (Altheide, 1987). During an initial review of the research, it became apparent that many studies were situated in rural settings as a matter of happenstance rather than as a deliberate exploration the context of the rural schools. As Coladarci (2007) noted, “Far too often it remains unclear whether the researcher has uncovered a rural phenomenon or instead, a phenomenon that is observed incidentally in a rural setting” (p. 3). Other rural education articles were editorials rather than research. We eliminated articles that did not report empirical research or foreground the rural as a context for the research.

Subsequently, we omitted articles for review that were largely conceptual in nature, did not have a methods or methodology section, did not focus on the United States, or did not engage with the concept of rurality. Articles that focused on students, pre-service teachers, school districts, school organization (i.e., the one-room school house or consolidation), or administration were eliminated, given our focus on in-service teachers. This focus enabled an in-depth analysis of the articles, ensured a tight focus on teacher-related research, and provided a general understanding of

¹ Since we specifically wanted to focus on peer-reviewed research, we only considered works published within peer-reviewed scholarly journals. We excluded books, book chapters, dissertations, and other similar published material.

the knowledge base about those teaching in a rural context. Through this process, we narrowed our review articles further to 48 articles. This selection included one piece from the 1970s, seven from the 1980s, 15 from the 1990s, and 25 from 2000-2010. Notes of coding through multiple readings, and identification of non-research articles can be seen in Appendix A.

Each of the 48 articles was examined three times. First, they were examined to determine if they met the criteria for review. Once we identified articles for review, each member of the research team read each article two additional times for coding purposes. In addition, three articles were read and coded simultaneously by reviewers before other coding occurred in order to establish commonalities in coding.

In our first reading, we confirmed that each article met review criteria and recorded key information about the articles. If one researcher listed an article as not meeting the criteria, the other readers would confirm that notation. If researchers agreed that the criteria were not met, the article would be excluded from further reading and examination. There was no discrepancy in the evaluation of articles at this phase of the process.

Next each researcher on the team evaluated the same three articles. We compared and discussed the coding of these articles in order to establish inter-rater reliability. This process revealed that the researchers had the same understanding and interpretation of codes. While initial word choice for the codes might have varied, the underlying meaning was consistent. For example, one researcher noted "lack of credentials" and another noted "not having the correct certification" for the same element in a specific article. The discussion after these three articles were coded created some common codes that were found in the remaining articles as well.

After researchers had eliminated all articles that did not meet criteria and examined the three articles to establish commonality in coding, each reader evaluated the remaining articles. Each researcher used a different font color for notes on the table about articles and for coding that was done with each article. The different font colors enabled identification of which researcher made each comment for discussions on reliability and consistency in coding after all readings were complete. Readers noted the type of research, use of language, setting, character, and the overall portrayal of the teachers in these articles. After this initial reading, researchers met again to confirm their coding of the articles for inter-rater reliability. Researchers also discussed patterns that they noticed across the articles and emerging themes in the ways rural teachers were represented. In keeping with our narrative approach, data were analyzed inductively (Jones, 2004), with our goal being "to discover meaning and to achieve understanding" (Benner, 1994, p. 10). Each reader added to the notes made initially on Appendix A.

As Jones (2004) described narrative analysis, our analysis sessions were more similar to "brainstorming" sessions in which all interpretations and suggestions were assumed to have value, and no idea was discarded. Our analytic process was reflective and hypothesis generating (Jones, 2004). In these sessions, we discussed these themes as being more than just topics that researchers investigated about rural teachers or patterns that emerged within the data, but rather constituting broad storylines or meta-narratives about rural teachers in general (see Appendix B). From this discussion, our initial question was refined to explore the stories being told about rural teachers and how these stories contribute to a broader social and cultural narrative about rural education. We each then conducted a second reading of the articles, coding the articles using narrative, content analysis methods. This process included making note of images found in setting, dialogue, and characters that influence the reader's impression of the rural teachers.

In examining these texts, we drew on principles of narrative analysis as described by Labov (1972) and Ochs and Capps (2001). Such principles allowed us to comprehend how research on rural teachers had common narratives. To understand better how these themes were part of broader narratives told about rural teachers, we focused on *why* and *how* researchers told their stories. In his classic work on narrative structure, Labov referred to the *why* of a narrative as the "narrative evaluation." We noticed that researchers' narratives about rural teachers were focused on communicating these storylines: (1) rural teachers were professionally isolated, (2) rural teachers were different from urban and/or suburban teachers, (3) rural teachers were often lacking in professional knowledge/ teaching credentials, and (4) rural teachers were particularly resistant to change.

We identified the storylines through careful examination of dialogue, setting, character, and narrative within each article. Next, we illustrated how such components constructed various storylines on rural teachers. *Dialogue* is the discursive language used in narrative research. It can be found when the researcher shares insight in drawing conclusions and areas of future research. It is also seen when there is actual dialogue in an article through interviews. The description of the *setting* is an essential element to the narrative created in research. The way the rural contexts, schools, or classrooms are described as settings affects the perception of the teacher that is created in the reader's mind. *Characters* are at the heart of the storylines. The characters examined include researchers, teachers, and students. Therefore, the descriptions of the characters and their depictions as protagonists or antagonists are critical for understanding the driving motivation of the characters. The protagonist works to make education and life better for those in rural communities, whereas the antagonist creates

the tensions and problems associated with rural education. The plot of the story, or *narrative*, generates purpose for the research. Each of these components influences the storylines told about rural teachers by the researchers.

Limitations

As researchers, we recognize the constructivist role that we played in this project of identifying stories and analyzing narrative components. We did not attempt to make judgments regarding the “accuracy” of the stories being told, but rather focused on sharing the storylines we interpreted as emerging from published research, storylines which might reflect the storyteller more than the story itself. The storylines, whether they are accurate or not, created images and perceptions about rural education with those who read each article.

Storylines

Through our narrative content analysis of our sample of 48 articles, we identified four major storylines concerning rural educators. Our findings focus on these storylines: professional isolation (N=20), the comparisons with rural and suburban teachers (N=19), lack of professional knowledge and credentials (N=11), and resistance to change (N=15). Some articles addressed multiple storylines, while others only provided one. Appendix B provides a summary of the sample, including bibliographic information, date, and emergent storylines.

Professional Isolation of Teachers

For this storyline, researchers drew on the rural setting to depict rural schools and their teachers as geographically isolated. Building on this geographic isolation, rural teachers were often constructed as being professionally distant from resources, colleagues, and professional learning programs. Twenty articles depicted this storyline of isolation from the world beyond the local rural community. One article focused specifically on the particular isolation that teachers of color experienced in rural settings (Polidaore, Edmonson, & Slate, 2010).

The protagonists within the storyline of isolation were often university researchers and teacher educators who traveled great distances or created online courses to offer professional learning opportunities for rural teachers. Such protagonists had to overcome one “problem” of rural contexts. For example, Cady and Rearden (2009) provided online professional development for rural teachers who otherwise might not had access due to distance. In creating the setting, one article depicted an image of isolation and barren locations, describing a road to one rural community as “bumpy and desolate” (Burton & Johnson, 2010, p. 380).

In the storyline of isolation, many researchers highlighted rural teachers’ interview responses that captured

the challenge to schooling and resources that comes from the isolated nature of rural areas. These responses portrayed the teachers as protagonists who were trying to overcome obstacles of isolated rural life. For example, Burton and Johnson (2010) included teachers’ discussions of the lack of professional support and the need to make very long trips to the city to purchase supplies that are more readily available to teachers in suburban and urban areas. This finding was consistent with the work of Sparks and Wayman (1993), who found that rural teachers have fewer resources and less professional experience with multicultural education than their non-rural counterparts; this dynamic undercuts or negatively impacts the experiences they are able to provide for their students.

Teachers were also protagonists as they were challenged to motivate students by connecting course content to the students’ interests and lives. Hardré, Sullivan, and Roberts (2008) reported that rural students’ limited life experiences and future options hinder teachers’ ability to motivate them. In this way, students were the antagonists in rural education: The isolated nature of their rural lives hindered them from making connections between school-based curricular content and future opportunities.

Though isolation from resources and professional learning programs was universally reported, there were counter narratives reported by Trentham and Schaer (1985) and Kleinfeld and McDiarmid (1986) in relation to the connection they had with fellow community teachers and students. For example, Kleinfeld and McDiarmid found that teachers in rural Alaska were satisfied with their relationships with fellow teachers and students, but they dissatisfied with the lack of resources, student progress, and district management. This finding suggests that the isolation experienced is in relation to life beyond the community, whereas the local rural community is a source of support and connection.

Comparisons with Urban and Suburban Teachers

The second storyline compared rural teachers with their urban and suburban counterparts. The 19 studies in this category depicted rural settings as uniquely different from urban and suburban settings. Researchers emphasized aspects such as agrarian lifestyles, geographic isolation, the close-knit nature of the community, homogeneous cultures, and fewer social complexities. McCracken and Miller (1988) interviewed teachers in rural schools and found that while many preferred the rural location for work, these teachers did not recognize the central role that the agrarian economy played in rural schools. McCracken and Miller also found that many teachers in rural schools had pre-service experience in urban and suburban settings and lacked pre-service experience with the distinctive informal culture found in many rural schools.

Carlsen and Monk (1992) noted that the qualifications of secondary science teachers in urban and suburban schools were similar, while their rural counterparts' qualifications differed. For that reason, their research analysis included only two categories: rural and non-rural. The authors stated, "We were surprised to find few differences between urban and suburban differences" (p. 2). This observation indicates that the authors had anticipated that differences would exist between suburban, urban, and rural groups rather than the emergence of only rural and non-rural categories. In this analysis, authors were clear that "ruralness" constituted as much a culture with unique issues as it was a location: "In many places, ruralness is associated with poverty" (p. 9). The authors note that "ruralness" is often stereotyped as close-minded, poor, isolated, simple minded, and lacking resources. The authors suggested that eliminating the cultural aspects of "ruralness" of schools could eradicate problems with recruiting qualified teachers, stating that "ruralness is negatively related to some key measures of schooling quality" (p. 9). For example, Trentham and Schaer (1985) found that rural teachers express more dissatisfaction with curriculum and salary than do their urban and suburban counterparts. Carlsen and Monk suggested concrete ways to eliminate the "rural" culture of underperforming schools—combining districts so that schools are not as small, hiring more qualified teachers, and reorganizing the financing of schools.

In other studies, rural teachers and the rural setting were romanticized, cast as being devoid of social complexity, and described as one-dimensional (with little racial, cultural, or linguistic diversity) (Abel & Sewell, 1999; Espinosa, Thornburg, & Mathews, 1997; Malloy & Allen, 2007). Close-knit connection to students and communities, involved and supportive relationships with families of students, lack of behavioral issues among students, caring and selfless teachers were some of the romanticized views of teachers and the rural schools portrayed in the research. For example, Malloy and Allen (2007) highlighted the way teachers at "Nurturville Elementary" were caring, supportive, and held high expectations of students. Taken together, these three attributes (care, support, and high expectations) contributed to the retention of teachers at this small school.

Research by Trentham and Schaer (1985) and Martin and Yin (1999) reinforce this romanticized notion of caring, supportive communities. Within the Malloy and Allen (2007) storyline, the protagonists were the rural teachers and administrators who worked hard to create relationships with rural students and their families. The researchers' description of the teachers and school culture was only positive: "In the district where Nurturville is located, the school is referred to as a 'dream' school" (Malloy & Allen, 2007, p. 26). The authors acknowledged that they

selected the school because they were aware of its positive, nurturing atmosphere. They selected Nurturville, noted as a School of Excellence, without any teacher retention problems, suggesting that if other schools were to follow this school's example, retention of teachers might not be an issue. Schaer and Trentham (1985) noted the importance of matching teacher values to a school setting when hiring is essential. They found that urban teachers focused on workload, whereas rural teachers valued relationships with colleagues. Reiff and Anderson (1989) noted that the needs of rural areas were distinct and teacher education programs that served rural teachers need to prepare teachers for the unique needs of this area.

The characterization of rural students' behavior and school readiness also contributed to this romanticized view. According to Abel and Sewell (1999), rural teachers believe that student behavior issues are less severe than those facing their urban peers. This perspective could be explained by the teacher-focused instruction that was more prevalent in rural schools than their urban counterparts (Martin & Yin, 1999). Espinosa, Thornburg, and Mathews (1997) found that rural teachers rated their students' readiness for kindergarten significantly more positively than did participants in a nationally representative survey. One explanation for such characterizations was linked to the cultural alignment of schools with the local community. For example, Blinn-Pike (2008) found that both rural and urban teachers shared concern for students and community involvement, but rural teachers were more connected than their urban counterparts to the community and students. Furthermore, rural teachers perceived the religiosity, proximity, and emotional closeness shared by teachers and students to be much higher than in urban contexts.

Professional Knowledge and Credentials

In the professional knowledge storyline, eleven articles presented rural teachers as lacking professional knowledge and credentials. This storyline emerged in articles published in the 1990s and continued into the 2000s. Again, researchers prominently attributed teachers' lack of knowledge and credentials to their rural setting (Cady & Rearden, 2009; Carlsen & Monk, 1992; Cegelka & Alvarado, 2000; Zost, 2010). In addition, most of the researchers again portrayed themselves as protagonists who "saved" rural teachers—and, indirectly, their students—by offering professional credentialing and learning opportunities. For example, Cady and Rearden (2009) provided learning opportunities for rural teachers through online professional development. They explained, "the emphasis on local jobs and priorities often contradicts the broader emphasis placed on improving mathematics teaching and learning" (p. 282). Bertram (2010) also provided professional development and modeling to teachers to support their professional growth. In both instances, the researchers were the protagonists, and the

research reported was about their experiences as academics attempting to ameliorate a concern within rural schools and communities: unqualified teachers who were given scant professional learning opportunities.

In this group of articles, the rural setting was depicted as not being enticing enough to attract sufficient numbers of teachers, particularly in science and math (Cady & Rearden, 2009) and special education (Cegelka & Alvarado, 2000; Zost, 2010). According to Zost (2010), "Attracting teachers to these communities is difficult given the restrictions of fewer potential candidates" (p. 10). Many rural science teachers were described as teaching out of their fields, especially in physics and chemistry (Cady & Rearden, 2009). Likewise, teachers providing special education services were depicted as being in short supply, stretched too thin, and underprepared and lacking proper teaching credentials (Zost, 2010). In their analysis of data from the Longitudinal Study of American Youth, Carlsen and Monk (1992) found that "rural science teachers have significantly less experience [than their non-rural colleagues] (a) teaching science, (b) teaching in their current school district, (c) teaching in their current school building, and (d) teaching any subject anywhere" (p. 4). Carlsen and Monk (1992) also noted that "rural teachers reported significantly fewer undergraduate science courses and significantly fewer undergraduate science methods courses than their non-rural colleagues" (p. 5).

To rectify the situation of the underprepared rural teacher, Carlsen and Monk (1992) suggested that incentives should be offered to recruit more qualified teachers, or that school consolidation might eliminate problems associated with rural schools. Zost (2010) noted that the issue of recruitment and retention is a complex one. Specifically, a smaller pool of applicants, fewer benefits, and lower pay contribute to the shortage and thus lead to less qualified teachers in special education in rural schools. In addition, teacher preparation programs rarely prepare teachers adequately for the unique nature of teaching in rural schools.

Resistance to Change

In 15 articles, rural teachers were depicted as being resistant to change. Articles from this storyline portrayed rural teachers as old-fashioned, traditional, and inflexible in modifying their instruction to the demands of the 21st century. Rakes, Fields, and Cox (2006) used dialogue to describe the inadequate, inauthentic, out-of-date education often found in rural schools: "In these traditional classrooms, students are typically not provided with whole, dynamic learning experiences, but rather with limited, arbitrary activities" (p. 409). McCarthy and Duke (2007) discussed the frustration and disappointment experienced when trying to challenge teachers to change. As they saw it, teachers

were resistant to their efforts to support teachers in creating more inclusive classrooms:

Many of our students (classroom teachers) received K-12 educations that taught them to be passive consumers of knowledge forms that reinforced and reproduced the values and beliefs of a dominant European American culture that has been hostile to and contemptuous of Native languages and traditions. (p. 99)

McCarthy and Duke (2007) explained that teachers in their course resisted critical examination of the unique characteristics of the students whom they serve. The teachers studied grew up in the rural Alaskan system in which they were teaching. In this school, according to McCarthy and Duke, students often received diplomas for "simply showing up and spending time in class" (p. 103). While the researchers saw some success, it was very challenging to motivate teachers who had become ingrained in a passive education system.

Lewis, Ketter, and Fabos (2001) advocated for long-term collaboration between academics and rural teachers to prepare teachers to meet the needs of diverse students and to increase teacher knowledge on issues of cultural diversity. They provided another example of researchers acting as protagonists in their quest to change or save rural students and teachers. Similarly, McCarthy and Duke (2007) argued that rural teachers desperately need to break from past forms of repressive education. The McCarthy and Duke also depicted rural teachers as resistant to learning or naïve about social and cultural diversity and technology and highlighted the role that these beliefs play in their teaching. The researchers attributed such inflexibility to the teachers' rural setting, which was cast as anachronistic, unmodern, and outmoded (Lewis et al., 2001, p. 318). For example, one teacher described her rural town as a "working class town with much prejudice" (Lewis et al., 2001, p. 322).

The notion of insiders and outsiders played a critical role in the acceptance of new ideas and values. The articles that emphasized rural teachers' resistance to change described them as very closely connected to and like-minded with the community, unwilling to acknowledge or unaware of the diversity of experiences that are possible beyond the rural community. This tendency can be seen in the question posed in the title of the article, "Where Else Would We Teach? Portraits of Two Teachers in the Rural South" (Burton & Johnson, 2010). This question was a research participant's response when she was asked why she teaches in the school where she grew up. The subject shared the familiarity with the community as the motivation that kept her there. As an insider, she received support and power. In contrast, another teacher participating in the study was new

to the area and experienced challenges as an outsider until she demonstrated her commitment to the community. All articles in this storyline expressed the power of the insider, who was perceived as being like-minded, and the resistance the outsider, who was viewed as an agent of change.

Outlier

Out of the 48 peer-reviewed research articles that were published between 1970 and 2010, we found one article to be an outlier. That is, it did not correspond to the storylines developed through and supported by the other articles. We view this article as providing hints of hidden counter-narratives to the previous storylines. Thomas (2005) examined rural teachers' views of state testing and place-based education, exploring the pressures that teachers identified around standardized testing. Specifically, "preparing students for a mandated assessment called for a quick mention of all content, not a deep coverage of any academic topic" (pp. 21-22).

Thomas's (2005) work conflicted with other articles surveyed for this study—those that recognized the importance of relationships and community identity in rural schools—because teachers in this article expressed no connection with or importance in teaching community information. Unlike the other pieces that we analyzed, Thomas's article suggested that rural teachers are, in fact, connected in significant ways to "outside" influences such as state-based accountability exam requirements. Furthermore, this article underscores a diversity in the rural teaching corps by highlighting teachers who do not have tight connections with the local community. Exploring outlier articles may provide a more holistic view of rural teachers and highlight the complexities of trying to generalize such a diverse population.

Scholarly Significance

This narrative analysis of the literature on rural teachers in the United States brought several issues to our attention. First, we were surprised to find only 48 research articles in total, with just nine of these articles having been published in general education journals. Second, we were surprised by the simplistic characterization of teachers found in many of the articles. Finally, we found that many articles portrayed rurality as "the problem" to overcome rather than as the setting to understand. This matches the observations of Corbett (2007, p. 33) that many tend to view rural citizens as being deficient and out of touch with the world beyond their community.

The dearth of research focused on rural teachers in the United States is an alarming situation in the field given the increased attention to the need for high quality teachers in the past decade, particularly since No Child Left Behind (NCLB, 2002). While our initial search did

yield more published articles, few of these pieces were based on empirical research and thus were not eligible for review. However slight the total number, the focus on rural educators in research has grown substantially each decade since the 1970s.

Of the 48 articles, 28 (58.3%) were published in three journals specifically designed for research on rural education, which may indicate the extent to which these storylines are shared and accepted by the broader scholarly community. Eleven articles (23%) were published in journals that had other specific educational foci. Only nine research articles (18.8%) were published in general education journals since 1970. The lack of research about U.S. rural teachers in general education journals is significant. The broader issues related to the intersection of rural education and equitable access to high-quality education make this topic a crucial one for researchers both within and beyond the rural education community. Thus, publications beyond rural-focused journals are essential. Without publications in general education journals, many education researchers remain unaware of issues related to rural education and research in this field.

Second, we were struck by what appeared to be a pervasively flat, one-dimensional characterization of rural teachers. In our examination of the literature we found that rural teachers were seen in one of two ways: they were either framed as the "problem" within the rural teaching context or as the people working to addressing the "problem" of the rural context. Our study revealed that researchers frequently depicted rural teachers as the antagonists in the stories being told about them. As antagonists, they were part of the problem in rural education because of issues such as lack of knowledge and resistance to change. In the storyline in which rural teachers were cast in the role of protagonist, they were overly romanticized. For instance, we recognized a tendency to romanticize in "Where Else Would We Teach?" (Burton & Johnson, 2010), in which the researchers presented portraits of two novice teachers who are specifically drawn to the rural context. One reading of these portraits could be that ingrained notions of the simplicity and romanticism of the rural context have played a role in their teaching decisions.

Such romantic portrayals are no more helpful than negative portrayals, for neither captures the complexities of rural teachers and their practices. This oversimplification of the rural classroom, as opposed to the urban and suburban one, is almost taken for granted without data or research to support or refute these claims. For example, Sparks and Wayman (1993, p. 59) assumed that many rural areas have one cultural set of traditions, while urban areas have more diverse and complex social groups—without any citations and with the underlying assumption that rurality creates a more simplistic setting. Others discussed the lack of diversity

in rural communities without evidence (Burton & Johnson, 2010; Thomas, 2005). Instead perhaps researchers can begin to take heed to Corbett (2007) who suggests considering schooling within the framework of rural identity, agency, and culture. When this framework is studied and understood, perhaps the complexities of this framework can explain and validate the things, which the outside researchers currently may view as deficient or romantically simple.

Third, we were concerned that the rural setting in and of itself was repeatedly portrayed as being an obstacle to be overcome. We were surprised by this trend particularly, since 28 of the articles reviewed were published in journals committed to issues in rural education (i.e., *Journal of Research in Rural Education*, *The Rural Educator*, *Rural Special Education Quarterly*). Rural schools do have unique characteristics, but in addition to obstacles, their distinctiveness provides aspects to be celebrated and things from which other communities can learn. While we recognize that rural communities often do face high levels of poverty and a lack of institutional resources (Carlsen & Monk, 1992), we are troubled by the notion of “place as obstacle” or “place as deficit.” Such themes resonate strongly with a similar trend in research on urban education (Jeynes, 2005) and merit further investigation.

Implications and Discussion

Our identification of these storylines provides a springboard for further examination of how and why such storylines are created and perpetuated in research. The politics and ideology behind various storylines need to be further explored. For example, researchers might examine why different storylines might have emerged at various times, such as the emergence of the study of teacher knowledge and credentials in 1992. This topic was used to support the deficient narrative about rural schools that had existed since the middle half of the 20th century and to promote the growing notion of skilled teachers as change agents to rural schools (Kannapel & DeYoung, 1999). Examining storylines of teachers in general or of urban teachers specifically to see if similar storylines emerged would provide additional insight in this area.

The growth in research around rural education over the last few decades as rural communities are shrinking is another area for examination. Further exploration is needed around the factors that might explain the growth in rural teacher peer reviewed research. The researchers discovered one article from the 1970s, seven from the 1980s, 15 from the 1990s and 25 from the 2000s. This growth certainly merits further study.

Researchers committed to issues pertinent to rural communities must have a comprehensive knowledge base about the rural schools and teachers with which they

engage. More exploration into the complexity and layers of issues in rural education and with rural teachers is needed in order to provide potential counter-narratives and alternative storylines to these portraits, or to provide more detail into the complexity of these issues. The outlier (Thomas, 2005) is an example of a potential counter-narrative that could be explored in greater depth to better understand its significance and implications. Thomas (2005) noted that rural teachers under the stress of performing well on standardized testing. Preparing for these tests and the attention teachers pay to meeting the standardized concepts on these tests can create tension and neglect for the place-based education that could engage rural students and community members. Attention to counter-narratives in rural education research would contribute powerfully to other educational scholarship concerned with understanding school-related developments and policy through new frames (see Bullough, 2008; Milner, 2008; Morris, 2008). Qualitative research that explores the stories of teachers in rural areas, their successes, and their needs would add to the understanding of their complex nature if done through an open, yet critical, lens. Comparisons of the unique needs, cultures, and strengths of teachers, schools, and students in various rural areas could also add to the multidimensional story of rural education.

In addition to the need for more empirical research on rural teachers, research needs to be shared with audiences beyond the rural education scholarly community. The story being told about rural teachers could be strengthened and have a wider impact if the research were reported in more general education journals instead of those committed explicitly to the aims of rural education. Both types of publications are needed, but currently the rural voice is lacking in general education publications. The absence of rural education research in general education journals is a puzzle that needs to be solved. Bullough (2008) noted the abundance of research on urban education in general education journals, but the notable absence of rural research. Is there bias in the general education journals against this research? Is the research not being submitted to these journals? To broaden the voice for rural education, rural researchers need to present their work in a way that appeals to the wider audience. Specifically, rural education research could be framed and driven by examinations of equity and social justice—two prevailing discourses within the general education literature—to receive more acceptance among general education researchers. Publishing in education research journals such as *American Educational Research Journal*, *Teachers College Record*, *Harvard Educational Review*, and the *Journal of Teacher Education* could raise awareness of the unique circumstances of rural education as well as place-based issues that extend beyond rural schools.

It also would allow for a wider understanding of how issues faced by rural teachers connect with the national dialogue and portrayal of teachers.

The storylines of professional isolation, differences found in rural education, lack of professional knowledge and credentials, and resistance to change are areas that could connect with research beyond those focusing on rural education. Such publications would explicitly emphasize the social justice imperative for conducting research in rural schools. In such ways, rural education researchers might align themselves to the goals and intentions of researchers whose work is situated in urban contexts, highlighting the parallels and important distinctions between rural and urban education.

Examination of the similarities and differences between rural and urban education is needed to better understand the portrayal of teachers nationally. However, studies that make these comparisons need to be carefully scrutinized to highlight any potential researcher bias toward either setting. It would be interesting for researchers who specialize in each context work together to create a broader depiction of U.S. teachers. Moreover, it would contribute to our grasp of the nuances that occur in each area and the ways in which focusing on “place-defined professionals” enhances our understanding of educational processes and phenomena.

A second meta-observation was the prevalence of studies that focused on special education, science, technology and/or mathematics. Few studies examined social studies or literacy, which have unique importance and areas for study in rural education. Social studies and literacy education are areas that allow students to examine their own beliefs, perceptions, and experiences while also exploring different cultures, perspectives, beliefs, and experiences. Research in these under-studied areas is a need for deepening the understanding of education in rural areas. Furthermore, we noted the scarcity of methods used for conducting this rural research. Specifically, 71% (34) of the studies that we reviewed were survey studies, while 27% (13) of the studies relied on qualitative or ethnographic methods—interview, participant observation, or artifact analyses. One study involved a quantitative analysis other than a survey. The range of methods used for studying rural teachers could be expanded to lend new insights into the experiences of rural teachers and may help researchers tell different stories about rural teachers.

Conclusion

It is our hope that attention to the storylines found within research articles on rural education works toward several ends. First, by exploring the particular narratives and composite meta-narratives embedded in research about rural teachers, we suggest that the narratives fall into clearly defined categories. While some might suggest that

the storylines told about teachers in rural research reflect enduring and defining aspects of rural education and life, they may also speak to the pressing need for researchers to become reflective and critical of the ways in which their work implicitly and explicitly is a product of and helps to recreate these storylines.

Second, the storyline project encouraged us to think about the place and presence of rural-related research in the broader field of education publications. As relative newcomers to rural education, we were struck by the ways rural-related research rarely appeared on the pages of our field’s top journals, and instead seemed relegated to the specialized journals of the subfield. While it is important to share rural research with peers who are focused on this topic, it is also important to promote awareness and change in the broader spectrum. Thus, from this research emerges a story about research priorities and publication in the United States; it is a story where the rural largely is marginalized, and perhaps ignored, in the most prestigious journals. In drawing attention to the storylines about rural educators, we hope to begin a broader conversation about ways in which rural research can be re-centered in the pages of our broader professional publications.

Third, our focus on rural educators was pragmatic and driven by our commitments to creating a more equitable education for the children in more than half of U.S. school districts. For this reason, our research examined what is being portrayed and in what ways might we build on it. Exploring the validity of these portraits and using this knowledge to improve the pre- and in-service training of rural teachers are future directions that this study might initiate. We recognize that this literature review is a modest first step in these varied efforts, but we anticipate, and hope, that it may serve as a springboard to generate more complete and complex storylines about rural educators, education, and research.

References

- Abel, M. H., & Sewell, J. (1999). Stress and burnout in rural and urban secondary school teachers. *Journal of Educational Research, 92*(5), 287-293. doi:10.1080/00220679909597608
- Aguiler, C. M., & Rivero, H. (2006). Blogs: Ending isolation. *Principal Leadership, 7*(1), 46-51.
- Altheide, D. L. (1987). Ethnographic content analysis. *Qualitative Sociology, 10*(1), 65-77. doi:10.1007/BF00988269
- Baird, W., Prather, J. P., Finson, K. D., & Oliver, J. S. (1994). Comparison of perceptions among rural versus nonrural secondary science teachers: A multistate survey. *Science Education, 78*(6), 555-576. doi:10.1002/sce.3730780603
- Barrow, L. H., & Thompson, C. (1996). Helping rural physics teachers with a source of quantitative labs. *The Rural Educator, 18*, 1-4.
- Barthes, R. (1977). *Image/Music/Text*. (S. Heath, Trans.). New York: Noonday.
- Benner, P. (1994). *Interpretive phenomenology: Embodiment, caring, and ethics in health and illness*. Thousand Oaks, CA: Sage Publishers.
- Bertram, K. B. (2010). The Arctic Climate Modeling Program: Professional development for rural teachers. *Journal of Technology and Teacher Education, 18*(2), 231-262.
- Blinn-Pike, L. (2008). Sex education in rural schools in the United States impact of rural educators' community identities. *Sex Education, 8*(1), 77-92. doi:10.1080/14681810701811845
- Borchers, C. A., Shroyer, M. G., & Enochs, L. G. (1992). A staff development model to encourage the use of microcomputers in science teaching in rural schools. *School Science and Mathematics, 92*(7), 384-391.
- Bryant, R., Dean, M., Elrod, G. F., & Blackburn, J. M. (1999). Rural general education teachers' opinions of adaptations for inclusive classrooms: A renewed call for dual licensure. *Rural Special Education Quarterly, 18*(1), 5-12.
- Bullough, R. V., Jr. (2008). *Counternarratives: Studies of teacher education and becoming and being a teacher*. Albany: State University of New York Press.
- Burton, M., & Johnson, A. (2010). Where else would we teach? Portraits of two teachers in the rural south. *Journal of Teacher Education, 61*(4), 376-386. doi:10.1177/0022487110372362
- Cady, J., & Rearden, K. (2009). Delivering online professional development in mathematics to rural educators. *Journal of Technology and Teacher Education, 17*(3), 281-298.
- Carlsen, W. S., & Monk, D. H. (1992). Differences between rural and nonrural secondary science teachers: Evidence from the longitudinal study of American youth. *Journal of Research in Rural Education, 8*(2), 1-10.
- Castaneda, C., Kambutu, J., & Rios, F. (2006). Speaking their truths: Teachers of color in diasporic contexts. *The Rural Educator, 27*(3), 13-23.
- Cegelka, P. A., & Alvarado, J. L. (2000). A best practices model for preparation of rural special education teachers. *Rural Special Education Quarterly, 19*(4), 15-29.
- Clandinin, D. J., & Connelly, F. M. (2000). *Narrative inquiry: Experience and story in qualitative research*. San Francisco, CA: Jossey-Bass.
- Coladarci, T. (2007). Improving the yield of rural education research: An editor's swan song. *Journal of Research in Rural Education, 22*(3), 1-9.
- Corbett, M. (2007). *Learning to leave: The irony of schooling in a coastal community*. Peterborough, Ontario: Fernwood.
- Cortazzi, M. (1993). *Narrative analysis*. London: Falmer Press.
- Czarniawska, B. (1997). *Narrating the organization: Dramas of institutional identity*. Chicago, IL: University of Chicago Press.
- Czarniawska, B. (2000). *The uses of narrative in organization research*. (GRI Report No. 2000:5). Retrieved from Gothenburg University website: <https://gupea.ub.gu.se/bitstream/2077/2997/1/GRI-rapport-2000-5.pdf>
- DeYoung, A. J. (1987). The status of American rural education research: An integrated review and commentary. *Review of Educational Research, 57*, 123-148. doi:10.3102/00346543057002123
- Espinosa, L. M., Thornburg, K. R., & Mathews, M. C. (1997). Rural kindergarten teachers' perceptions of school readiness: A comparison with the Carnegie study. *Early Childhood Education Journal, 25*(2), 119-125. doi:10.1023/A:1025628721865
- Freeman, M. (1984). History, narrative, and life-span developmental knowledge. *Human Development, 27*, 1-19.
- Freeman, M. (2001). From substance to story: Narrative, identity, and the reconstruction of the self. In J. Brockmeier & D. Carbaugh (Eds.), *Narrative and identity: Studies in autobiography, self and culture* (pp. 283-298). Amsterdam: John Benjamins.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory*. Chicago, IL: Aldine.
- Gilbert, S.L. (1995). Perspectives of rural prospective teachers toward teaching in urban schools. *Urban Education, 30*(3), 290-305. doi:10.1177/0042085995030003003
- Guenther, J., & Weible, T. (1983). Preparing teachers for rural schools. *Research in Rural Education, 1*(2), 59-61.

- Haas, T. (1991). Why reform doesn't apply. In A. J. DeYoung (Ed.), *Rural schools: issues and practice* (pp. 412-446). New York, NY: Garland.
- Hall, E. W. (2007). The effects of disability awareness trainings with career and technical educators teaching in high need rural schools. *Rural Special Education Quarterly*, 26(3), 16-24.
- Hardré, P. L. (2008). Taking on the motivating challenge: Rural high school teachers' perceptions and practice. *Teacher Education and Practice*, 21(1), 72-88.
- Hardré, P. L., & Sullivan, D. W. (2008). Teacher perceptions and individual differences: How they influence rural teachers' motivating strategies. *Teaching and Teacher Education*, 24(8), 2059-2075. doi:10.1016/j.tate.2008.04.007
- Hardré, P. L., Sullivan, D. W., & Roberts, N. (2008). Rural teachers' best motivating strategies: A blend of teachers' and students' perspectives. *The Rural Educator*, 30(1), 19-31.
- Harmon, H. L., Gordanier, J., Henry, L. & George, A. (2007). Changing teaching practices in rural schools. *The Rural Educator*, 28(2), 8-12.
- Harris, M. M., Holdman, L., Clark, R., & Harris, T. R. (2005). Rural teachers in project launch. *The Rural Educator*, 26(2), 23-32.
- Huysman, J. T. (2008). Rural teacher satisfaction: An analysis of beliefs and attitudes of rural teachers' job satisfaction. *The Rural Educator*, 29(2), 31-38.
- Jeynes, W. H. (2005). A meta-analysis of the relation of parental involvement to urban elementary school student academic achievement. *Urban Education*, 40(3), 237-269. doi:10.1177/0042085905274540
- Jones, K. (2004). Mission drift in qualitative research, or moving toward a systematic review of qualitative studies: Moving back to a more systematic narrative review. *The Qualitative Report*, 9(1), 95-112.
- Kannapel, P. J., & DeYoung, A. J. (1999). The rural school problem in 1999. *Journal of Research in Rural Education*, 15, 67-79.
- Kennedy, M. M. (2007). Defining a literature. *Educational Researcher*, 36(3), 139-147. doi:10.3102/0013189X07299197
- Kleinfeld, J., & McDiarmid, G. W. (1986). The satisfaction of Alaska's isolated rural teachers with their work life. *Journal of Research in Rural Education*, 3(3), 117-120.
- Labov, W. (1972). *Language in the inner city: Studies in the Black vernacular*. Philadelphia: University of Pennsylvania Press.
- Lewis, C., Ketter, J., & Fabos, B. (2001). Reading race in a rural context. *International Journal of Qualitative Studies in Education*, 14(3), 317-350. doi:10.1080/09518390110029454
- Malloy, W. W., & Allen, T. (2007). Teacher retention in a teacher resiliency-building rural school. *The Rural Educator*, 28(2), 19-27.
- Martin, N. K., & Yin, Z. (1999). Beliefs regarding classroom management style: Differences between urban and rural secondary level teachers. *Journal of Research in Rural Education*, 15(2), 101-105.
- Matthes, W. A., & Carlson, R. V. (1987). Why do teachers choose rural schools? *The Education Digest*, 52, 27-29.
- McCarthy, K. W., & Duke, T. S. (2007). The observation, documentation, and shared reflection process: Preparing early childhood educators to teach in Alaska Native communities. *Journal of Early Childhood Teacher Education*, 28(2), 97-113. doi:10.1080/10901020701363886
- McCracken, J. D., & Miller, C. (1988). Rural teachers' perceptions of their schools and communities. *Journal of Research in Rural Education*, 5(2), 23-26.
- McKinney, L. J., Fry, P. G., & Pruitt, N. E. (1997). The road not taken: Assessing rural teachers' knowledge of multicultural children's literature. *The Rural Educator*, 18(3), 7-11.
- Milner, H. R., IV. (2008). Disrupting deficit notions of difference: Counter-narratives of teachers and community in urban education. *Teaching and Teacher Education*, 24(6), 1573-1598. doi:10.1016/j.tate.2008.02.011
- Morris, J. E. (2008). Research, ideology, and the Brown decision: Counter-narratives to the historical and contemporary representation of Black schooling. *Teachers College Record*, 110(4), 713-732.
- National Education Association of the United States. (1897). *Report of the Committee of Twelve on rural schools*. Chicago, IL: University of Chicago Press.
- No Child Left Behind (NCLB) Act of 2001, 20 U.S.C. § 1119 (2002). Retrieved from <http://www2.ed.gov/policy/elsec/leg/esea02/107-110.pdf>
- Norris, J. H. (1998). Teaching styles of publicly recognized rural teachers. *The Rural Educator*, 19(3), 39-42.
- Ochs, E., & Capps, L. (2001). *Living narrative: Creating lives in everyday storytelling*. Cambridge, MA: Harvard University Press.
- O'Neal, D. D., Ringler, M., & Rodriguez, D. (2008). Teachers' perceptions of their preparation for teaching linguistically and culturally diverse learners in rural eastern North Carolina. *The Rural Educator*, 30(1), 5-13.
- Ortlieb, E. T., & Cheek, E. H. (2008). How geographic location plays a role within instruction: Venturing into both rural and urban elementary schools. *Educational Research Quarterly*, 31(2), 48-64.

- Parks, G., & Sher, J. P. (1979). Imaginary gardens? Real problems: An Analysis of federal information sources on rural education (Report No. EC-076). Washington, DC: National Institute of Education. Retrieved from ERIC database. (ED167318).
- Pibal, D. C. (1973). Career pattern study reveals a cyclical education system. *Education*, 93(3), 246-249.
- Pillai, P. (1999). Using technology to educate deaf and hard of hearing children in rural Alaskan general education settings. *American Annals of the Deaf*, 144(5), 373-378.
- Polidore, E., Edmonson, S. L., & Slate, J. R. (2010). Teaching experiences of African American educators in the rural south. *The Qualitative Report*, 15(3), 568-599.
- Polkinghorne, D. E. (1995). Narrative configuration in qualitative analysis. In J. A. Hatch & R. Wisniewski (Eds.), *Life history and narrative* (pp. 5-23). London: Falmer Press.
- Porter, M. (1998). Points of light, bridges to the future, flower gardens, and the Alamo: Rural teachers' metaphors of schooling. *The Teacher Educator*, 33, 185-208. doi:10.1080/08878739809555172
- Powell, D., Higgins, H. J., Aram, R., & Freed, Andrea. (2009). Impact of No Child Left Behind on curriculum and instruction in rural schools. *The Rural Educator*, 31(1), 19-28.
- Rakes, G. C., Fields, V. S., & Cox, K. E. (2006). The influence of teachers' technology use on instructional practices. *Journal of Research on Technology in Education*, 38(4), 409-424.
- Reiff, H. B., & Anderson, P. L. (1989). Training needs of rural special educators in Louisiana. *Journal of Research in Rural Education*, 6(1), 45-50.
- Riessman, C. K. (2002). Narrative analysis. In A. M. Huberman & M. B. Miles (Eds.), *The qualitative researcher's companion* (pp. 217-270). Thousand Oaks, CA: Sage.
- Saldaña, J. (2009). *The coding manual for qualitative researchers*. Los Angeles, CA: Sage.
- Scribner, J. P. (2003). Teacher learning in context: The special case of rural high school teachers. *Education Policy Analysis Archives*, 11(12). Retrieved from <http://epaa.asu.edu/epaa/v11n12>
- Sher, J. P. (Ed.). (1977). *Education in rural America: a reassessment of conventional wisdom*. Boulder, CO: Westview Press.
- Short, C., & Martin, B. N. (2005). Case study: Attitudes of rural high school students and teachers regarding inclusion. *The Rural Educator*, 27(1), 1-10.
- Shroyer, M. G., & Borchers, C. A. (1996). Factors that support school change to enhance the use of microcomputers in rural schools. *School Science and Mathematics*, 96(8), 419-431. doi:10.1111/j.1949-8594.1996.tb15865.x
- Sparks, W. G., III, & Wayman, L. L. (1993). Multicultural understanding in physical education: A comparison of urban and rural perspectives. *The Physical Educator*, 50(2), 58-68.
- Strange, M., Johnson, J., Showalter, D., & Klein, R. (2012). *Why rural matters 2011-2012: The condition of rural education in the 50 states*. Washington, DC: The Rural School and Community Trust. Retrieved from ERIC database. (ED528634).
- Theobald, P., & Wood, K. (2010). Learning to be rural. In K. A. Schafft & A. Y. Jackson (Eds.), *Rural education for the 21st century* (pp. 17-33). University Park: Pennsylvania State University Press.
- Thomas, T. G. (2005). Teachers' decision-making about place-based education and state testing. *The Rural Educator*, 26(3), 19-24.
- Thurston, L. P., McGrath, D., & Stone, D. (1988). Bringing high tech to the heartland. *Rural Special Education Quarterly*, 9(1), 22-27.
- Trentham, L. L., & Schaer, B. B. (1985). Rural and urban teachers: Differences in attitudes and self-concepts. *Research in Rural Education*, 3(1), 3-5.
- Yeo, F. (1998). Thoughts on rural education. *Educational Foundations*, 12, 31-44.
- Woofer, T. J. (1917). *Teaching in rural schools*. Boston, MA: Houghton-Mifflin.
- Westling, D. L., & Whitten, T. M. (1996). Rural special education teachers' plans to continue or leave their teaching positions. *Exceptional Children*, 62(4), 319-335.
- Zost, G. C. (2010). An examination of resiliency in rural special educators. *The Rural Educator*, 31(2), 10-14.

Appendix A: Sample of Initial Articles and Coding

Year	Authors	Meets Criteria	Participants	Methods	Notes from Initial Reading
1988 (reprinted in 2010)	Thurston, McGrath, & Stone	Yes	17 teachers	Qualitative interviews—The methods section described the structure of the program for teaching about technology but did not describe data collected and how it was analyzed. Methods are discussed in Findings: interviewed students in teachers' classrooms.	Participation in the project widened the vision of rural children. Rural teachers can, with training in which the content and delivery are specifically for rural settings, promote and encourage interest and utilization of technology in their rural classrooms.
1993	Sparks & Wayman	Yes	70 physical education teachers. 26 were urban, from Detroit, Michigan (Black, Hispanic, White); 44 were rural (White)	Quantitative Survey—Multicultural Physical Education Instrument survey sent to 150 teachers in the two sites. Analyzed using SPSS.	Urban teachers had a better understanding of designing curriculum that drew on cultural diversity; rural teachers had a greater appreciation of cultural diverse traditions and customs. Rural teachers appreciated the importance of instruction that involved students interacting across cultural groups. The urban teachers were diverse in racial identity, but the rural teachers were not.
1994	Baird, Prather, Finson, & Oliver	Yes	Rural and non-rural science teachers in eight states	Quantitative survey (100-item) sent to 6800 teachers, and 2414 were returned. Focused on secondary teachers—1258 teachers; 574 = rural; and 684 = non-rural.	Researchers sought to identify the challenges experienced by rural science teachers. They struggled with how to define “rural” and opted to have the teachers self-identify as rural, urban, suburban, etc.
1996	Barrow & Thompson	Yes	Six rural secondary science teachers	AIP survey of physics teachers to see what physics content the teachers felt most comfortable teaching. Development of virtual science labs, survey on the implementation of these labs. Unclear description of analysis of data.	Rural science teachers are often teaching out of their field. Small rural schools are less likely to offer physics than urban/suburban schools. When physics is taught in a rural school it is usually alternated with chemistry.
1996	Westling & Whitten	Yes	158 rural special education teachers	Quantitative, questionnaire	Teachers who intended to stay in their current position were frustrated, reported a lack of support, little help in solving problems. The “not stay” group reported similarly.

Appendix A (continued)

Year	Authors	Meets Criteria	Participants	Methods	Notes from Initial Reading
1997	McKinney, Fry, & Pruitt	Yes	148 rural elementary teachers (64% return rate) from 10 rural elementary schools	Analyzed ELA textbooks for multicultural literature; sent a survey to rural teachers in Oklahoma.	Rural teachers have little knowledge of and use for multicultural literature.
2001	Scalander, Eigenberger, Peterson, Shellady, & Prater	No, program description rather than research	Not a research study	Not a research study	This manuscript reports information concerning three programs that are focused on recruiting diverse special education teachers to rural schools/communities.
2005	Harris, Holdman, Clark, & Harris	Yes	First-year rural and non-rural teachers—97 participants	Mixed Methods- A 3 year goal action plan; final Evaluation report; final evaluation from mentor teacher. Quantified action plans based on Project Launch Framework.	This manuscript describes the successes of Project Launch for the Rural, as compared to the non-rural, participants as indicated by four factors: accomplishment of action plan goals; confidence in the strength of their first-year teaching performance; profiles of self-assess teaching strengths; and retention in teaching.
2005	Thomas	Yes	Four secondary teachers	Qualitative—ethnographic interviews, case study, cross-case analysis.	Teachers were required to teach faster and cover more content. Became more reflective on their teaching in the sense that they thought more about how their instruction met the standards. Tried to connect to local concerns but did not see preservation of local heritage as part of their concern.
2006	Aguilar & Rivero	No, no distinguishable methods section	Rural teachers participating in a supported literacy professional development program.	No clear methods. Wrote information shared in blog entries. No distinguishable methods section.	Ruralness poses a challenge for teachers' professional development. Teachers in rural schools are geographically isolated. Blogs help teachers stay connected throughout the year, in between summer professional learning experiences. They address issues of time, isolation, and lack of resources (not sure how) in rural teachers' professional learning.

Appendix A (continued)

Year	Authors	Meets Criteria	Participants	Methods	Notes from Initial Reading
2008	O'Neal, Ringler, & Rodriguez	Yes	24 elementary teachers	Mixed methods—quantitative surveys and qualitative interviews. Surveyed teachers on perceptions of preparation to teach ELLs and did a focus group interview.	ELL are a growing population in rural areas, particularly in the southeastern US. Teachers did not feel prepared to meet the needs of their students. Yet, because they focused on relationships with students, students felt supported by their teachers and were making academic gains.
2006	Todd & Agnello	No, it examined pre-service teachers, not in-service	Eight pre-service teachers	No clear methods, but qualitative data were collected. Data included observations and reflections of pre-service teachers; field notes. Student essays and lesson plans.	The expectations of pre-service teachers revealed a lack of knowledge of rural community culture. Through the experience they learned to plan lessons using place-based resources.
2010	Burton & Johnson	Yes	Two novice rural teachers	Qualitative—life history; portraiture; ethnography	Interviewed and studied two rural teachers to create portraits of their experiences and explore emerging themes.

Appendix B: Mapping Storylines with Final Articles that Met All Criteria

Year, Author(s)	Isolation (19 + 1 for Teachers of Color in Rural Areas)	Different (19)	Professional Credentials/ Knowledge (11)	Resistant to Change (15)	Outlier (1)
1. 1973, Pibal	X				
2. 1985, Gilbert				X	
3. 1985, Trentham & Schaer		X			
4. 1986, Kleinfield & McDiarmid	X				
5. 1987, Matthes & Carlson	X	X			
6. 1988, McCracken & Miller		X			
7. 1988/2010, Thurston, McGrath, & Stone				X	
8. 1989, Reiff & Anderson		X			
9. 1992, Borchers, Shroyer, & Enochs			X	X	
10. 1992, Carlsen & Monk		X	X		
11. 1993, Sparks & Wayman		X		X	
12. 1994, Baird, Prather, Finson, & Oliver	X		X		
13. 1996, Barrow & Thompson			X		
14. 1996, Shroyer & Borchers				X	
15. 1996, Westling & Whitten	X				
16. 1997, Espinosa, Thornburg, & Mathews		X			
17. 1997, McKinney, Fry, & Pruitt		X	X	X	
18. 1998, Norris				X	
19. 1998, Porter		X			
20. 1999, Abel & Sewell,		X			
21. 1999, Bryant, Dean, Elrod, & Blackburn			X		
22. 1999, Martin & Yin		X			
23. 1999, Pillai				X	
24. 2000, Cegelka & Alvarado	X				

Appendix B (continued)

Year, Author(s)	Isolation (19 + 1 for Teachers of Color in Rural Areas)	Different (19)	Professional Credentials/ Knowledge (11)	Resistant to Change (15)	Outlier (1)
25. 2001, Lewis, Ketter, & Fabos				X	
26. 2003, Scribner	X	X			
27. 2005, Harris, Holdman, & Harris	X	X			
28. 2005, Thomas					X
29. 2005, Short & Martin	X				
30. 2006, Castaneda, Kambutu, & Rios	X			X	
31. 2006, Rakes, Fields, & Cox				X	
32. 2007, Hall	X				
33. 2007, Harmon, Gordanier, Henry, & George	X				
34. 2007, Malloy & Allen	X				
35. 2007, McCarthy & Duke	X			X	
36. 2008, Blinn-Pike		X			
37. 2008, Hardre		X	X		
38. 2008, Hardre, & Sullivan		X	X		
39. 2008, Hardré, Sullivan, & Roberts	X	X			
40. 2008, Huysman		X			
41. 2008, Ortlieb & Cheek		X			
42. 2008, O'Neal, Ringler, & Rodriguez			X		
43. 2009, Cady & Rearden	X			X	
44. 2009, Powell, Higgins, Aran, & Freed	X				
45. 2010, Bertram	X		X		
46. 2010, Burton & Johnson	X			X	
47. 2010, Polidore, Edmonson, & Slate	X (Teachers of Color were isolated)			X	
48. 2010, Zost			X		