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**Persistent rural educators:
An extensive literature review of factors which influence rural teacher retention**

By

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Abstract

Student achievement is impacted by having a quality teacher more than any other factor (Terada, 2019). Students deserve to have qualified and highly-effective teachers no matter where they live—however, rural schools tend to employ less-qualified educators than do urban and suburban schools (Monk, 2007). Rates of teacher attrition, which also impact student achievement (Ronfeldt et al., 2013), are not equal across the country, and rural schools are one of several areas experiencing the greatest amount of teacher turnover, exacerbating the problem (Ingersoll et al., 2021). Using *teacher turnover* (Nguyen & Springer, 2021) and *a critical pedagogy of place* (Gruenewald, 2003) as theoretical frameworks, this literature review sought to understand current factors which influence rural teacher retention. The research found that School, Personal, and Place-based Correlates have a great impact on rural teacher retention, and that understanding the unique benefits and challenges of each rural place is vital. By understanding which factors lead to increased rural teacher persistence and knowing which specific structures might better support rural educators, teacher educators will be able to prepare and retain high-quality rural educators, providing more equitable education for students in rural schools.

Keywords: Rural teachers, rural schools, teacher retention, teacher attrition

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Chapter 1

Introduction and Statement of the Problem

As the need for teachers in rural areas rises, teacher educators need to examine their own programs and explore how they are supporting both preservice and inservice teachers to be successful rural educators. This often neglected area of research and instructional support needs more attention and support from those in teacher education to ensure that all children in various geographic locations are provided fair and just educational experiences. (Burton & Johnson, 2010, p. 384)

Introduction

Every student deserves to have access to a great education no matter where they live. Currently, however, the location in which a student lives is a determining factor of the quality of education they receive, with zip codes “effectively segregating students by income and race” (Palochko et al., 2019, n.p.). While poverty is generally attributed to urban areas, “poverty in rural America actually exists at higher rates, is felt at deeper levels, and is more persistent than in metropolitan areas” (Lavalley, 2018, p. 2). Poor working conditions in the nation’s highest-poverty schools result in increased teacher attrition (Simon & Johnson, 2015) because teachers do not feel prepared to support students who are experiencing poverty and related challenges (Brenner et al., 2021). Students in rural areas, where one in six students lives below the poverty line (Showalter et al., 2019), deserve persistent educators who are prepared to teach in the unique settings of rural communities (Azano & Stewart, 2015). Rural education cannot continue to perpetuate a cycle of poverty and lack of educational opportunity by failing to retain high-quality educators (Lavalley, 2018).

Goldhaber et al. (2015) found that quality teachers are inequitably distributed across advantaged and disadvantaged groups of students. Ensuring the success of rural educators and

students is vital in working toward social justice and equity: 8.9 million, or one in six, children in the U.S. attend a rural school (Azano et al., 2021a). Rural schools tend to employ less experienced and less qualified educators than do urban and suburban schools (Monk, 2007), with teachers in these areas having “comparatively low educational attainment” (p. 159). We must ensure that rural students are provided with high-quality educators, who are prepared for the benefits and challenges of teaching in rural settings, and who stay in rural teaching positions.

The Impact of Teacher Quality and Attrition

The quality of a teacher matters: “[compared] to any other aspect of schooling, teachers have the greatest impact on student achievement” (Terada, 2019, n.p.). In the same vein, student achievement is negatively impacted by teacher attrition (Ronfeldt et al., 2013). When teachers are continually exiting the field, classrooms repeatedly have new teachers year after year. Student learning and achievement suffers as a result—“unqualified teachers produce unqualified students, who in turn become unqualified teachers” (Changying, 2007, p. 9) creating a cyclical problem. The harm of teacher attrition reaches further than one might imagine:

[The impact] can reach beyond just those students of teachers who left or of those that replaced them... [it is possible] that turnover negatively affects collegiality or relational trust among faculty; or perhaps turnover results in loss of institutional knowledge among faculty that is critical for supporting student learning. (Ronfeldt et al., 2013, p. 32).

Understanding that high teacher satisfaction is correlated with student success (Ulferts, 2016), figuring out how to better support and retain rural educators could solve the high rates of teacher attrition in these settings. Reduced attrition would then have a positive impact on student learning, providing a more equitable education for a large number of students.

Teacher Shortages

Recent studies indicate that more than 44-percent of new teachers are leaving the teaching field within five years (Ingersoll et al., 2021). The most often-cited motive for teachers leaving the field is dissatisfaction, due to reasons such as “salaries, classroom resources, student misbehavior, accountability, opportunities for development, input into decision making, and school leadership” (p. 25). Schools throughout the country are experiencing teacher shortages, defined as having an inadequate supply of teachers to fill vacant positions. According to the U.S. Department of Education, every state in the United States (except New Hampshire) contains several teacher shortage areas for the 2021-2023 school years (U.S. Department of Education, 2022). However, attrition across the country is not equal: “high-poverty, high-minority, urban, and rural public schools have among the highest rates of turnover” (Ingersoll et al., 2021, p. 22).

Teacher Recruitment

In addition to the issues of rural teacher attrition, teachers are hesitant to enter positions in rural settings in the first place for fear of social isolation, lack of opportunities for professional development and growth, and entering a tight-knit rural community that they were not raised in (Hudson & Hudson, 2008). These fears of perceived challenges can be actualized during service, creating complex challenges which might cause dissatisfaction:

Unlike teachers in suburban or urban schools who can leave their job at work, teachers in small rural school districts must continually socialize and interact with colleagues in the community. Relationships among families, parents, couples, children, friends, and rivals cannot be left outside the school doors. The result is a complex dance of perceptions and realities, long-standing animosities and alliances. These complexities are what teachers most enjoy about teaching in a

rural district but are, at the same time, the source of many frustrations. (Huysman, 2008, p. 34)

Not being able to recruit high-quality teachers into rural education impacts the quality of teachers available to rural students (Monk, 2007).

Teacher Preparation

Some of the dissatisfaction which causes new rural teachers to leave (Ingersoll et al., 2021) might be due to the fact that preservice teachers (i.e., individuals who are working to enter the teaching profession) are rarely prepared for rural teaching positions during practicum teaching experiences. In urban and suburban practicum settings, preservice teachers are not being exposed to the novelty of rural settings and are rarely purposefully prepared to take on rural teaching positions (Blanks et al., 2013; Eppley, 2015; Hudson & Hudson, 2008; Moffa & McHenry-Sorber, 2018; Monk, 2007).

There is a great deal of contrast between more urban/suburban school settings and rural schools. New teachers sometimes enter rural teaching positions unaware of the unique challenges that rural teaching can present due to the lack of targeted preservice preparation. For example, more “urban” and “suburban” schools generally consist of classrooms of just one grade level, whereas in a rural setting, teachers can find themselves in charge of multiple grade levels in one classroom (i.e., multigrade) and in some cases are the sole teacher in the entire school (Azano et al., 2021a). This results in a need to learn how to manage time and present lessons through rural-specific preparation (Kartal et al., 2017). Additionally, teachers in urban and suburban settings might also have access to outside support from professionals who hold specialized certifications and are able to support students who need extra help (Berry, 2012). Azano and Stewart (2015) link together the problem of recruitment, preparation, and retention of rural educators:

Efforts to recruit teachers to work in rural schools are futile if those teachers are not adequately prepared to provide instruction that meets the needs of the students. Staffing classrooms with ill-prepared teachers is detrimental to students *and* novice teachers. Moreover, these teachers will have to be replaced, exacerbating the problem of staffing schools by creating a revolving door at the head of the classroom. (p. 1, emphasis in original)

Simply put, by recruiting inadequately prepared teachers to undertake rural teaching positions, the problem of retaining highly-qualified educators in these rural places is amplified.

Teacher Retention

Mafora (2013) urges the importance of identifying the correct causes of teacher shortages, arguing that they are often caused by a lack of *retention* of rural teachers, rather than *recruitment*. According to a study from the Learning Policy Institute, “changing attrition would reduce the projected shortages more than any other single factor” (Sutcher et al., 2016, p. 2), and that shortages could essentially be eliminated if attrition were reduced by half. By incorrectly identifying the cause of the problem, a solution will not correctly address the real issue. Taking this into consideration, how could teachers be better supported in these rural positions in order to get them to stay?

Purpose of Research

The purpose of this research is to identify current strategies for retaining and supporting rural educators, and to understand which factors impact rural teacher retention, in order to better understand how to reduce attrition. In order to provide students in rural areas with a high-quality education, teacher attrition must be reduced. Though there is growing research in the area of rural teaching recruitment, “there is a paucity of research on the manner in which the experiences

and perceptions of rural in-service teachers relate to their persistence in rural teaching” (Goodpaster et al., 2018, p. 10). This research seeks to understand what is known in the literature regarding rural teacher persistence.

By understanding why some teachers thrive in rural settings (Brenner et al., 2021)—what supports and structures teachers are offered, and what factors affect their longevity in rural teaching positions—targeted structures and supports can be offered to rural teachers. This research will focus on what strategies retain teachers in rural settings, what factors influence their endurance in rural settings, and will conclude with strategies that can be offered in order to increase rural retention. With increased retention, rural students will benefit from having experienced teachers who are better prepared for the challenges and rewards that rural teaching offers.

Research Questions

This research project is being guided by the following questions: (a) What does the current literature tell us about strategies for supporting and retaining rural teachers? (b) What does the current literature tell us about factors which influence rural teacher persistence?

Procedure

The goal of this literature review was to identify and synthesize sources in order to understand what is currently known about teacher retention and support in rural settings. A process of literature selection and analysis was used to address the research questions in order to determine which strategies are currently being used to retain and support educators, and what factors influence their decisions to stay in rural teaching positions.

Defining Rural

The definition of “rural” is complex—rurality has been defined both qualitatively and quantitatively by researchers (Azano et al., 2021b, p. 14). Some studies use population size, distance from urban centers, and others yet “where physical road distance results in pronounced restricted access to the full range of goods and services and social interaction” (Kline & Walker-Gibbs, 2015, p. 69). The U.S. Census Bureau (2022) defines rural as an area which “encompasses all population, housing, and territory not included within an urban area” (n.p.). Furthermore, rurality can often be understood in terms of cultural-political identity (Dr. Nicholas Crane, personal communication, May 11, 2022), and results in a feeling of belonging to a place one considers rural, making it difficult to define a cut-off based upon population size and/or distance from other places. Given the complexity of finding a standard definition, an exact definition of rural was not used for this research for this reason of its nonstandard definition; research that had been designated by the researchers as rural was considered.

Theoretical Frames

This literature review was guided by two theoretical frameworks: *teacher turnover* (Nguyen, 2021) and *a critical pedagogy of place* (Gruenewald, 2003). Though there is much practical research on teacher turnover, “[there] are few comprehensive conceptual frameworks explaining why teachers stay or go” (Nguyen, 2021, p. 2). The lack of a conceptual framework is in part due to the complexity of understanding teacher retention: “The teacher retention literature indicates that this is a multifaceted issue with many contributing factors” (Hughes, 2012, p. 248). Due to the lack of a uniting framework until recently, this area of study is relatively under-conceptualized and therefore ripe for research. Nguyen and Springer (2021) developed the

teacher turnover framework in order to unite research studies; it identifies personal, school, and external correlates as factors which influence teacher turnover.

However, this teacher turnover conceptual framework does not take into account the importance or unique aspects of *place*, a concept which is vital to understanding rurality. Though the conceptual framework of teacher turnover was used to shape this paper, it might need to be changed or adapted to include this aspect of community and place. With this said, this study also draws ideas from *a critical pedagogy of place* in order to conceptualize rural teacher retention: “[acknowledging] that experience has a geographical context opens the way to admitting critical social and ecological concerns into one’s understanding of place, and the role of places in education” (Gruenewald, 2003, p. 9). A critical pedagogy of place is concerned with reinhabitation, or learning to live well in a place, noting that “acquiring detailed knowledge of a place is certainly an appropriate beginning for those wishing to develop mutually enhancing relationships with their environments” (Gruenewald, 2003, p. 9). Place-based learning, which shares similarities and aspects of constructivism, experiential learning, outdoor education, and more, engages students in their communities through immersive, interdisciplinary, local educational experiences. Through place-based learning, “teachers also learn about the community and exercise their own funds of knowledge to reconsider how they relate (or not) to the rural community in which they work” (Brenner et al., 2021, p.16), contextualizing and changing their own conceptions of rurality through experiences with community and rooted in place.

Teacher turnover and a critical pedagogy of place guided this study first in the generation of search terms: “retention” and “persistence” were used to reflect the framework of teacher turnover, and “rural” was included to reflect the place-based nature of the research. These

frameworks also directed the organization of literature review (which is organized into categories of place, personal correlates, school correlates, and external correlates) and provided a framework for the discussion. Additionally, the recommendations provided in the final chapter are place-based—that is, they take into account the unique geographical features and community dynamics experienced in rural places and how these impact education (Gruenewald, 2003).

Inclusion Criteria

To be included in this literature review, studies had to meet the following criteria, based on the methods of Vaughn et al. (2021):

- Published in a peer-reviewed journal
- Research studies
- Focused on rural teacher support and/or retention strategies, or factors which influence rural teacher persistence
- Published in English
- Published between 2000-2022
- Available in full text
- Related to K-12 teaching

Gathering Literature

I started by exploring several key words within Google Scholar to identify initial works and also searched two other sources —ERIC and *The Rural Educator*. Initial search terms included “rural teacher retention” and “rural teacher persistence,” which are reflective of the study’s theoretical frameworks. These search terms returned several hundred results on Google Scholar. Returned results were considered until there were several (more than five) sources in a row which did not fit the inclusion criteria. ERIC, an online library of educational research, and

The Rural Educator, an academic journal which publishes on matters concerning rural education, were also searched due to their focused publication of educational literature. The initial searches on Google Scholar proved *The Rural Educator* journal to be at the forefront of publishing rural teacher retention and support studies.

As initial sources emerged, relevant reference lists of these sources were cross-checked to further build a base of often-cited, credible literature that fit the inclusion criteria. Literature reviews were not included as this Plan B was only concerned with research studies. However, the reference lists of other literature reviews were considered in order to generate additional relevant articles. Literature reviews that surfaced from these search terms often had a much broader scope than this study (e.g., Reagan et al., 2019); however, looking through their citations produced several additional studies which fit the inclusion criteria. Additionally included are sources which were identified during coursework for a research methodology course. Though these sources were not found through the exact methods described above, they did also surface as results in searches or through reference list cross-checks. These sources which were initially identified through coursework are identified by asterisks in the references section.

The abstracts of articles returned in the searches were read in order to determine if the study fit within the inclusion criteria. The articles which seemed to fit the criteria were then read to determine which retention and support strategies were present, and if these strategies seemed to positively, negatively, or neutrally impact teacher retention or support. In the end, 44 articles were determined to fit the inclusion criteria and were included in the literature review.

International sources were included as part of these 44 sources. While completing initial searches, sources emerged which had been published in Australia (Frid et al., 2008; Handal et al., 2013; Kline & Walker-Gibbs, 2015; Plunkett & Dyson, 2011), Canada (Hellsten et al., 2011),

Eritrea (Belay et al., 2007) , Guatemala (de la Garza, 2016), Ghana (Cobold, 2007; Opoku et al., 2020), Malaysia (Ab Aziz et al., 2021); South Africa (Mafora, 2013), Turkey (Kartal et al., 2017); and Zimbabwe (Gomba, 2015). Rural education is a major concern in these areas and much formative research on the subject has taken place and been published internationally as a result. These international sources provided insight into several factors and structures which are not yet focused upon in the domestic literature. The strategies and structures from international studies will likely be applicable outside of the United States as well—challenges faced by rural teachers are similar no matter where they are located geographically. While some rural school districts might be considered much more “rural” (e.g., no running water, no electricity, in Ghana; see Opoku et al., 2020), rural retention is a problem worldwide, and thus these findings may be used by professionals in rural settings across the globe.

Sorting Literature

While reading the gathered sources, literature was filed electronically on Zotero. Factors which influence retention were excerpted from the research paper and included in an extensive Excel table. Headings of this table included: *search term, citation, link, retention/support strategy/factor, positive/negative/neutral effect, related quotes, notes, content area, theoretical framework, design, and exclusion criteria.*

The coding of this literature involved identifying factors which influenced retention, excerpting them into the Excel table, and assigning them a word or short phrase (i.e., descriptive coding [Saldaña, 2012]). These summarized factors were then sorted into themes based upon the theoretical frameworks: Nguyen and Springer (2021) Personal, School, and External Correlates (from teacher turnover), and Gruenewald (2003) Place-based Correlates (based on a critical pedagogy of place). Place-based Correlates was a category created by this researcher in order to

address place-specific factors which were not included under the other Correlate groups. Within these groups, findings were sorted based upon the nested factors determined by Nguyen and Springer (2021; see Figure 1) or by their similarity as determined by the researcher in the Place-based Correlate group. Factors were coded as “positive” if they increased teacher retention or job satisfaction, “negative” if they had detrimental impacts, or “neutral” if they did not have an effect (i.e., evaluation coding, [Saldaña, 2012]). Factors which did not have an obvious impact or had mixed impacts were coded as “mixed.”

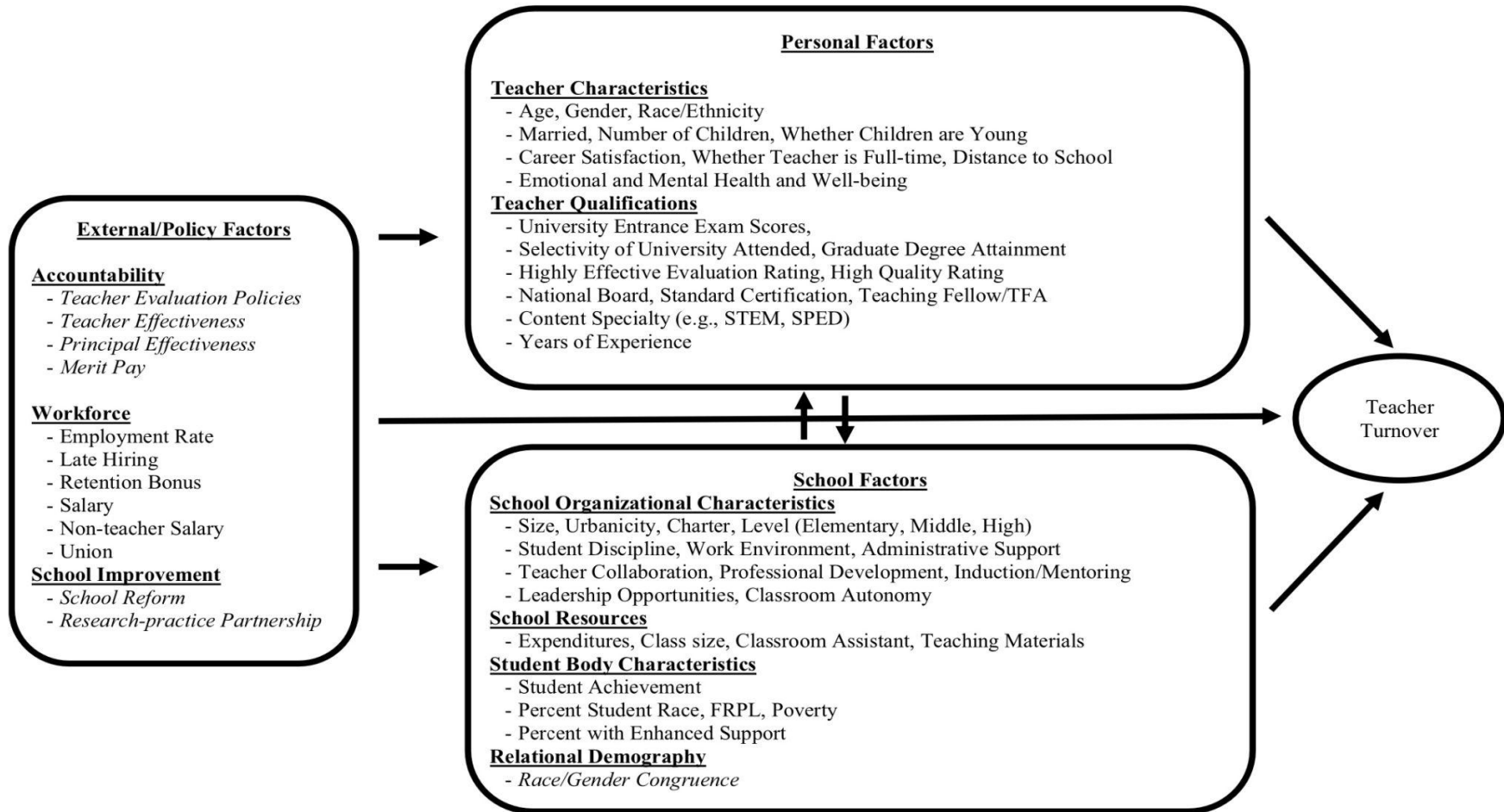
To give an example of the coding, participants in Gomba’s (2015) study “believed that the administration would help them resolve classroom problems in times of distress” (p. 62); this was identified by the participants as a factor that made teachers remain in a position for a long time. This excerpt was coded as “administrative support” which fits under the subcategory School Organizational Characteristics of School Correlates. Because it positively impacted teacher retention, it was coded as “positive.” See Appendix A for an overview of sources which were included within each Correlate group and their subcategories.

Exclusion of Literature

Given that this literature review concerned the retention of in-service rural teachers, papers which did not have to do directly with strategies for retaining and supporting rural educators were not included. While understanding the preparation and recruitment of preservice teachers in rural settings is also important, understanding how to keep teachers who have already taken these positions was the focus. Literature regarding preservice preparation and targeted recruitment was considered, but only if it was from the lens of how these efforts have supported or increased rural teacher retention.

FIGURE 1

Conceptual framework of teacher turnover (from Nguyen & Springer, 2021, Figure 2, p. 8)



A great number of articles were excluded because they were not rural-specific. Finding articles which proved to be about retention in support in rural settings proved to be a challenge; many articles were about teacher retention and support broadly or in non-rural settings (e.g., Minarik et al., 2003; Tran & Smith, 2019). Several reports and theses/dissertations were also excluded because they had not been peer-reviewed (e.g., McClure & Reeves, 2004; Morris 2019; Roberts, 2005; Watts, 2016). Several articles which claimed to be about “recruitment and retention” in their titles or abstracts, or were about solving staffing issues in rural schools, considered recruitment but not retention once read fully (e.g., Ávalos & Valenzuela, 2016; Azano & Stewart, 2016; Manuel, 2003). The disproportionate number of studies which focus on recruitment versus retention will be included in the discussion.

Road Map

The remainder of this paper consists of the literature review (Chapter 2) and a conclusion containing the findings and discussion (Chapter 3). The literature review is sorted by the broad thematic groupings. The findings and discussion chapter contains recommendations for the inclusion or exclusion of certain strategies and supports based on what may be possible for different schools and programs to offer.

Chapter 2

Literature Review

The organization of this literature review is drawn from the research's two theoretical frameworks: *teacher turnover* (Nguyen & Springer, 2021) and *a critical pedagogy of place* (Gruenewald, 2003). Findings are organized by School, Personal, and External Correlates and their subcategories (Nguyen & Springer, 2021); they appear in this order due to the number of findings within each correlate. These correlates and subcategories serve as the framework for the literature review findings to the extent possible. An additional Place-based Correlates category has been added to frame the findings which do not fit within the Personal, School, and External Correlates identified by Nguyen and Springer (2021). Appendix A provides an overview of the four correlates and their subcategories, along with the citations which support the findings under each.

School Correlates

This section includes four subcategories: school organizational characteristics, school resources, student body characteristics, and relational demography. School Correlates “[encompass] both the physical conditions and the perceived social dynamics of the workplace” (Nguyen & Springer, 2021, p. 10).

School Organizational Characteristics

This subcategory includes factors such as administrative support, collaborative leadership, autonomy, professional development, induction and mentoring, and student discipline. This subcategory had a substantial number of findings concerning opportunities for collaboration and support in several forms.

Having the support of administrators specifically was found to positively impact rural teacher retention (Davis, 2002; Gomba, 2015; Goodpaster et al., 2018; Hargreaves et al., 2015; Malloy & Allen, 2007; Opoku et al., 2020; Tran & Dou, 2019; Tran et al., 2020; Ulferts, 2016; Zost, 2010). Tran and Dou (2019) found that administrator support was the “most important factor for teacher employment” (p. 136). When teachers had an open door of communication, and felt they were able to regularly contact administrators to discuss experiences and ideas, they were more likely to work in their positions long-term (Goodpaster et al., 2018; Tran & Dou, 2019). Teacher retention was positively impacted when teachers felt their voices and ideas were valued by administrators (Malloy & Allen, 2007; Okraski & Madison, 2020; Tran & Dou, 2019) and when administrators would help them resolve issues in their classrooms (Gomba, 2015). Teachers who viewed their school’s administrators and leaders as strong were more likely to stay in their positions (Kaden et al., 2016; Lowe, 2006; Okraski & Madison, 2020). Mafora (2013) discussed the power of principals to create a culture at their school which encourages teachers to stay—without intentionally having created a culture of retention, teachers were more likely to leave.

When administrators seemed resistant to changes proposed by teachers, teacher retention was negatively impacted (Goodpaster et al., 2018), and negative impacts also result when teachers feel there is a “power of one” in leadership, i.e., when one person has too much power and sway and does not have to take the opinions of others into consideration (Hodges & Tippins, 2009). Additionally, when administrators did not make an effort to keep teachers who wanted to resign, and allowed them to leave with no real attempt to get them to stay, teacher retention suffered (Mafora, 2013). Teachers want to remain in positions where they are valued—when

they are let go easily, and administrators do not put forth the effort into trying to get them to stay, the feeling of being valued decreases.

Similar to administrator support, feeling supported by coworkers was another factor that emerged in the literature (Adams & Woods, 2015; Belay et al., 2007; Handal et al., 2013; Harris, 2001; Opoku et al., 2020; Tran et al., 2020; Zost, 2010). In one study, support for special education teachers by other general education teachers in their school was found to positively impact rural special education teacher retention (Berry, 2012).

Teacher retention was positively impacted when teachers felt they were respected, appreciated, and recognized by their colleagues, administrators, and broader community members (Belay et al., 2007; Burton & Johnson, 2010; Davis, 2002; Harris, 2001; Opoku et al., 2020; Ulferts, 2016). Conversely, a lack of recognition had a negative impact on retention (Huysman, 2008). One study noted the treatment of male versus female teachers: male teachers were seen as more highly respected (Belay et al., 2007). This difference in treatment of teachers depending on gender had a negative impact on teacher retention.

Connection between teachers and parents was also beneficial for rural teacher retention (Goodpaster et al., 2018; Kline & Walker-Gibbs, 2015). When parents were involved in helping in the classroom, and/or were invested in making sure their student succeeded, teachers felt supported and were likely to remain in their positions (Belay et al., 2007; Goodpaster et al., 2018). When teachers felt that there was low participation from parents, teacher retention was negatively impacted (Belay et al., 2007). Additionally, teacher retention was negatively impacted when parents were unable to find time to attend conferences (Burton & Johnson, 2010).

Opportunities for in-service professional development were found to positively impact teacher retention (Beesley et al., 2010; Belay et al., 2007; Burton & Johnson, 2010; Cobold,

2007; Davis, 2002; Harris, 2001; Goodpaster et al., 2018; Lowe, 2006; Malloy & Allen, 2007; Okraski & Madison, 2020; Opoku et al., 2020; Ulferts, 2016; Wood et al., 2013). Similarly, using technology in professional development positively impacted retention (Harris, 2001; Wood et al., 2013). In-service rural teachers often perceived a sense of isolation, but offering “professional development that focuses on intercultural competence and teaching culture in a meaningful way could be helpful in addressing the challenges that come with being the only, or one of the only, Latinx adults in a rural school” (Okraski & Madison, 2020, n.p.). Likewise, a lack of in-service professional development was found to negatively impact teacher retention (Frid et al., 2008; Handal et al., 2013; Hodges & Tippins, 2009).

Teacher retention was positively impacted by strong recruitment programs which had been carefully planned and budgeted (Lowe, 2006). Using current faculty and staff as liaisons for recruitment by “sending them to meetings, conferences, teacher fairs and other activities where they may tell first the great story of their school” was also found to increase attraction and retention to rural positions (Lowe, 2006, p. 30). Recruitment was only seen as negatively impacting retention “either because it was not effective or did not exist” (Davis, 2002, p. 47).

Targeted induction programs for new rural teachers were reported as beneficial in many studies (Beesley et al., 2010; Cobold, 2007; Harris et al., 2005; Lowe, 2006). Cobold (2007) recommended that “[the] first two years of the beginning teacher’s career should be a period of mandatory induction” in order to ensure that teachers will be successful in rural positions (p. 14). One study noted mixed impacts on retention due to induction programs due to how well-structured and helpful these programs were (Wood et al., 2013). The lack of a formal induction program negatively impacted teacher retention in one study (Mafora, 2013).

Strong mentoring programs were found to increase teacher retention (de la Garza, 2016; Harris, 2001; Hellsten et al., 2011; Lowe, 2006; Tran & Dou, 2019; Ulferts, 2016; Wood et al., 2013). Several structures for in-service mentorship were mentioned by different studies. For example, participants in Tran and Dou's (2019) study suggested that "mid-career teachers could serve as mentors for beginning teachers, and veteran teachers could be a sounding board to discuss strategies with the mentor to help support and retain them" (p. 141) in order to create a structure which would be helpful and doable for mentors and mentees. Hellsten and colleagues (2011) mentioned the role mentors could hold in reducing professional isolation, while Wood et al. (2013) briefly mentioned the positive impact of using technology for mentoring.

Receiving insufficient mentoring, or having a lack of mentoring, negatively impacted teacher retention (Goodpaster et al., 2018; Harris, 2001; Hodges & Tippins, 2009; Mafora, 2013). Some mentoring programs, depending on how sufficient they are felt to be, had mixed impacts on retention (Wood et al., 2013). In order to ensure sufficient mentoring, Tran and Dou (2019) suggested "if the mentor's mentorship role is a closely related extension of his/her current duties, this increases the likelihood the mentor would be able to adequately serve a support role for new teachers" (p. 142).

Having structures in place which allow for collegial collaboration positively impacted teacher retention (Adams & Woods, 2015; Belay et al., 2007; Burton & Johnson, 2010; de la Garza, 2016; Malloy & Allen, 2007; Okraski & Madison, 2020; Tran & Dou, 2019; Tran et al., 2020), though Huysman (2008) noted that coworkers did not impact job satisfaction in their study. One study participant noted that "camaraderie... is more close-knit and connected than that of the big cities" (Tran & Dou, 2019, p. 143). Not only do these structures lead to increased camaraderie and teachers wanting to stay in these positions, but they also make them better

educators—“Team teaching, peer evaluation, reflective conversations related to best practices were a few of the aspects of collaboration that enable teachers to develop the capacity to become more effective” (Malloy & Allen, 2007, p. 23). Cross-district collaboration opportunities and working/networking with teachers who are in different schools were also seen as beneficial for teacher retention (Adams & Words, 2015; Burton & Johnson, 2010; Harris, 2001; Lowe, 2006).

Similarly, having matching expectations across teaching teams and schools was found to be effective in increasing teacher retention (Malloy & Allen, 2007). The authors found that when teachers held themselves to a high standard, worked together to set student achievement goals, and received frequent feedback from their colleagues and administrators, that teacher resiliency increased (p. 25). School culture had a mixed impact on teacher retention based upon the teacher’s perception of the culture (Mafora, 2013); having a positive school culture and confidence in one’s school positively impacted teacher retention (Harris, 2001; Wood et al., 2013).

Teachers in rural positions experienced an increased sense of autonomy in the implementation of lessons (Tran & Dou, 2019; Tran et al., 2020; Ulferts, 2016). This autonomy was found to increase teacher retention; teachers appreciated the flexibility and ability to target and differentiate materials based on individual students, and teachers who were innately adaptable and flexible tended to stay in rural positions longer (Zost, 2010). Teachers who felt that they had an opportunity to lead were also more likely to stay in their positions (Malloy & Allen, 2007; Tran & Dou, 2019). Ensuring that teacher seniority did not preclude teachers of any experience level to lead and share ideas was important for continued teacher retention (Malloy & Allen, 2007).

School Resources

Having access to a sufficient number of materials and resources were found across the literature to increase teacher retention (Belay et al., 2007; Davis, 2002; Goodpaster et al., 2018; Hellsten et al., 2011; Kaden et al., 2016; Kartal et al., 2017; Tran & Dou, 2019; Ulferts, 2016). Technological resources were specifically mentioned by one study to be a type of resource which positively impacted teacher retention (Tran & Dou, 2019). Other studies found that access to materials and resources was found to be neutral to slightly positive (Davis, 2002), and to have a mixed impact (Kaden et al., 2016). From a deficit-based lens, having a lack of access to resources negatively impacted teacher retention (Belay et al., 2007; Handal et al., 2013; Harris, 2001; Hellsten et al., 2011; Kartal et al., 2017), and a “lack of access to university resources” was found to specifically negatively impact teacher retention (Goodpaster et al., 2018, Table 2, p. 14; see also Harris, 2001). Beesley and colleagues (2010) and Harris (2001) found that teachers who understood how to maximize funding opportunities and take advantage of this funding in order to gain additional classroom resources and materials were more likely to stay in their positions.

Similarly, having nice, up-to-date facilities also positively impacted teacher retention (Davis, 2002; Kaden et al., 2016; Opoku et al., 2020; Ulferts, 2016). In the same vein, classrooms which were deemed to be in poor physical condition negatively impacted teacher retention (Kartal et al., 2017).

Rural schools tend to have smaller class sizes than do urban and suburban schools (Monk, 2007). Having a small class size was a factor which positively impacted teacher retention according to a number of studies (Davis, 2002; Tran & Dou, 2019; Tran et al., 2020; Ulferts, 2016). However, due to small class sizes, one study mentioned the possibility of school

downsizing, which would result in job loss (Handal et al., 2013). This possible downsizing resulted in feelings of job insecurity and therefore negatively impacted teacher retention.

Student Body Characteristics

Well-behaved students were found to have positive (Opoku et al., 2020) and mixed impacts (Kaden et al., 2016) on teacher retention. Kaden et al. (2016) determined this mixed impact “may be an indication of tensions” between students and teachers (p. 141). Having to teach the children of other teachers and administrators resulted in stress for rural teachers (Harris, 2001). Kartal et al. (2017) found that teachers who struggle with classroom management were also more likely to leave their position. Positive personal interactions with students made teaching a more positive experience, and therefore made teachers want to remain in those positions (Ab Aziz et al., 2021; Davis, 2002; Goodpaster et al., 2018; Tran & Dou, 2019; Tran et al., 2020; Ulferts, 2016). Similarly, in a study in rural Eritrea, when new teachers felt nervous about interacting with busy students, there was a negative impact on teacher retention (Belay et al., 2007). High student achievement is also correlated with teacher retention—when student achievement suffers, teachers are less likely to feel motivated to stay in their positions (Ab Aziz et al., 2021; Goodpaster et al., 2018; Kartal et al., 2017).

Relational Demography

Nguyen and Springer (2021) noted the lack of relational demography studies in earlier frameworks which informed the creation of the teacher turnover conceptual framework. Seemingly emphasizing the lack of studies on this topic, only one source emerged in this literature review regarding the factor “race congruence.” Okraski and Madison (2020) found that Latine world language teachers in the rural south were less likely to persist in their positions due to the nature of their racial identity, given that it was dissimilar to the students they were

teaching. Because of tension due to racist beliefs, a lack of similarity between the identities of teachers and students has an impact on teacher retention.

Personal Correlates

In this group are the subcategories of teacher characteristics (including age, gender, marital status, career satisfaction, and mental and emotional wellbeing) and teacher qualifications (including preparation, experience, efficacy, and degrees/certifications) (Nguyen & Springer, 2021).

Teacher Characteristics

Job satisfaction is an important factor to consider in teacher retention (Huysman, 2008). General job satisfaction negatively impacted teachers who did not grow up in rural areas more than it impacts “homegrown” teachers (Huysman, 2008, p. 34). Teachers who view their position as meaningful were more likely to stay in their position (Belay et al., 2007; Huysman, 2008; Okraski & Madison, 2020). When teachers felt a sense of responsibility, and felt that they were agents of change and cultural brokers, they understood the importance of their position and wanted to continue (Okraski & Madison, 2020). For example, Latine educators in the rural South felt especially connected with the small populations of Latine students and parents in their communities and found a strong sense of community and meaning in their position (Okraski & Madison, 2020, n.p.).

Teachers who found intrinsic satisfaction as an educator were more likely to stay in their positions (Ab Aziz et al., 2021; Huysman, 2008). Ab Aziz and colleagues (2021) found that urban-originated teachers who were passionate and enthusiastic about teaching, found inspiration from their parents, and felt morally obligated to serve rural students remained in rural positions longer. Several studies cited feelings of job security as positively impacting rural teacher

retention (Gomba, 2015; Goodpaster et al., 2018; Opoku et al., 2020; Ulferts, 2016); a lack of job security was cited as an issue in rural teacher retention (Frid et al., 2008). Because of the number of open positions, and low competition in order to get and keep the positions, teachers felt that they could and wanted to stay in these jobs. However, the emotional labor of being a rural teacher in a divisive setting can negatively impact teacher retention (Okraski & Madison, 2020). Latine world language educators in the rural South discussed feelings of emotional burnout from having to interact with racist community members and feeling like outsiders who did not belong (Okraski & Madison, 2020).

Gomba (2015) interviewed several teachers in rural Ghana to understand their perceptions of rural teaching and retention. Several negative feelings and predicaments emerged in this study including feelings of being stuck, being unmarketable for other jobs due to age, and fearing the unknown were the teachers to leave their positions. Ulferts (2016) also discussed that teacher retention increased because teachers did not have any offers in higher-paying districts. Though these ideas are negative, they did positively impact teacher retention—teachers stayed in their positions because of these fears and feelings that there were no other options.

Feeling a lack of pride in one's rural community, and feeling hopeless about the community and its prospects, also negatively impact retention (Hodges & Tippins, 2009). Tran et al. (2020) found a correlation between a lack of teacher retention and feeling that rural positions did not offer much economic opportunity, as well as feelings of cultural isolation due to differences in the teachers' backgrounds compared to students. Feelings of geographic and social isolation were cited as having mixed impacts on teacher retention (Hellsten et al., 2011; Wood et al., 2013; Zost, 2010). Additionally, economic hardship, malnutrition, and a lack of government assistance were cited to negatively impact Guatemalan teacher retention (de la Garza, 2016).

In another international study, Mafora (2013) discusses negative feelings in principals in South Africa: “Principals cannot address the teacher retention problem effectively when they are hopeless about the situation and perceive themselves as ineffective” (p. 237). Principals can negatively impact teacher retention when they feel negatively about their own performance.

Due to the remote setting of many rural schools, social and professional isolation is felt by many rural teachers (Beesley et al., 2010; Burton & Johnson, 2010; Handal et al., 2013; Hellsten et al., 2011). Sometimes the only teacher of a grade level, let alone an entire school, having set support systems for rural teachers from novice to expert is important when considering the ability to retain teachers.

Romantic relationships were found to be a factor in the longevity of rural teachers (Davis, 2002; Handal et al., 2013; Kaden et al., 2016; Tran & Dou, 2019; Ulferts, 2016; Wood et al., 2013). Because rural communities tend to be small, finding a romantic partner, and employment for a partner, can be a challenge (Handal et al., 2013). Moving to a rural setting with an established romantic partner, however, was found to have a positive effect on the persistence of teachers in these settings (Tran & Dou, 2019); when that romantic partner was employed in the rural area, it had positive impact on teacher retention (Davis, 2002; Ulferts, 2016). Friendships are also seen as a factor which influences teacher retention—a lack of friendships has a negative impact on retention, while strong friendships increase retention (Kaden et al., 2016; Wood et al., 2013).

Teacher Qualifications

Rural-specific education programs and pedagogical preparation were seen to increase teacher retention (Harris, 2001; Hellsten et al., 2011; Kline & Walker-Gibbs, 2015; Mollenkopf, 2009). Having specific preparation for understanding time management, how to present learning

contents, and understanding how to complete administrative paperwork positively impacted teacher retention (Kartal et al., 2017). With targeted preservice preparation, rural educators entered the field with a better idea of the challenges and benefits they would face (Moffa & McHenry-Sorber, 2018; White & Kline, 2012). In one study, Moffa and McHenry-Sorber (2018) interviewed five in-service teachers in rural Appalachia to discuss their perceptions of their college experience in the context of their rural raising and now rural teaching careers. For preservice teachers who have not grown up in rural settings, this exposure to rural lifeways is instrumental. Blanks et al. (2013) found that several perceived challenges of rural living and teaching do not hold up when educators are exposed to rural living during preservice visits and preparation.

Rural practicum and preservice student-teaching placements were found across the literature to increase teacher retention (Blanks et al., 2013; Burton & Johnson, 2010; Harris, 2001; Hellsten et al., 2011; Kline & Walker-Gibbs, 2015; Tran & Dou, 2019; Ulferts, 2016; White & Kline, 2012; Zost, 2010). Tran and Dou (2019) found that preservice preparation often had an “over-emphasis on theory and suggested the need for more diversified field experience” (p. 141). When preservice teaching candidates are able to visit and work at rural schools, their perceptions of the profession can change as they begin to see the opportunities rural teaching presents. White and Kline (2012) argue for “a re-conceptualization of teacher education curriculum and a more integrated approach between coursework and the rural professional experience” (p. 36) and assert that having better, more targeted, and more integrated teacher education programs could solve the rural teacher shortage.

One study mentions the lack of certified special education teachers in rural settings and discusses the need for preparation in these areas, especially in rural settings where students who

would normally be in more formal special education classrooms are integrated into a multi-grade level class out of a lack of school staff (Berry et al., 2011). Inadequate preparation for teaching in bilingual, intercultural settings in Guatemala was also found to have a negative impact on teacher retention (de la Garza, 2016). Handal and colleagues (2013) found that being the only teacher to hold a specialized certification, as well as being asked to teach additional areas outside of areas they held expertise in, had negative impacts on retention. Similarly, Harris (2001) found that teachers who held generalized preparation persisted in their teaching positions longer than did teachers who held certifications and taught specialized positions, like music and special education.

Monk (2007) mentioned the development of university partnership programs which work with rural schools in order to introduce preservice teaching candidates to rural teaching. These university partnerships work with preservice and/or in-service teachers to incorporate many of the strategies mentioned in this literature review in a membership-based model. Monk is convinced of the importance of these programs for educator success and believes the in-service connections to be vital, though the author admits “progress has been spotty” when it comes to these types of programs flourishing (D. Monk, personal communication, 10-14-21).

Rural teachers benefit from having grown up in rural settings (Moffa & McHenry Sorber, 2018; Zost, 2010). Since they are familiar with rural lifeways, and the challenges and opportunities rural teaching presents, they were more apt to apply for and stay in rural teaching positions (Burton & Johnson, 2010; Zost, 2010). A feeling of preparedness positively impacted teacher retention (Adams & Woods, 2015). *Grow-your-own programs* specifically aim to recruit preservice educators to be teachers before they leave for college. Considering the perceptions rural educators had, having already grown up in the rural setting they returned to teach in, they

were able to better be prepared to handle the unique challenges of teaching in rural settings, given that they had experienced it themselves, and stayed in these positions longer (Adams & Woods, 2015; Burton & Johnson, 2010; Wood et al., 2013; Zost, 2010). Ulferts (2016) found that hiring locally and hiring teachers from grow-your-own programs increased teacher retention, while Lowe (2006) alternatively suggested inviting back retired teachers to fill vacant positions as a way to increase teacher retention. Beesley et al. (2010) consider local paraprofessional, service-oriented people (including those who have previously served in the military), and partnerships with university programs as a way to prepare and hire teachers for rural settings (p. 3). However, Huysman (2008) noted that “homegrown and transplanted teachers alike have questioned the philosophy of growing your own and if there is a threshold of the number of homegrown teachers that should be employed within a rural school or district” (p. 37) when considering collegial relations and power structures. This study suggested that having too many “homegrown” teachers created hierarchical structures leading to “transplanted” teachers feeling like they did not belong, resulting in them vacating their positions. Similarly, Hudson and Hudson (2008) discussed the lack of diversity in expertise and selection if only rural-grown educators were selected to teach in rural communities.

External Correlates

External Correlates include the subcategories of accountability (including teacher evaluation policies and teacher and principal effectiveness), workforce (including factors such as salary, retention bonuses, and late hiring), and school improvement (including school reform and research-practice partnership). School improvement did not return any findings in this literature review and as such is not included below.

Accountability

Leadership turnover can influence teacher turnover and uncertainty. Having stability in administration had a positive impact on teacher retention (Tran & Dou, 2019) whereas high principal turnover had a negative impact (Burton & Johnson, 2010). Additionally, having regular evaluations performed by administrators regarding retention and retention strategies was seen to positively impact teacher retention (Wood et al., 2013).

Workforce

Rural teacher salaries are lower than the salaries of teachers in urban and suburban settings (Monk 2007; Showalter et al., 2017; Xuehui, 2018). To connect salary back to providing an equitable education to rural students, “[high] turnover and an inclination to hire inexperienced people will lower average salaries” (Monk, 2007, p. 164). Salary is a complex issue when it comes to rural teacher retention—its impacts on retention throughout the literature were mixed. Beesley et al. (2010) wrote, “adequate salary is necessary but not sufficient for teacher retention” (p. 3), highlighting the complex interactions of factors which can influence retention. Several studies found that offering teachers a sufficient salary increased teacher retention (Beesley et al., 2010; Kaden et al., 2016; Lowe, 2006; Ulferts, 2016; Xuehui, 2018), and similarly, others found that low salary negatively impacted satisfaction and retention (Goodpaster et al., 2018; Huysman, 2008; Mafora, 2013). However, other studies found that salary, even when it was raised, did not greatly impact teacher retention or had mixed positive and negative impacts (Davis, 2002; Opoku et al., 2020; Wood et al., 2013; Zost, 2010). Being geographically closer to higher paying districts was found by one study to negatively impact teacher retention in rural settings (Wood et al., 2013).

Providing improved benefits to rural teachers in order to increase retention was found to have mixed results (Wood et al., 2013). Both Davis (2002) and Goodpaster et al. (2018) found that benefits did not substantially impact teacher retention, though Opoku et al. (2020), Lowe (2006), and Ulferts (2016) found that offering benefits, including competitive insurance packages, positively impacted retention. Health benefits and retirement benefits were also specifically found to positively impact retention by Kaden et al. (2016).

To compensate for lower salary, some rural schools hope to attract and retain teachers to rural positions through incentivization by providing teachers with additional bonuses or financial structures which might be an additional draw to teach in rural settings. Wood et al. (2013) noted mixed impacts on teacher retention for rewarding teachers with a bonus for staying longer than one year. However, Lowe (2006) found that bonuses had a positive impact on teacher retention. While providing incentives seems to be a popular strategy in teacher retention, there is debate about whether any type of incentive is enough to truly cause an impact (Monk, 2007). Some studies show that a lack of financial incentives negatively impacted teacher retention (Mafora, 2013), while others saw little impact from offering financial incentives (Maranto & Shuls, 2018). Teachers in one study noted that the cost of living in rural places was actually higher compared to other settings due to transportation costs to get goods and services (Handal et al., 2013). Though they were being compensated through incentives as a result of a lower salary, these incentives were not great enough to cover the added costs of transportation required from living in a rural setting, and teacher retention was negatively impacted. Rewards—financial and otherwise—are not felt to be great enough to sway preservice teachers to commit to rural positions (Handal et al., 2013; Tran & Smith, 2019).

For some districts, offering financial incentives, especially increased pay, is not feasible (Tran & Dou, 2019). To circumvent this challenge, some districts offer non-monetary incentives which have been found to positively impact teacher retention, including reduced housing costs, extended vacations, accelerated promotional opportunities, flexible scheduling, and loan forgiveness and repayment programs (Lowe, 2006; Opoku et al., 2020; Tran & Dou, 2019; Ulferts, 2016). Though these incentives have a monetary value per se, offering these types of incentives is more feasible for some districts. Financial assistance for education is one non-monetary strategy which has had different impacts on teacher retention. Tuition assistance had a mixed impact according to one study (Wood et al., 2013), while payment for continued education while in service was found by one study to have had a positive impact (Ulferts, 2016).

Plunkett and Dyson (2011) noted the negative impact of short-term contracts on teacher retention: "...the contractual nature of employment is... hindering the development of relationship building and ultimately impacting on decisions to remain in the profession" (p. 42). Similarly, Hodges and Tippins (2009) found that late contract discussions had a negative impact on teacher retention. Harris (2001) identified problems with late hiring and contractual negotiations as stressors which negatively impacted teacher retention; teachers who feel uncertain about if they will have continuing employment year-to-year do not feel there is stability in their positions and are more likely to leave their positions. Feelings of stability and economic prosperity were found to increase teacher retention (Harris, 2001). One study discussed a transfer point system which allowed teachers to accrue points to relocate to a different teaching position in a more desirable area (Handal et al., 2013). The potential of losing this system, in part due to school downsizing, negatively impacted teacher retention.

Compulsion is a technique used in order to force teacher recruitment and retention. Opoku et al. (2020) discuss how teachers in rural Ghana are assigned to areas and then required to teach in specific areas for a set amount of years. However, there were problems noted with this technique—teachers are known to pay off officials to assign them to non-rural contexts or to let them leave their positions earlier than they are supposed to. In this way, the impacts of compulsion on teacher retention are mixed.

Place-based Correlates

Place-based Correlates attempt to capture the place-based factors not represented in the teacher turnover framework (Nguyen & Springer, 2021). When considering teacher turnover in rural spaces, the specific place-based benefits and challenges associated with rural settings should be included. A critical pedagogy of place asks educators to “expand the scope of their theory, inquiry, and practice to include the social and ecological contexts of our own, and others’, inhabitation” (Gruenewald, 2003, p. 10); place-based learning greatly impacts teachers and their desire to remain in rural teaching positions (Brenner et al., 2021). The subcategories below are an attempt to thematically group factors which are place-specific, and not necessarily always rural-specific. The listed subcategories are likely not all-encompassing of the subcategories which could be present under this Place-based Correlates group, but are representative of the factors which emerged in this literature review research.

Community Support

The most frequently mentioned factor that emerged in this literature review was ensuring that teachers felt connected to and supported by their communities (Burton & Johnson, 2010; Davis, 2002; Eppley, 2015; Goodpaster et al., 2018; Harris, 2001; Hellsten et al., 2011; Kaden et al., 2016; Kline & Walker-Gibbs, 2015; Lowe, 2006; Opoku et al., 2020; Tran & Dou, 2019;

Tran et al., 2020; Ulferts, 2016; Wood et al., 2013; Zost, 2010). This connection took on many forms, from being exposed to a rural community during preservice preparation in order to begin building relationships with staff and young students (Hellsten et al., 2011), to ensuring teachers were welcomed into a community once they had accepted job positions (Opoku et al., 2020; Tran et al., 2020), to connecting with parents and grandparents at school events (Eppley, 2015). Developing relationships in small rural communities when teachers felt like “outsiders” can be difficult (Burton & Johnson, 2010; Goodpaster et al., 2018), but with targeted structures to introduce teachers to the community, creating connections could be easier.

Creating a culture of support and care between teachers and a variety of community members was found to have positive impacts on teacher retention across the literature (Harris, 2001; Lowe, 2006; Mafora, 2013; Tran & Dou, 2019; Tran et al., 2020; Wood et al., 2013). Rural schools are uniquely positioned to offer increased support between teachers, parents, and community members: “rural communities are characterized by strong social connections and interactions, e.g., strong parent-teacher and student-teacher linkages that enhance their rural teaching experience” (Goodpaster et al., 2018, p. 13). Zost (2010) suggested a “partnership of colleges, schools, *and communities*” (p. 13, emphasis added) in order to create a support network for teachers in order to retain them. The participants in the Moffa and McHenry-Sorber (2018) study also noted the helpfulness of practicum placements in rural settings were helpful in beginning to build community relationships.

In contrast to the positives being a part of a rural community can bring, there are also challenges when considering community relationships (Burton & Johnson, 2010; Goodpaster et al., 2018; Harris, 2001; Hellsten et al., 2011; Hodges & Tippins, 2009; Kaden et al., 2016). Some teachers felt that they were unable to find a place in the community (Hodges & Tippins, 2009);

because these communities tend to be small and insular, there is little feeling of privacy (Goodpaster et al., 2018). Navigating how to maintain boundaries between roles of being a teacher and being a community member was also seen as a challenge (Goodpaster et al., 2018; Hellsten et al., 2011). Public relations in these small communities can be difficult: handling conversations around race and politics in a small community had negative impacts on teacher retention (Goodpaster et al., 2018; Okraski & Madison, 2020; Tran et al., 2020). For example, one study found that racist actions toward Latine teachers in the South, coupled with narrow worldviews from a lack of exposure to diverse populations, naturally affected the ability of several teachers to feel like a valued part of the community, challenging their desire to stay in these rural positions (Okraski & Madison, 2020).

Enjoyment of Place

Enjoying the unique aspects of a rural lifestyle was found to be beneficial for teacher retention (Adams & Woods, 2015; Davis, 2002; Ulferts, 2016). Teachers cited that enjoying outdoor activities such as hiking, mountain biking, horseback riding, etc., made them more prone to staying in rural teaching positions (Davis, 2002; Ulferts, 2016). Teachers in rural places are able to experience the “serenity of rural living, the flora and fauna, an emphasis on outdoor activities, [and] familiarity with the community” (Hudson & Hudson, 2008, p. 68). Feelings of familiarity with the rural community they teach in was found to positively impact teacher retention (Harris, 2001). Due to generally smaller populations in rural areas (Monk, 2007), teachers play a greater role in the community and are able to connect with students in and outside of the classroom.

Being someone who enjoys a rural setting and the opportunities for recreation that rurality presents had varied impacts on teacher retention, based on the level of enjoyment

(Adams & Woods, 2015; Kaden et al., 2016). Several studies named a feeling of safety in rural environments being a factor which made teachers want to stay in their environments (Davis, 2002; Ulferts, 2016). Having a safe school environment positively impacted teacher retention (Goodpaster et al., 2018; Ulferts, 2016). Additionally, those who grew up in a rural environment and then returned to their hometown to teach have the added benefit of having their families close by; this proximity to family was found to positively impact teacher retention (Davis, 2002; Gomba, 2015; Ulferts, 2016). Feeling isolated from one's family was found to negatively impact teacher retention (Handal et al., 2013). The family-oriented culture of rural areas and the schools within them positively impacted teacher retention (Tran & Dou, 2019; Tran et al., 2020).

Community Resources

Housing was an important factor which impacted teacher retention—not being able to find adequate housing had a negative impact on retention, while being assisted in finding low-cost housing and/or having housing costs partially or fully covered as an incentive increased retention (Beesley et al., 2010; Handal et al., 2013; Kaden et al., 2016; Lowe, 2006; Ulferts, 2016).

Access to things like transportation, internet, medical services, and shopping also impacted teacher retention (Beesley et al., 2010; Handal et al., 2013; Kaden et al., 2016). The impact of this access on retention is mixed—some teachers are not impacted by the lack of access, while others are more likely to stay in rural areas that have access to these items. Kaden et al. (2016) found that a lack of access to healthcare was found to cause dissatisfaction in teachers (p. 142), and a lack of access to shopping was found to negatively impact teacher retention. The availability of events, religious activities, and socializing in rural areas impacted teacher retention (Adams & Woods, 2015; Kaden et al., 2016); a lack of social activities can

have mixed positive and negative impacts (Wood et al., 2013). Larger communities with bigger population sizes were found to positively impact teacher retention (Harris, 2001).

Place-specific Instruction

Rural landscapes lend themselves to place-based education which uses local knowledge and contexts to engage students in deeper learning (Brenner et al., 2021). Being able to connect science to the rural settings they teach in was seen to positively impact teacher retention (Goodpaster et al., 2018). When local knowledge was viewed as inferior and not used in science lessons, teacher retention suffered (Hodges & Tippins, 2009).

Multigrade instruction can be a reality of teaching in a rural school (Azano et al., 2021a; Harris, 2001). Having to prepare for multiple classes across subject areas, and having too large of a workload, were seen as factors which negatively impacted teacher retention (Belay et al., 2007; Goodpaster et al., 2018; Handal et al., 2013; Hellsten et al., 2011; Hodges & Tippins, 2009). Teachers desired more specialized preservice preparation on how to handle their workloads in rural contexts (Hellsten et al., 2011). Having to complete administrative paperwork, and not having adequate preparation in order to complete it, in addition to teaching classes was seen as negatively impacting retention (Belay et al., 2007; Handal et al., 2013; Kartal et al., 2017) or not having an impact in either direction (Zost, 2010). Other studies found that the workload that teachers experienced in these positions positively impacted teacher retention (Kaden et al., 2016). Some teachers were more likely to stay in positions they saw as challenging due to enjoying the intellectual stimulation of having additional challenges in rural positions (Davis, 2002; Goodpaster et al., 2018; Ulferts, 2016).

One way to address stereotypes associated with rural teaching is to present candidates with previews of what they can expect in rural teaching. When preservice teachers, or in-service

teachers looking to apply to different positions, are presented with realistic information regarding their position, they are able to see the opportunities that lie within rural teaching rather than just the challenges. One study addressed this by creating “realistic job previews” (Tran et al., 2020) which were recommended for posting along with job positions. This was thought to help with teacher recruitment and “requires not only highlighting the rural advantages, but engaging honestly with the challenges, balancing both for a credible realistic job preview” (p. 32). This strategy was “designed not only to increase the likelihood of recruitment, but retention of individuals who are more likely to stay” (p. 35).

Having an eye-catching, well-designed, and informative website used as a tool to recruit new rural teachers increased teacher retention (Lowe, 2006; Maranto & Shuls, 2018) and “[demonstrated] the climate and culture of the school and community” (Lowe, 2006, p. 30). Maranto and Shuls (2018) discuss the possibility that small rural districts may not have the budget to upkeep a website of great caliber. Understanding how to market positions and the opportunities that rural teaching presents also increased teacher retention (Beesley et al., 2010; Ulferts, 2016).

Another strategy used to retain rural teachers was to change the perceptions of in-service teachers when it comes to rural teaching as a career. These perception changes happened in in-service educators through reflective exercises (Vaughn & Saul, 2018). Vaughn and Saul (2018) found that in-service teachers who reflected upon their roles and visions for their communities and classrooms reported higher job satisfaction and gained confidence in their abilities as teachers. These visioning and reflection exercises are a different way to curate support networks for teachers. Malloy and Allen (2007) found that “reflective conversations related to best

practices” positively impacted teacher retention (p. 23). Reflection was also seen to positively impact teacher retention in rural Eritrea (Belay et al., 2007).

In the next chapter, these findings will be discussed in terms of what might be addressed, and how teacher education programs can implement these findings in order to reduce attrition and increase rural teacher persistence.

Chapter 3

Discussion and Recommendations

This research seeks to identify strategies and structures which can be used in order to better retain teachers in rural settings. Given the extensive attrition of rural teachers (Ingersoll et al., 2021; Sutchter et al., 2016), and the impacts this attrition has on student achievement (Changying, 2007; Ronfeldt et al., 2013; Terada, 2019), it is vital to consider what can be done to ensure rural teachers persist in their positions.

When evaluating the strategies to use to better retain satisfied teachers, it must be considered that there is not a one-size-fits-all technique (Monk, 2007). A broad, sweeping, generalized strategy will not work for all rural schools and teachers across the country or world. Considering of the uniqueness of each rural setting (including population size, distance from an urban center, jobs which support its economy and community, the subject and grade areas which are experiencing shortages, its geographic location, etc.), it is necessary to create intentional plans on smaller levels in order for these strategies to be effective. Identifying the root cause of the problems that are occurring is important when considering which strategies and structures to implement. Targeting the wrong factors with the wrong structures and strategies will not have the intended effects given the place-based nature of these factors.

Some of the Correlates which emerged in the literature review can be directly addressed, while others cannot. For example, it will not be possible for an administrator to change the distance between a school and an urban center. However, it might be possible for them to create a virtual, cross-district, collaborative group for educators who teach similar grade levels and lack in-person opportunities to bounce ideas off of colleagues. This discussion and recommendations

section will include ideas of how to creatively overcome these unchangeable factors like the geographic isolation of a school.

My review of the literature revealed several factors and structures as having mixed impacts on teacher retention. For example, the impact of salary and incentives, both monetary and non-monetary, had incredibly mixed results. Some studies found increased salary and incentives to have a positive impact on teacher retention (Beesley et al., 2010; Goodpaster et al., 2018; Huysman, 2008; Kaden et al., 2016; Lowe, 2006; Mafora, 2013; Opoku et al., 2020; Tran & Dou, 2019; Ulferts, 2016; Xuehui, 2018), while others were found to have negative or mixed impacts (Davis, 2002; Maranto & Shuls, 2018; Monk, 2007; Opoku et al., 2020; Tran & Smith, 2019; Wood et al., 2013; Zost, 2010). It is important to consider the implication of these mixed results. Perhaps, as mentioned above, these studies found mixed results due to these incentives targeting the wrong factors. It could be that the teachers in these studies who are being offered the incentives are more concerned with isolation rather than finances, and the schools or programs offering the incentives have not taken into consideration the unique needs of these teacher populations. Although incentives can be helpful in some situations, it is also important to understand that there are other factors which have a substantial impact on teacher retention. This is great news for schools and districts which cannot afford to offer additional incentives to rural educators—other factors and strategies which are free of cost may work just as well, if not better, at influencing teacher retention.

Also worth noting is the disproportionate number of studies on retention versus recruitment. As literature was being collected, the phrase “recruitment and retention” continued to surface. Even as I began this research project, I had intended to focus on both recruitment *and* retention, but found myself focusing heavily on recruitment due to the nature of the sources

which were produced in initial searches. By focusing solely on studies about retention, it became obvious that there are notably more studies on recruitment than on retention, even in those studies which claimed to be about both. Similarly, Goodpaster et al. (2018) note discrepancies in those considered in rural teacher retention research:

There is a paucity of research on the manner in which the experiences and perceptions of rural in-service teachers relate to their persistence in rural teaching. Most research in the area of teacher retention is focused on why teachers leave rural schools and has been conducted mainly with pre-service teachers, first year teachers, and administrators. (p. 10).

In order to address this gap in the research, and in order to ensure all students are provided a high-quality education with high-quality educators, it will be important for more researchers to consider what makes teachers stay, not just how to get more teachers into these settings. The provided recommendations are meant to begin to address this gap.

Recommendations

The recommendations below are listed having considered at which level they might be best implemented. With these recommendations, it is important to consider the unique contexts and needs of the teachers who are the target of these retention strategies. Each rural school setting will have a distinctive “place-specific nexus between environment, culture, and education” (Gruenewald, 2003, p. 10) in which these strategies and structures take place. It is also important to consider the distinct needs of preservice versus in-service educators, especially in light of their level of experience (Personal Correlates—Teacher Qualifications) both with teaching and in being in rural settings.

Recommendations for Schools

Perhaps most importantly of all, schools should create and implement deliberate structures which connect new teachers with their community. Schools should hold community events and make a concerted effort to introduce teachers to community members so that they begin to understand their place and role in the community. School administrators could lead the effort, ensuring teachers are introduced to different members of the community and are invited to community events, acting as a point person the teacher can go to in order to initiate connections. Having administrator support in this way could make rural teachers feel included and integrated in their community and their school, and could also cultivate positive relationships between teachers and administrators. Developing community connections and having positive interactions with community members from the start will be paramount to ensuring teachers feel a sense of belonging and community leadership, and will increase teacher persistence.

Further considering integration and support, schools should create targeted induction and mentorship programs which seek to include new teachers in the school from the start. It is important for these programs to continue working to make staff feel included and important through deliberate structures, and therefore mentorship should be continued into service. Teachers who hold a great deal of experience, and who want to be mentors, could mentor newer rural teachers. This could create a more intentional culture where all staff members feel valued and are able to share their learnings with one another. If schools are too small to implement this recommendation, it could fall to the district or even cross-district level.

Schools attempting to better retain rural teachers should ensure that teachers have a great deal of opportunity to collaborate with other teachers to discuss ideas and challenges, especially if that teacher is a “lone wolf” in their grade level or school, or if they have voiced feeling

professionally isolated. Schools should consider using technology like Zoom to create opportunities for connection for teachers across schools, districts, and states in order to promote collaboration to reduce professional isolation.

Finally, schools should create intentional space and structures for reflection and visioning for teachers in order to allow them to see themselves as teacher-leaders in the community. This space will allow teachers to see the distinctive opportunities they have as a rural teacher to make meaningful changes in their communities and students. This recommendation has the potential to positively impact job satisfaction and the mental health of rural teachers.

Recommendations for Districts

To address teacher retention from early stages, districts should create websites and marketing which accurately portray the benefits and challenges of open rural positions. Properly advertising the benefits and challenges of teaching in rural places, that is being realistic about what the position really entails, will ensure that candidates who apply will be better exposed to the realities of each job. These educators will be more likely to persist in these positions given that they will better know what to expect.

Similarly, districts should consider recruiting students from the community to return as part of a grow-your-own program. Having new teachers who are already familiar with the uniqueness of rural school and community contexts means they already have experience in this regard. Recruiting preservice teachers before they leave for college would mean they are deliberately preparing to become a teacher in a rural setting throughout their education and could seek out opportunities to prepare themselves professionally.

Offering targeted and differentiated in-service professional development is another effective way to increase teacher retention. Districts should allow teachers who are interested in

more specialized topics (e.g., special education, STEM teaching, place-based education) to gain additional education in these areas throughout their employment, fulfilling desires for lifelong learning. Districts should continue offering professional development which will help teachers use their local community and resources in their lessons; allow them to see the opportunities for instruction which lie in their local environments in order to connect School Correlates with Place-based Correlates.

Districts should also work to support and retain rural administrators. Having strong, persistent rural principals and administrators will ensure that the culture of a school and the administrative support offered to teachers remains consistent. This consistency will give teachers a sense of stability in their profession, encouraging them to stay in these places.

Finally, districts should consider if teachers might be better retained with non-monetary incentives, such as housing assistance, continued education, and/or flexible work weeks. Districts might also seek out governmental financial assistance to provide transportation infrastructure for teachers who might commute to a rural school from another place in order to reduce the burden of transportation costs. Districts should work with and listen to teachers in order to understand if their salary is enough to retain them, or if they might need additional incentives or benefits in order to stay in rural settings. District officials should discuss if there are nearby districts which pay higher salaries or are closer to more diverse infrastructure, then create open and honest dialogues with teachers to identify which incentives might encourage teachers to stay in their current positions rather than moving to these areas.

Recommendations for Universities

Universities should give preservice teachers opportunities for experiences in rural settings in order to prepare and excite them for rural teaching and living. Teacher preparation programs

should offer rural practicum experiences by partnering with rural schools in districts across the state so that preservice teachers can be placed in these settings. Gaining the knowledge and experience of being in a rural school could create vast perception changes by exposing preservice teachers to a new setting and would give educators opportunities to see the benefits of being in a rural place, better preparing them to be persistent in rural settings.

Showalter and colleagues (2019) recommend that “programs that address chronic issues related to recruiting and retaining high-quality teachers in rural areas should be expanded and pursued” (p. 37). Similarly, Monk (2007) recommends the development of university-based partnerships as a method to introduce teachers to rural settings, believing these programs to be vital to the success of rural educators (D. Monk, personal communication, 10-14-21). Rural Teacher Corps programs are a model which have found success around the nation in recruiting, preparing, and retaining educators in rural settings (e.g., The Rural Schools Collaborative). Many of these programs focus on preparing preservice teachers at universities to take on rural teaching positions (<https://ruralschoolscollaborative.org/rural-teacher-corps>). However, some programs also continue to work and maintain relationships with in-service teachers. Rural Teacher Corps are able to offer targeted structures and strategies which are applicable on a school-by-school to region-by-region basis. The collaborative nature of these allows for cross-state, and even international, meetings and forums where educators in rural settings can discuss their strategies and learn from others in similar programs. Creating university-based Rural Teacher Corps programs which better introduce and mentor preservice teachers to rural schools are a worthwhile method to ensure educators are prepared academically and experientially to enter rural settings. Guaranteeing that preservice teachers are exposed to rural settings, and that they have been prepared for rural-specific challenges, might ensure their longevity in the field.

Limitations

As the sole researcher, I searched for and selected all of the papers which were included in this study. Having only one person collect the literature means that it is likely some sources were missed. Additionally, as the lone researcher, I coded all of the data. Getting all of the data to fit neatly into categories was difficult and required several judgment calls, especially concerning sorting quantitative data into the qualitative categories of positive, negative, neutral, and mixed. Having one person coding and sorting results into Correlate categories is likely to lead to error; having a team coding the research may have led to different results and would allow for discrepancies to be resolved by agreement.

Although this literature review included a great number of sources, there were predetermined limits to its scope and date range. Therefore, it is very likely that more sources on the topic of rural teacher retention exist. By searching additional terms and by continuing to look for sources with terms which seemed to have hit dead ends may have produced additional sources. Another researcher with a larger scope may want to complete a systematic literature review in order to understand all of the literature which exists on the topic.

Future Research

Understanding the impact of these suggested recommendations as they are chosen and used by administrators and teacher preparation and retention programs could return important results. Understanding the short- and long-term impacts of the recommendations provided in this research could further provide evidence for the strategies which are most impactful for different rural settings.

Considering strategies which might be implemented at the state or federal level would also be a valuable area of research. Understanding the impacts of standardized testing and school

funding structures on rural teacher retention could create widescale changes with cascading effects on different levels, including improvements to rural student achievement and success.

Finally, the ongoing COVID-19 pandemic has also had dire effects on teacher retention (Carver-Thomas, 2022). Rural school teachers feel that the pandemic has had a direct impact on teacher retirements in their area, and that retention would be affected (Rural Schools Collaborative, 2021). Though the true impacts of the pandemic on retention still need to be studied, there is no doubt that there have been massive shifts in the teacher workforce. With online and hybrid classes, the need to bring technology to rural places to aid teachers in connecting with their students, communities, and colleagues will be even more necessary. Support from administrators will be even more critical as teachers work in a quickly changing landscape, and the need for collaboration and connections to reduce professional and personal isolation might intensify. COVID-19 has no doubt had an impact on the findings of this research, and understanding its impacts on retention broadly, and in rural areas specifically, will be important to continuing to provide equitable education to students across the world.

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NOTE: Asterisks in this section denote sources which were initially identified through a research methodology course.

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Appendix A
Correlates and Citations

Table A-1

Correlates and Supporting Citations

Factor/Structure	Citations
	School Correlates
School Organizational Characteristics	Adams & Woods, 2015; Beesley et al., 2010; Belay et al., 2007; Berry, 2012; Burton & Johnson, 2010; Cobold, 2007; Davis, 2002; de la Garza, 2016; Gomba, 2015; Goodpaster et al., 2018; Handal et al., 2013; Hargreaves et al., 2015; Harris, 2001; Hellsten et al., 2011; Hodges & Tippins, 2009; Huysman, 2008; Kaden et al., 2016; Kline & Walker-Gibbs, 2015; Lowe, 2006; Mafora, 2013; Malloy & Allen, 2007; Okraski & Madison, 2020; Opoku et al., 2020; Tran & Dou, 2019; Tran et al., 2020; Ulferts, 2016; Wood et al., 2013; Zost, 2010
School Resources	Beesley et al., 2010; Belay et al., 2007; Davis, 2002; Goodpaster et al., 2018; Handal et al., 2013; Harris, 2001; Hellsten et al., 2011; Kaden et al., 2016; Kartal et al., 2017; Monk, 2007; Opoku et al., 2020; Tran & Dou, 2019; Ulferts, 2016
Student Body Characteristics	Ab Aziz et al., 2021; Belay et al., 2007; Davis, 2002; Goodpaster et al., 2018; Harris, 2001; Kaden et al., 2016; Kartal et al., 2017; Opoku et al., 2020; Tran & Dou, 2019; Tran et al., 2020; Ulferts, 2016
Relational Demography	Okraski & Madison, 2020

TABLE A-1 CONT.

Personal Correlates	
Teacher Characteristics	Ab Aziz et al., 2021; Beesley et al., 2010; Belay et al., 2007; Burton & Johnson, 2010; Davis, 2002; de la Garza, 2016; Frid et al., 2008; Gomba, 2015; Goodpaster et al., 2018; Handal et al., 2013; Hellsten et al., 2011; Hodges & Tippins, 2009; Huysman, 2008; Kaden et al., 2016; Okraski & Madison, 2020; Mafora, 2013; Opoku et al., 2020; Tran & Dou, 2019; Tran et al., 2020; Ulferts, 2016; Wood et al., 2013; Zost, 2010
Teacher Qualifications	Adams & Woods, 2015; Beesley et al., 2010; Berry et al., 2011; Blanks et al., 2013; Burton & Johnson, 2010; de la Garza, 2016; Handal et al., 2013; Harris, 2001; Hellsten et al., 2011; Hudson & Hudson, 2008; Huysman, 2008; Kartal et al., 2017; Kline & Walker-Gibbs, 2015; Lowe, 2006; Moffa & McHenry-Sorber, 2018; Mollenkopf, 2009; Monk, 2007; Tran & Dou, 2019; Ulferts, 2016; White & Kline, 2012; Wood et al., 2013; Zost, 2010
External Correlates	
Accountability	Burton & Johnson, 2010; Tran & Dou, 2019; Wood et al., 2013
Workforce	Beesley et al., 2010; Davis, 2002; Goodpaster et al., 2018; Handal et al., 2013; Harris, 2001; Hodges & Tippins, 2009; Huysman, 2008; Kaden et al., 2016; Lowe, 2006; Mafora, 2013; Maranto & Shuls, 2018; Monk, 2007; Opoku et al., 2020; Plunkett & Dyson, 2011; Showalter et al., 2017; Tran & Dou, 2019; Ulferts, 2016; Xuehui, 2018; Wood et al., 2013; Zost, 2010
School Improvement	n/a
Place-based Correlates	
Community Support	Burton & Johnson, 2010; Davis, 2002; Eppley, 2015; Goodpaster et al., 2018; Harris, 2001; Hellsten et al., 2011; Hodges & Tippins, 2009; Kaden et al., 2016; Kline & Walker-Gibbs, 2015; Lowe, 2006; Mafora, 2013; Moffa & McHenry-Sorber, 2018; Okraski & Madison, 2020; Opoku et al., 2020; Tran & Dou, 2019; Tran et al., 2020; Ulferts, 2016; Wood et al., 2013; Zost, 2010

TABLE A-1 CONT.

Place-based Correlates cont.

Enjoyment of Place

Adams & Woods, 2015; Davis, 2002; Gomba, 2015; Goodpaster et al., 2018; Handal et al., 2013; Harris, 200; Hudson & Hudson, 2008; Kaden et al., 2016; Monk, 2007; Tran & Dou, 2019; Tran et al., 2020; Ulferts, 2016

Community Resources

Adams & Woods, 2015; Beesley et al., 2010; Handal et al., 2013; Harris, 2001; Kaden et al., 2016; Lowe, 2006; Ulferts, 2016; Wood et al., 2013

Place-specific Instruction

Beesley et al., 2010; Belay et al., 2007; Brenner et al., 2021; Davis, 2002; Goodpaster et al., 2018; Handal et al., 2013; Harris, 2001; Hellsten et al., 2011; Hodges & Tippins, 2009; Kaden et al., 2016; Kartal et al., 2017; Lowe, 2006; Malloy & Allen, 2007; Maranto & Shuls, 2018; Tran et al., 2020; Ulferts, 2016; Vaughn & Saul, 2018; Zost, 2010

Author's Biography

Alexandra Martin grew up in Richland, WA, with a scientist father, a teacher mother, and an older brother. She attended the University of Washington and graduated in 2017 with a BA in Anthropology and a minor in American Indian Studies. Alex went on to work for Dr. Darby Stapp and Julie Longenecker at their cultural resource management firm (and simultaneously coached a high school dance team) back in Richland until Darby urged her to attend the Teton Science Schools in Kelly, WY, due to a happenstance conversation on a hike in the Tetons. During the TSS graduate program, Alex met and was inspired by the brightest, most wonderful cohort of students who quickly became family. She has been lucky to continue her education with many of them at the University of Wyoming. Alex has spent the second year of her graduate education immersed in the area of rural education, including this Plan B research, her assistantship working to establish a Wyoming Rural Teacher Corps, and designing and facilitating place-based science lessons at local rural schools.