Chapter #18

INNOVATING TEACHER EDUCATION THROUGH RURAL EDUCATIONAL CONTEXTS: NEW POSSIBILITIES IN TEACHING AND LEARNING

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Abstract
In the United States (US), rural schools are often unable to provide the same academic opportunities as suburban and urban schools. Rural student populations are becoming increasingly diverse and require rural schools to provide new services to their community. This chapter examines how we have collaborated with rural schools to address their need for resources, teachers, and support. We use ecological agency to frame the ways contextual affordances and challenges of rural schools provide distinct opportunities for teacher education programs to innovate teaching and learning. Many factors that have prevented sustained and authentic engagement with rural schools have been minimized in recent years through technology and increased broadband connectivity. Technology offers a range of opportunities for teacher education programs to engage more authentically with rural schools and provide sustained support through telepresence-based field and student teaching experiences, distance and online-based supervision, and shared virtual and online pedagogies of the rural. To make these innovations more sustainable, the use of technology in rural schools will need to be evolved and supported in new manners to have an impact on the agency of rural teachers. In this way, rural can be a lens for technological innovation in teacher education and rural schools.

Keywords: rural, teacher education programs, teaching and learning, innovation, ecological agency.

1. INTRODUCTION

Despite recent prioritization in national politics and economics, rural communities and schools across the United States (US) are still facing an array of challenges (Showalter, Hartman, Johnson, & Klein, 2019). In the US, rural schools are funded less proportionately and often do not have the resources of suburban and urban schools, while also struggling to recruit and retain teachers in nearly all subject areas, especially STEM (Science, Technology, Engineering, and Math education). Rural schools are often unable to provide the same academic opportunities as suburban and urban schools, which has compounding effects on all students, whether they want to take advanced placement courses or other specific courses for their chosen career pathways (Showalter, et al., 2019). Furthermore, rural student populations are becoming increasingly diverse and require rural schools to provide new services (e.g., English language learner [ELL] resources, mental health support, internet access) to their community. These challenges can be seen in states like Kansas, as well as across the Midwest (Nguyen, 2020).

Teacher shortages continue to be an issue across the United States, especially in rural communities. Teacher education needs to find more effective ways to engage with rural schools and contexts to address these shortages. The need to engage with rural schooling serves several goals. The most obvious, of course, is to recruit rural students into teacher education and to prepare teachers to return to rural schools. Beyond that, teacher education

as an academic discipline needs a much more robust research agenda with regard to rural education. We need increased engagement to both better understand how to serve rural schools, as well to better prepare preservice teachers for the pedagogy of the rural (Walker-Gibbs, Ludecke, & Kline, 2015). Recruiting and retaining highly qualified teachers in rural settings has been an ongoing challenge (Azano & Stewart, 2015), and only amplified by the COVID-19 Pandemic (Wang, Tigelaar, & Admiraal, 2021). Teacher education should play a role in addressing teacher shortages in rural, and all, contexts.

Factors that have attributed to teacher education programs lack of engagement with rural schools in general have much to do with two factors: proximity of rural schools to teacher education programs and the complexities of teaching in rural schools. Primarily, rural schools are often long distances from university teacher education programs. The distance and proximity of rural schools to teacher education programs has a dually limiting effect. First, rural schools are not conveniently accessible to teacher education programs for field experiences and student teaching experiences, and subsequently their university supervisors. With limited access to rural schools, preservice teachers' experiences with rural schools (if they have any) are often fleeting, contrived, and lacking in critical engagement with rural pedagogical issues (Azano & Stewart, 2015). Second, teacher education programs are not conveniently accessible to rural students that are aspiring to be teachers. Often times for rural students the idea of leaving their rural community as either a young or mature adult has cultural and financial implications that can cripple aspirations of attending the university. While college or university communities are often relatively small in comparison to cities, these communities can be significantly larger than rural communities. Furthermore, college and university towns often have a significantly higher cost of living.

Secondarily, the complexities of teaching rural schools provide a range of factors that limit teacher education programs' abilities to prepare preservice teachers who want to teach in rural settings. The complexities range from the need for place-based pedagogy and specific career and technical education pathways, to multiple-subject certified teachers (e.g., math, science, and agriculture) to cover all courses of study and meet the financial needs of the rural schools and community (Azano & Stewart, 2015). Complexities of any school context are hard to capture fully through teacher education programs, but especially if preservice teachers have limited or no access to that context. Finally, as teacher education struggled to address the need for diversity—to increase the numbers of diverse candidates and faculty and to provide field experiences in diverse settings—rural schools were, rightly or wrongly, viewed as not contributing to that exigence. This can be attributed in part to faculty and student bias about rural communities, lack of experience in rural schools, and stereotypes of rural students. Many rural communities in Kansas are diverse with 50%-80% of the student population identifying as ELL.

Many of the factors that have prevented sustained and authentic engagement with rural schools have been minimized in recent years through technology and increased broadband connectivity in rural contexts (USDA, 2021). Furthermore, one benefit of the COVID-19 Pandemic has been that rural stakeholders that were once reluctant to engage with technology have become more comfortable with a technological presence in their schools. Technology offers a range of opportunities for teacher education programs to engage more authentically with rural schools and provide sustained support through telepresence-based field and student teaching experiences (Wertzberger, 2019), distance and online-based supervision (Clark, Larson, Wertzberger, & Vontz, 2021), and shared virtual and online pedagogies of the rural (Wang et al., 2021). While these innovative uses of technology have begun to engage rural schools more fully, to make the engagement

sustainable the use of technology in rural schools will need to be evolved and supported in new manners to have an impact on rural teacher recruitment. In this way, rural can be a lens for technological innovation in teacher education. The next three-five years will be pivotal for teacher education programs to establish technologically-based relationships with rural schools to fully realize opportunities for innovation.

2. THEORETICAL FRAMING

We approached our rural school and teacher education partnerships "ecologically," wanting to better understand the interrelations and connectedness of the socio-cultural context in which each unique rural school operates (Wideen, Mayer-Smith, & Moon, 1998). In regard to interrelations, we mean the relationships among those present in the rural school context – students, teachers, administrators—as well as the contextual conditions of the school, community, public and personal spaces. The connectedness and disconnectedness of these relationships create possibilities and opportunities for agency within each rural school's ecological context. Thus, this work was informed by an ecological theory of agency (Biesta, Priestley, & Robinson, 2015). There has been a lot of recent research on the topic of agency, especially for teachers in constraining contexts (e.g., underfunded schools, ELL classrooms without resources or support, classrooms during COVID-19) (Biesta et al., 2015; Buchanan, 2015; Kayi-Aydar, 2015), including the use of ecological agency (Oolbekkink-Marchand, Hadar, Smith, Helleve, & Ulvik, 2017). Ecological agency theorists define agency as action in the context of structures, or an actor's capability to "critically shape their own responsiveness to problematic situations" (Biesta et al., 2015; Buchanan, 2015; Kayi-Aydar, 2015; Priestley, Edwards, Priestley, & Miller, 2012). In an ecological view: "actors always act by means of their environment rather than simply in their environment [because] the achievement of agency will always result from the interplay of individual efforts, available resources and contextual and structural factors as they come together in particular and, in a sense, always unique situations" (Biesta et al., 2015, p. 626). Similarly, our view of agency situates agency as something an individual achieves under distinct ecological conditions, and the resources available to them.

We use "ecological" as a lens to view the rural school context holistically, and the wide range of factors, both inside and outside the school, that enable and constrain not only the school administration's actions, but also our partnerships. Agency, in the ecological sense, maintains actors constantly achieve agency in response to the ecological conditions of the context, even for those who seemingly have the more constraints, or even more affordances. Therefore, in an ecological sense, as a land grant institution, we view our partnerships with rural schools as a mutual way to achieve agency given the distinct context and constraints in which each rural school finds itself. An ecological theory of agency is relevant to our work with rural schools because it prioritizes individuals' reflexive and creative counters to cultural, economic, political, and societal constraints that open inquiry into possibilities (Pantić, 2015). Through partnerships with rural schools, the REC hopes to provide new possibilities for both the reproductive and transformative goals of our rural school partners. We use an ecological sense of agency to better understand the dimensions that our dynamic rural educational contexts utilize in achieving agency. The dimensions of rural educational contexts are dynamic because they represent a constant negotiation between historical precedent, future intentions, and current priorities. Scholars have described three primary dimensions in agency: iterational, projective, and practical-evaluative (Emirbayer & Mischa, 1998). Most recently, and simply, Pantić (2015,

p. 768) illustrated the three temporal dimensions associated with ecological agency, as "influences from the past (e.g., adopted routines), orientations towards the future purposes (e.g., intentions, hopes, fears) and engagement with the present (e.g., judgments about opportunities)." We use these dimensional elements of agency to provide framings for the goals of our partnerships in a structurally constrained ecological context.

We exercise the iterational dimension when we reflexively select and utilize values and beliefs related to past experiences and life histories, past instances of achieving agency, and realizations and actions that were important. (e.g., rural community values, beliefs, and identities and past experiences working with post-secondary institutions). We draw upon the projective dimension when employing intentions to transform and bring about a future that is different from the past and the present, and our partnership with rural schools often prioritizes the projective (e.g., teacher recruitment, grants focused on career education). The practical-evaluative dimension situates our partnerships in the present, where all stakeholders' agency is interacting with the ecological context and being influenced by both past reflexive iterative knowledge and future projective intentions. While the iterative and project dimensions provide priorities for ecological agency, it is in the practical-evaluative dimension where those priorities are negotiated within the context.

3. VISION

Rural schools offer an opportunity for teacher education programs to develop innovative ways of using technology to recruit teachers equipped for the complex needs of rural communities and students. Our primary question for our development and research work is: How can we utilize university, community, and school resources to increase the quality and quantity of teacher recruitment and retention? At our institution we are addressing recruitment and retention by using rural schools to innovate our teacher education programs and support rural schools in three ways: (1) telepresence-based field experiences, (2) distance and online-based supervision, and (3) shared virtual and online pedagogies of the rural. In developing innovative practice for our teacher education program, we have relied on rural schools to be the sites to pilot new approaches to ongoing issues in teacher education. We have found rural districts and schools to be ideal sites for innovation because they offer a highly flexible educational setting whereby their teachers and administrators are receptive to implementing new approaches to teacher preparation and serve as valuable partners in the co-construction of those approaches. In turn, our preservice teachers benefit from their involvement in unique field experiences, while school districts are able to increase their recruitment opportunities through our partnership. We have several practices that have been effective thus far that can affect teacher recruitment.

First, we have found telepresence-based field experiences to be effective throughout our teacher education programs. Our telepresence-based experiences are facilitated through autonomous telepresence robots that can move throughout the classroom. Telepresence-based field experiences increase the richness of teacher education programs by providing opportunities to experience schools that our preservice teachers would not have seen otherwise. By richness, we refer to the depth of a pedagogical approach, it's layers and meanings, and possibilities for multiple interpretations (Doll, 1993). When preservice teachers engage with rural schools through telepresence, they encounter another layer of cultural and contextual experiences, as well as new modalities for them to use in interpretating school contexts. Most of our preservice teachers are from suburban schools and their perspective of what constitutes an elementary, middle, or high school can be

narrow in scope. Telepresence-based field experiences also add richness to our program in terms of pedagogical outcomes. For example, at our institution, preservice teachers in their initial field experiences use telepresence robots to observe and interreact in rural classrooms. It allows us to better scaffold their experiences in the classroom, and they are able to see things like project-based learning and place-based learning in action. They also see a range of diversity with our rural classrooms comprising increasingly culturally and linguistically diverse classrooms, including representation of growing Latinx communities in rural settings (Chang, 2015). Most rural classrooms offer smaller class sizes that allow our preservice teachers to interact more freely with both the students and cooperating teachers. The telepresence experiences deepen preservice teachers' understanding of classrooms and pedagogy, preparing them for subsequent coursework, and providing another conceptual example of schooling.

Equally important, telepresence-based field experiences initiate recruitment efforts and expose our students to a possible career in a rural school. We are working to evolve the use of telepresence experiences to add even more depth by cultivating professional relationships between rural school district administrators and preservice administrators. Rural school districts are leveraging this technology to promote their communities' strengths, share authentic opportunities for potential candidates to experience their schools and communities via telepresence and in-person, and recruit for in-service teaching. Ultimately, school districts are increasingly utilizing telepresence technology to build relationships with preservice teachers through the various field experiences built throughout the sequence of their teacher preparation, from early observational placements to and even including the final semester-long internships (Wertzberger, 2019).

Second, distance and online-related supervision technology also allows us to address teacher recruitment in rural school settings through our online teacher licensure programs. Our online licensure programs allow students who live in rural contexts, and who are unable to attend our university on campus, to attain a teaching degree completely from their rural context. A majority of our students in online licensure programs are currently working in schools, including rural schools. The primary goal of online licensure programs is to help rural schools recruit and train potential teachers in their community – some of which may be in a high school pathway program. The pedagogical innovations of our online licensure programs stem from video assessment software, such as GoReact, which allow for distance supervision and feedback. Secure virtual supervision platforms such as GoReact, allow preservice teachers to livestream or upload video, which university faculty can provide feedback that is timestamped within the video. Preservice teachers can respond and reflect on their videos, and related feedback. Technology, such as GoReact, that enables distance supervision allows teacher education programs to develop their preservice teachers practice and self-efficacy through regular and frequent feedback on their experiences as part of their semester or yearlong field experiences. We are working to evolve the use of distance supervision with even more pedagogical outcomes that add to the recursive and relational (Doll, 1993) outcomes of field experiences through more longitudinal and sustained experiences within schools. As we evolve the field experiences the role of the university supervisor needs to evolve along with it. In our rural school field experiences, technology has allowed our supervisors to take on a role that is better characterized as a coach, due to a more frequent, sustainable, and assets-based interaction model (Clark et al., 2021). Using GoReact is just the beginning of evolving the evaluative supervisor role, to a more supportive coaching role.

Lastly, we think the field needs to prepare preservice teachers for interdisciplinary approaches to subject matter. While these approaches are arising in all school contexts (e.g., STEM, STEAM, CTE), it is much more common in rural schools. By simply being more present in rural schools through telepresence and online programs we address rural teacher retention by supporting their pedagogies and providing additional resources. We call this shared virtual and online pedagogies of the rural. The increased presence in rural schools allows for a two-way street of sharing, developing sets of new relations. The concept of relations (Doll, 1993) as an approach to learning has both pedagogical and cultural implications. Pedagogical relations are best demonstrated through place-based learning. Often times the instructional practices are nothing new (e.g., expository writing, monitoring and measuring environmental aspects, or historical cause and effect) but applied to something in the rural community. From our experience, no one implements place-based learning better than rural schools, often because their sense of community and cultural identity comes through in their teachers' pedagogical relations. In many rural classrooms you see the talents of multi-subject teachers weaving together content, all while connecting it to their students' context. Our institution has worked to provide resources to these teachers to further connect their place-based learning to careers and technology in their community or region. This includes technology such as block-base coded drones and robots, telepresence robots, and bio-technology kits. We have been effective in getting rural teachers to use these technologies, and now we think the field needs to evolve practices to better prepare our preservice teachers to use these technologies at the beginning of their careers – mentored by our rural teaching partners.

4. IMPLEMENTATION

Rural educators face unique challenges and opportunities within the vast scope of American education. Incorporating technology into education has transformed learning, but the path of its integration in rural areas is unique. The next section highlights the perspectives of educators from rural schools and how they utilize technological tools to drive classroom innovation. This data was collected using mixed methods methodology, utilizing quantitative survey data and qualitative interview data. For this chapter, we focus mainly on the qualitative data.

Our experience with innovation in rural schools has led us to two suggestions for teacher educators, and their programs, who want to better engage with rural schools using technology to increase recruitment and retention of teachers. First, through the Rural Education Center (REC) at our institution, we have created rural professional develop school (RPDS) network of 15 school districts that partner with us on all of our initiatives. The RPDS schools comprise a diverse and distinct group of rural communities across our state, with schools that want to provide equitable opportunities for their students. Having these partner schools facilitates cooperation, collaboration, and trustworthy relationships that allow for increased innovation (e.g., telepresence field experiences). Each partner school has multiple telepresence devices for our preservice teachers and colleagues to interact in their schools. Our colleagues are able to research and observe innovation in school sites they were unable to in the past. Second, teacher educators and their programs should maintain consistent dialogue and reflection with rural schools as they pilot innovation at their school sites, which is enabled by the first suggestion. Rural schools offer a lot of positive logistical attributes that allow for smooth facilitation of research and innovation. Primarily, most rural schools are smaller in all aspects of schooling. They typically have smaller class sizes, less administrational levels to gain approval, and fewer

teachers in each grade-level or content area. However, none of these attributes matter unless there is constant dialogue and communication as the innovations address the adaptive challenges (Heifetz & Laurie, 2001) of the schools. Secondarily, many rural teachers are innovation minded, given their limited amounts of resources, and the multiplicity of courses/subjects they plan and teach. They welcome the opportunities for innovative professional development and new resources for their classrooms. The REC has been fortunate to be able to provide those resources. The REC has done this through the lens of several initiatives: the SOARING project (Sharing Opportunities, Approaches, and Resources in New Geoscience), and the LEAPES program (Learning, Exploration, and Application for Prospective Engineering Students). These case studies will demonstrate educators' commitment to bridging educational gaps, pushing the limits, and ensuring that their students are well-equipped for the digital era. These two factors make rural schools very amenable to research and educational innovation, and valuable to teacher education programs.

Our first suggestion is to develop a network of innovative schools built upon relationships of mutual trust. The RPDS network has become vital to envisioning our rural schools as sites of innovation. We began our RPDS partnerships with eight school districts in which we knew the administrators were open to innovation. We built a relationship of trust between the schools and the REC through our presence and support of each school district. As our projects grew, we became involved with more districts who were interested in partnering with us further and with whom we had developed trusting relationships. Thus, we have found trust to be one of the key components in developing a network devoted to innovation for a few reasons. First, trust is important for establishing mutually beneficial relationships with equal amounts of individual and collaborative agency. Both the REC and the school districts want to make sure that the time and resources we are devoting to innovative initiatives will potentially benefit students, teachers, schools, and the future of education in the state. Second, trust is necessary in order to take creative risks and explore new possibilities for solving educational problems in schools. For example, Mr. Durden from one of our partner districts described our trusting relationship well in saying, “We have learned that innovation is a give and take type collaborative effort, we have an issue, they provide some solutions, we consider those solutions in our schools, and revise accordingly…the partnership allows us to address our issues more creatively for sure” (Interview, 10/09/22). Mr. Durden’s reflection highlights the amount of adaptive challenges that rural schools face, and the value of trust in collaborative problem solving. Lastly, trust is vital to innovation in rural schools because with anything new entering the classroom, there will usually be questions and push back from the community, parents, teachers, and maybe even students. Trust often helps soften these sorts of responses to change and allows for opportunities to discuss the changes and adapt if necessary. For example, we placed a telepresence robot in a 3rd grade classroom so that one of the student teachers could complete their field experience. The principal had all sorts of questions from parents, of which he handled well because of our trusting relationship. He told us, “one parent was concerned that the government was recording their child through the telepresence device, and was very concerned about their own and their child's privacy. I explained to them that we and K-State had accounted for that in various ways, and then the parent eased up and said, ‘Oh, I didn’t realize it was a K-State project’” (Interview, 09/01/2021) and was not concerned from then on out. Therefore, trust is important for creating a mutually beneficial and collaborative innovation environment, as well as providing the support from the stakeholders to fully implement the innovation.

Building upon this foundation of trust, we have worked collaboratively with our RPDS partners to engage in ongoing dialogue and reflection about the unique challenges facing both teacher education and rural schools, as well as the potential to address these challenges in new and meaningful ways. Each year, the REC hosts its virtual Rural Summit, bringing together educational leaders from across Kansas, and the nation, to identify unique challenges faced by rural communities and schools, as well as to highlight innovative approaches to teaching, recruitment and retention efforts. Through the summit, rural educators and leaders are able to reflect upon the diverse needs and attributes of their communities, while networking in ways that support their ongoing initiatives. The summit serves as a catalyst for defining the REC's goals and priorities, and its involvement in supporting rural school districts across Kansas. It is also an important event by which the REC and RPDS partners discuss how they may leverage technologies and research to support rural communities. Indeed, the RPDS has been central in leading the vision of innovation, which in turn, has led to a growing number of opportunities for our pre-service teachers. In addition to telepresence field experiences, RPDS schools have offered to host a variety of other field experiences such as, faculty-led weeklong internship trips to rural schools for preservice teachers; preservice teacher-led summer virtual STEAM camps, etc. These opportunities were made possible due to ongoing dialogue and reflection occurring between the REC and the RPDS schools.

Rural schools are great sites for piloting innovation because they have a constant flow of authentic adaptive challenges in which they must respond. Adaptive challenges are described by Heifetz and Laurie (2001) as complex or systemic problems without easy answers or ready-made solutions that leaders alone cannot solve, which requires collective wisdom and digging deeply into a problem to fully understand and solve it. Adaptive challenges may also require more significant paradigm shifts, challenging existing beliefs, or finding a new path forward together. As a partner in finding innovative ways to address adaptive challenges with these schools, dialogue and reflection are vital. As we work with schools to pilot innovation and address their adaptive challenges we focus on five actions. First, we spend time trying to understand the nature of the problem and getting to the root cause. We want to know if the problem is unique to that particular district or something more common across rural school partners. Second, we want to avoid leaping to quick to ready-made solutions, and want to build upon the effective resources in the rural schools and add innovations to support those existing resources. This helps develop authentic solutions unique to those schools. Third, dialogue and reflection are important because as bright spots and success stories emerge in our partner schools we want to consider what contextual or ecological conditions created and/or enabled those successes. Lastly, we always seek to document our work, whether it is a success or failure. Dialogue and reflection enable this process and a context in which there is collaborative assessment of the innovation and method of addressing adaptive challenges. The small nature of rural schools, as well as the willingness and experience of rural teachers to address these adaptive challenges, makes them ideal collaborators for innovation.

As a result of the trust and collaborative nature of these partnerships, our RPDS schools provide pilot sites and teachers with experience addressing adaptive challenges by trying out innovative approaches to professional development and using new technology. For example, our project *SOARING* introduced students and teachers to remote sensing. This initiative additionally utilized an innovative approach to Geoscience by allowing students to work with soil and water sensors directly. SOARING helped science teachers develop new approaches to learning science and connected the science and sensors to geoscience careers. The hands-on experiences allowed students to observe the practical

effects of their activities, moving learning beyond theory, but also allowing them to see the practical applications of science. While each rural teacher approaches technology integration differently, the majority of rural teachers value and emphasize these experiential learning opportunities.

Building on this emphasis on hands-on experiences, engaging with new technologies emphasizes the importance of lifelong learning. When teachers see themselves as lifelong learners, they are more likely to stay updated with the latest educational trends and technologies, ensuring their teaching methods remain fresh and relevant. One of the rural teachers stated, "…I went to the LEAPES thing, so that's where I started and then I actually got my pilot's license …and then this summer camp came up…"(Interview,6/28/23). Rural teachers' involvement in professional development programs demonstrates their continuous desire for self-improvement and intellectual progress.

This commitment to professional development highlights an evident enthusiasm for technology among rural teachers, as well as their drive to share newfound expertise with students. This demonstrates a culture of innovation that extends beyond the classroom. These educators, who are continually seeking ways to enhance their skill set, display an ongoing commitment to preparing students for the ever-changing industries of the future. They demonstrate a dedication to pioneering strategies that will improve their students' educational journeys in a variety of contexts and academic disciplines. A more in-depth examination of their viewpoints indicates a consistent dedication to embracing technology and promoting creative thinking, which has greatly shaped their instructional frameworks.

Given these observations, teacher agency emerges as a key benefit of increasing technology-related professional development for rural teachers. Innovative educational methods place equal focus on evolving teacher's professional learning and agency. Professional development programs guarantee that instructors foster innovation in their classrooms by providing them with cutting-edge skills. However, the availability of these programs is limited, and funding constraints are a recurring problem in rural educational settings. As one rural educator stated, "In rural education, a lot of the buildings are starting to have issues so then the budget goes a lot towards building maintenance …. so going to these training sessions to use these technologies, and also receiving the actual devices that we could use at school, is really important to us."(Interview,6/28/23). This restricted budget unknowingly limits the potential for technology integration and innovation, despite the growing need for such advancements. Furthermore, the limitations of rural schools can often limit the opportunities for teachers' professional learning, as well as constrain their agency in the classroom.

We understand very well the institutional barriers to the kind of implementation we have outlined. The local culture within most teacher education systems is strongly predisposed toward a traditional model of localized engagement, and while COVID-19 pushed some of those boundaries, any move toward technologically mediated engagement with rural schools (e.g, with remote supervision) will require adequate conversation among professionals to secure the necessary institutional will. Furthermore, the role of technology in the future of teacher education must extend beyond replicating old paradigms in new spaces. It must assist in envisioning new constructs by which we define best practice in teacher education. This includes leveraging technologies to connect geographically and culturally diverse school partners in collaborative efforts to diversify teacher education, and to construct more accessible teacher preparation pathways for non-traditional candidates. Institutional conservatism and inertia notwithstanding, we believe the need to engage teacher education with rural education provides a powerful incentive for new paradigms of practice, research, and innovation.

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ACKNOWLEDGEMENTS

We would like to acknowledge all our Rural Professional Development schools who provide contexts to spark innovation in rural education.

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Short biographical sketch: Nooshin Darvishinia is a doctoral student in Curriculum and Instruction at Kansas State University with a research focus on technology in education. Her research interests include the intersection of technology and interdisciplinary studies. Nooshin has experience in conducting interdisciplinary research and is currently working as a Graduate Research Assistant (GRA) at Kansas State University. She has co-authored a book chapter and served as a journal reviewer for IGI Global. Additionally, Nooshin has 14 years of teaching experience and has worked as a lecturer at three different departments at Najafabad University in Iran, teaching courses in English as a Second Language (ESL) and academic writing. She holds a master's degree in Teaching English as a Foreign Language. Through her research and teaching experience, Nooshin has developed a deep understanding of the potential of technology to enhance teaching and learning in diverse educational contexts.