Digital Rural Community Walks: Building Preservice Teachers’ Rural Engagement through Technology Integration

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Rural communities around the United States are facing a critical shortage of teachers due largely to challenges with recruitment and retention. Our vision for responding to this growing crisis is to consider how technology-rich early rural field experiences that emphasize place-attentive technology integration can build preservice teachers’ interest in and commitment to teaching in rural spaces. More specifically, we propose that teacher educators consider how to provide preservice teachers opportunities for embedded rural field experiences where they build digital videos that document the assets of a community while reflecting on their preconceptions and misconceptions about a career as an educator in a rural community. This process of mapping a community’s assets has preservice teachers complete a digital “Rural Community
Walk” (RCW) video in which they identify, document, and reflect upon their experiences exploring rurality and teaching. If implemented with fidelity, these rural early field experiences that focus on place-attentive technology integration and the development of the digital RCWs could serve as mechanisms in teacher education that build the pathways needed to increase teacher recruitment and retention in rural communities.

INTRODUCTION

As teacher shortages continue to multiply nationwide, the consequences are especially dire in rural communities where small rural schools suffer some of the greatest hiring and retention challenges (Biddle & Azano, 2016) due to factors such as geographical remoteness and low salaries. In fact, research indicates that teacher shortages are most pronounced in rural, high-poverty, high-minority, and low-achieving schools (Cowan & Goldhaber, 2018). For rural students the loss of qualified teachers has become “not just an educational issue, but also an equity issue” (Behrstock-Sherratt, 2016, p. 13). These difficulties have only been exacerbated by the COVID-19 pandemic and the ensuing attrition of experienced teachers, with far-reaching negative repercussions for rural students and their future life opportunities.

As rural schools struggle to address teacher preparation, recruitment, and retention efforts, their communities may find themselves without the teachers needed to keep the schools open. This is a disastrous prospect for rural communities everywhere; when a rural school closes, the surrounding community often faces an uncertain future given that rural schools often have a role as the educational, cultural, and recreational hub of the regions they serve.

In response, teacher preparation programs are investing substantial effort toward mitigating rural staffing issues through re-envisioning and strengthening their programs in ways that encourage and prepare candidates to consider rural teaching positions. One such approach is to engage pre-service teachers (PSTs) in well-designed rural field experiences infused with place-attentive practices where they learn to value “the physical place, the diversity of people in and connected to the place, and...how the place itself affords an agentive tool for educators to use as a teaching tool, framing place with power” (White & Downey, 2021). In many cases, these types of rural field experiences could be connected to the stand-alone instructional
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technology course commonplace in most teacher education programs (Rose et al., 2017). This approach has the potential to strengthen pathways into rural schools and communities by providing PSTs with unique, technology-focused early experiences in rural communities while using that technology to emphasize and enhance place-attentive education practices. When these technology-rich early rural field experiences are coupled with required instructional technology courses, PSTs can focus on the role of place as they collaborate with K-12 learners to develop artifacts in the form of digital videos that showcase the assets of the rural community.

These “digital asset maps” take the form of short video-based digital stories produced by the K-12 students to illustrate the uniqueness of their rural school and its environs, including the strengths and assets the students perceive within their rural community. Our research has revealed that many pre-service teachers are unaware of the assets of rural communities; exercises such as a “rural community walk” (Downey, 2021) can be an effective way for PSTs to construct new and more complete understandings of a rural place and its assets. Furthermore, co-constructing digital video-based asset maps based on rural community walks with K-12 learners can afford PSTs an opportunity to see the community through their students’ eyes. As a result, they develop a sense of appreciation and cultural humility for the community (Azano et al., 2021) and are further encouraged to consider a career in rural teaching.

Technology-focused early clinical experiences in rural communities also have the potential to serve as a route for implementing a careful and deliberate process of technology integration. Exploring the intentional integration of technology can afford PSTs opportunities to see where and how technology can be used to augment their everyday teaching and student learning. Reflecting on technology integration that is contextualized within specific settings, such as the rural backdrop of their early field experiences, provides PSTs with precise insight into how to translate theory and best-practice approaches from coursework into practice.

VISION

Our vision for teacher education in 2025 imagines teacher preparation programs developing technology-rich early rural field experiences for pre-service teachers that emphasize place-attentive (White & Downey, 2021) technology integration. Specifically, we envision PSTs assisting K-12 students in building digital asset maps of their schools and their communities
This framework includes provisions for PSTs to: 1) reflect on their preexisting ideas and assumptions about teaching and technology integration (Lux, 2013); 2) learn about the role of place in the teaching and learning process (White & Downey, 2021); and 3) co-construct with K-12 learners digital artifacts that capture the strengths and assets of rural community. Through this process, pre-service teachers would witness first-hand the value, diversity, and agentive utility that comes with possessing a sense of place.

To rationalize our technology-focused approach to addressing teacher shortages in rural communities, we have examined data from a small qualitative case study (Merriam, 1998) investigating the experiences of two PSTs who engaged in the place-attentive practice of rural community walks. Data from the case studies yielded several key themes centered around 1) challenging preconceptions/misconceptions about rural communities; 2) changed beliefs about rural contexts; 3) instructional affordances in rural schools; 4) the role of relationships; and 5) the influence of the experience on career affirmation and future plans. In broad terms, findings from this work indicate that PSTs’ understandings can be changed through the experience of developing digital community walks in rural contexts. Whether their preconceptions and misconceptions were challenged or their perceptions of curriculum and resources in a rural school were changed, the PSTs indicated that constructing the digital rural community walk had a dramatic effect on their perceptions of rural schools and communities.

For example, one PST was struck by the relationship and rapport the cooperating classroom teacher had with his students. She implied she would happily give up some of the amenities that come with living in a larger town to have that kind of relationship with her future students: “The relationship that [the teacher] had with the students is just incomparable. I would give up a shopping center to have that kind of connection with my students.” Another PST shared that his future teaching plans were changed by the experience. Although the PST hoped to teach in a school or district large enough to have a soccer team, he felt teaching in a smaller rural school would be a rewarding fit for him professionally. He shared, “I don’t think I ever thought I could teach in a super small school, but I think in a size like [school], that format could fit me really well.”

These early findings suggest that technology-focused early rural field experiences integrated into stand-alone instructional technology courses have merit in addressing the challenge of preparing, recruiting, and retaining well-equipped teachers for rural communities. Further, we have evidence that early field experiences highlighting place-attentive technology
integration coupled with the development of rural community walks can serve as powerful clinical experiences. They provide PSTs the chance to bridge theory to practice, as well as to develop their instructional knowledge and skill while exploring the role that best practice approaches can have on technology integration.

Positive results aside, it is important to consider threats which may interfere with achieving this vision of motivating interest in rural teaching through place-based technology integration. A primary threat is the potential misalignment of goals for the early field experience between teacher educators and the partner school. Field experiences should be developed to be reciprocal and mutually beneficial, where the participating PSTs, the K-12 learners, and the school benefit from the partnership. To this end, teacher educators designing field experiences should be attentive to the needs of the partner school and ensure that those needs are being met. Constant communication with partner schools focused on the needs of school and community should be a routine component of the partnership. There may be times when teacher preparation goals for an early field experience might focus on place-attentive technology integration through the development of digital rural community walks, while the rural partners might be motivated to address local curricular needs and other contextual factors. Partnerships with schools are central to the teacher preparation process. Rather than recognizing partner schools only for the clinical contexts they provide, teacher educators must adopt a collaborative stance to meet partners’ needs in authentic and genuine ways.

A second threat to achieving our vision for 2025 is the potential lack of access to adequate rural contexts that are in proximity to teacher education programs. In some areas of the country, teacher educators seeking rural partners might have to contend with limited placement options. When student teaching in our program, PSTs often relocate to the far corners of the state where they can live in the community while completing the semester-long internship. However, options are more limited for on-campus students completing early field experiences due to the limited number of rural schools within reasonable driving distance and to potential inclement weather conditions that affect travel. A further limiting factor is the reality that a partner rural school might not want to host multiple groups of PSTs who will repeat the same project with their students over semesters or years. In other words, teacher educators might need to accommodate fatigue on the part of partner schools who want their students to have a more diverse set of technology-rich experiences with PSTs.
IMPLEMENTATION

As we implement our vision to address growing rural teacher shortages, we recognize the need to be deliberate about building varied and sustainable opportunities for students to have clinical experiences in rural contexts. Consequently, our vision for 2025 advances a framework where PSTs integrate technology while reflecting on their preexisting ideas and assumptions about teaching in a rural community, and co-construct with K-12 learners a digital rural community walk that captures the strengths and assets of rural communities. We believe the combined elements of this framework, supported by confirming perspectives, complementary instructional strategies, and research regarding the efficacy of the approach, will provide teacher educators guidance in moving toward this goal.

First, early field experiences (those that occur prior to practicum and student teaching) are appropriate spaces in which to provide the opportunity for PSTs to contextually integrate technology while reflecting on their preexisting ideas and assumptions about teaching in a rural community. Typically, the practicum and student teaching are viewed as capstone experiences where PSTs are asked to synthesize many dimensions of teacher knowledge including content and pedagogical knowledge (Shulman, 1986) during a time of professional enculturation. Focusing on place-attentiveness, rurality, and the attributes of the digital rural community walk early in the preparation program may help to lighten the cognitive and professional load experienced during the practicum and student teaching. Furthermore, such early field experiences typically allow greater space and flexibility, giving PSTs the latitude to focus on broader dimensions of teaching and learning such as relationship building, basic management of the learning environment, and the role that rurality (or similar specialized contexts) plays in education. Because the stand-alone technology course remains a key component of most teacher education programs (Rose et al., 2017), this seems a logical place to embed early field experiences that address place-attentive technology integration – in our case, for rural places through digital community walks.

Second, PSTs should be given considerable support and guidance in how to co-develop digital rural community walks in collaboration with K-12 students. Video production can be a complex and overwhelming process, even for teachers who are expert at technology integration. Therefore, teacher educators need to consider how best to provide participating PSTs, many of whom likely have little to no experience with the complexities of video production, necessary supports for planning and producing a short
digital video. To accomplish this task, a structured and integrated approach is needed to scaffold PSTs in working through the stages of pre-production, production, and post-production (Yang & Wu, 2012).

- During pre-production planning, K-12 students and PSTs would collectively reflect on the community’s assets, strengths, and funds of knowledge. This step would likely include research within the rural community, including interviews with community members. Initial brainstorming would be followed by construction of a proposal and storyboard that highlight those community attributes and make clear the story that will be told about the community.

- PSTs would then facilitate the production phase of the digital rural community walk. This process could also include the collection of media assets such as images and music in addition to the shooting of video. There is considerable potential at this stage to use more innovative video techniques like 360-degree video or drone video footage combined with more traditional video and still photos to fully capture the community’s assets. When video shooting wraps and all assets are collected, the PSTs would co-edit the videos with the K-12 students, building the final digital products.

- Post-production steps would conclude the process. A highlight of this phase would be having K-12 students and PSTs share the rural community walks with community members and stakeholders, solicit feedback, and reflect on the experience.

Third, while the actual early field experience should remain somewhat flexibly structured and respond to partner schools’ needs, teacher educators should consider making the reflective process for the PSTs highly structured. As indicated, in our vision, PSTs will routinely reflect during the field experience on their preexisting ideas and assumptions about teaching in a rural community. Encouraging routine, substantive, and timely reflection from the PSTs about their experiences, in which they are prompted to consider how their perceptions of rurality are evolving, is a necessary component. Additional prompts for reflection could focus on their preexisting ideas and assumptions about teaching and technology integration, how the PSTs perceive and value physical place, how the diversity of a school’s community and stakeholders are connected to that place, and how place can be used to grant learners agency (White & Downey, 2021). Combined, these prompts provide PSTs with structure to productively explore the possibilities of teaching in a rural context.
Future research using this framework could examine the efficacy of the approach in providing the insight needed for PSTs to build a sense of place that stimulates interest in pursuing a career path as an educator in a rural community. More specifically, research could explore whether producing a digital version of a rural community walk in the form of an immersive, student-produced video about the community’s assets influences PSTs rural sense of place and interest in pursuing a career in rural education. Research questions to guide future inquiry might focus on how collaboration on a K-12 student-produced digital RCW supports reflection on PSTs’ preexisting ideas and assumptions about what it would be like to teach in a rural community. Other research questions could focus on how PSTs’ reflections on preexisting ideas and assumptions about teaching in a rural community help them build a sense of place and interest in pursuing a career path as an educator in a rural community.

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References


