“Growing Our Own Teachers”: Rural Individuals Becoming Certified Teachers

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Abstract Attracting and retaining teachers for rural and remote areas are pervasive global problems, and Canada is not immune to these issues. As recommended by the Northern Alberta Development Report (2010), communities need to make an increased priority of local teacher recruitment, by “growing our own teachers” (p. 11). One way to do just that is to allow students to stay in their communities for preservice teacher education, thereby increasing access to potentially qualified individuals who might not otherwise be reached. In light of this provincial directive, this paper will examine the provision of blended preservice teacher education by examining student and instructor perspectives in one community-based program. While the emphasis of the study highlighted how alternative provisions of teacher education programs may better support students who live in rural regions, the results gave rise to the ways in which shifts in our delivery of programs may alter notions of relationality and at an institutional level, the evolving nature of the university itself.

Keywords Rural teachers · Blended delivery · Online · Teacher education programs · Relationality

1 Introduction

Universities have seen an interesting shift in attempts to be more attentive to the diversity of their students and the spectrum of life experiences that such diversity

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brings. Arguably, the nature of full-time residency at universities was intended to initiate the student into a tradition and practice of being what it meant to be educated well. The immersive experience to be on campus—even live on campus—was part of the ritual of the university experience. How universities reconfigure their space in how they educate students is notable in trying to redress the limitations that traditional on-campus programs may have had on students from diverse backgrounds, and in particular, those who live from distances beyond the urban campus.

In this light, we share our experiences developing and reflecting on a community-based blended online Bachelor of Education program that challenges the traditional university structure to increase equity and access for students in rural and remote areas of our Canadian province in Alberta.[1] The program was conceptualized and developed in response to the need to have more teacher training available beyond what teacher education programs traditionally provide in residency-based urban and satellite campuses (Smith and Peller 2020; Looker and Bollman 2020).

The program provides a blended learning design that recruits and attracts individuals from rural and remote communities across the province. Changing the traditional residency-based format of the university structure, the community-based program provides an intensive two-week on-campus residency in the summer, followed by a combination of online and field experience practicums in students' home communities over the fall and winter. Our intent in designing the program was to allow more students to remain in their communities, rather than uprooting their homes, families, and lives for the duration of their degree. In this sense, we wanted the program to attract more mature members of the community who had familial and community ties, in hopes that they would remain long-standing teachers in their home communities.

The alternative online programmatic approach to offer a Bachelor of Education is in direct response to the ongoing global challenge of attracting and retaining teachers for rural and remote areas (Canter et al. 2007; West and Jones 2007), and Canada is not immune to these issues (Alberta Education 2013; Nova Scotia Department of Education 2012; Ontario Ministry of Education 2008; Saskatchewan Learning 2007). Although teacher shortages in rural and remote areas are historical, in recent years the challenge has become worse (Interorganizational Committee on Teacher Supply and Demand 2002; Kitchenham and Chasteauneuf 2010; Northern Alberta Development Council 2010). There is high teacher turnover in very rural and remote areas (Looker and Bollman 2020), and the constant challenge of teacher recruitment "affects the delivery of quality educational services in rural and remote areas including reserve schools" (Mueller et al. 2013, para. 1). Solutions perceived as radical within the political and educational community are required (Dibbon 2001). As recommended by the Northern Alberta Development Council (2010), communities need to prioritize local teacher recruitment by "growing our own teachers" (p. 11). One way to do just that is to allow students to stay in their communities for preservice

[1]We acknowledge the meaning of the terms *rural* and *remote* as contested, and the lines that differentiate them can sometimes be blurred (Corbett 2020; Eaton et al. 2015; Looker and Bollman 2020). For this chapter, we consider rural to mean those areas outside urban boundaries (Northern Alberta Development Council 2010) and adopt the notion of remoteness broadly and inclusively within the frame of rurality (Corbett 2020).

teacher education through a blended delivery approach, thereby increasing access to potentially qualified individuals who might not otherwise be reached. The aim is not only to support communities in rural and remote settings, but also to acknowledge and support Indigenous communities who historically have not been part of the broader conversation about rural education (Scott and Louie 2020).

However, resistance to this solution is strong. Some critics are skeptical that teacher education can be delivered effectively in any format other than face-to-face instruction (Eaton et al. 2017; Huss 2007). Other research has indicated that university instructors may be resistant to provide online instruction (Chelliah and Clarke 2011; Downing and Dyment 2013). In addition, administrators in charge of hiring have expressed their reluctance to hire students graduating from online or blended programs (Faulk 2010; Huss 2007). This resistance suggests that care must be taken in the creation of a community-based preservice teacher education program to ensure that instruction is delivered effectively, instructors are supported, and the degree is regarded as robust enough that hiring personnel would accept graduates.

In light of these criticisms, we investigated access to preservice teacher education and the perceptions of instructors and students on blended preservice teacher education. We aimed to shed light on how a blended program of instruction may better respond to rural teacher shortages by attracting and targeting rural students who already live in those communities, and still remain largely in their local community during the duration of their degree. Given this overarching aim to reconceptualize how teacher education might be more responsive to the needs of those who live in rural areas, our research was guided by the following question: What do instructors and students perceive as affordances and challenges within our community-based blended online Bachelor of Education program? Participants included undergraduate students and faculty members who were part of the initial cohort.

In this chapter, we share details about the community-based program we developed and how we tracked student and instructor experience over the first two years of the program's existence, focusing on student and instructor experience. Results were categorized under four key themes with regard to how instructors and students perceive the affordances and challenges of the blended instruction model. First, students and instructors identified the need for a strong relational component to create a supportive learning environment. Second, students and instructors indicated that a robust program design was critical to ensure that graduating students would be recognized as having the essential competencies required by prospective employers and the broader teaching certification board. Third, students noted both challenges and affordances in the use of technology in the online courses. Finally, instructors and students commented on the challenges imposed by institutional barriers. These findings highlight the possibilities and challenges of a blended preservice teacher education that reaches students in rural and remote areas. We conclude with cautious optimism about the possibilities for teacher education for rural and remote students.

2 Relationality

One of the overarching themes that emerged was to ensure that a sense of community, or relationality, is promoted and sustained throughout the program. Relationality can be defined as the fostering of strong interpersonal connections (Wubbels et al. 2012). Yet integral to the notion of relationality is not simply one of connection; the quality and interconnectedness of those relations matter. “Human beings, because they are social creatures, require the right kind of social structures to provide the habitat in which they can flourish and this is supplied by the community in which they live and work” (Talivaldis Ozolins 2017, p. 363). A general assumption exists that effective teaching necessarily must start with relationality. The quality of the interpersonal relationships in the classroom and affective connection between a student and teacher are necessary preconditions of learning, and, more broadly, what it means to be human.

As part of that cultivation of relationality among individuals and communities, educational institutions have traditionally been entrusted to foster and cultivate those dispositions among students and in the relational bond between teachers and students. If there is a conscious and purposeful attentiveness to foster relationality in schools, then a requisite responsibility and duty to model and foster those dispositions in a teacher education program seems essential (Kriewaldt 2015). It is thus a fair concern that if relationality is at the heart of teaching, then any shift in the way that teacher education programs foster relationality needs to be done with purposefulness and intentionality. With this in mind, however, there is also a balance that an inevitable tension exists in the context of rural education. The concern is that the more locally responsive and relational rural educators are in defining themselves as distinctive from urban-centric educators, the greater the struggle for legitimacy may be on a larger stage (Corbett 2020).

Of primary concern in the conceptualization of this program was whether a blended learning environment, and particularly those courses that were offered online, would seriously compromise the ability to foster relationality among students. This paralleled the initial concerns of students and instructors who expressed uncertainty as to how the university would create a sense of relationality within the online courses. For instructors, one of the significant concerns in moving to an online mode of instruction was that the vitality and the incidental, informal, and ongoing interactions found in a classroom may be lost.

Face-to-face classroom environments offer the potential to demonstrate, model, and engage pedagogical approaches that are embedded within the particular course. Part of the learning process is being attentive and responsive to the nature of the conversations, watching individuals’ body language, or creating meaningful activities to solidify a particular concept. Some instructors rightfully questioned how this context might be achieved online. Louie, an instructor in the program, noted the importance of modeling:

> I think a lot of teaching in the Faculty of Education is about modeling as well. You’re modeling how to teach in your classroom every day, so I think about the course I teach, and

> I thought about how you would … model those ideas [online]. … I think that's much harder to achieve online.

From Louie's perceptive, the traditional approaches to teaching about relationality in the classroom are of central concern. For him, the challenge is how an instructor might replicate how individuals approach their own teaching practices in schools given the limitations that an online environment might pose. In an online environment, the ability to observe, engage, and practice those implicit and explicit pedagogical approaches that enhance relationality and inclusive learning environments may be limited and needs to be addressed in a different way. These assumptions weighed heavily in the design and implementation of the program.

The nervousness about relationality was at the forefront of the minds of rural students, too. They wondered how an online environment could create an ethos of belonging that one might assume occurs in a face-to-face environment. Of particular concern was how instructors would get to know them, and further, how they would connect and bond with other students who were geographically distanced. Jen, for instance, stated, "I think a disadvantage for [the instructors] is they don't get to really see us, or know if something's personal going on, or so they don't really get that connection." For Jen, relationality was tied to the physical presence of being with the instructor and the nuanced understanding of looking for nonverbal body cues to know when an individual might be overwhelmed or distressed. Jen was apprehensive that this aspect may not come across or be easily identified by an instructor who is present only by means of electronic communication, whether written modules or video chats.

In later focus groups, even after receiving the first few courses during the summer on-campus residency, some students continued to question how one could create a sense of community and the specific aspects of relationality in an online environment. They wanted to understand how instructors would facilitate communities of practice in the online setting when they could not physically model pedagogy in traditional face-to-face formats. Frieda, a student, said,

> Assignments … may be easier to do in class, in a face-to-face class, where[as] it's a little bit trickier to do with us online. … We've been doing a lot of in-class little side projects, and that, you might not be able to do that online.

Although the concern of feeling disconnected and isolated is both real and tangible, our findings reveal that the students and instructors gradually felt a stronger relational aspect than they had originally anticipated, although it presented itself in different ways. For instance, Esther, a student, compared her previous experience attending a different residency-based program to that of the current blended program. She commented, "We have a lot more support with this program than I have in past post-secondary institutions on campus. Here I feel that I'm not just a number. The staff actually know my name. My classmates know my name." An interesting manifestation of relationality occurs not in the physical presence, but in the attention of being known in a small cohort of instructors and students. Esther is not lost among a large group of students who may be physically present in a lecture hall, but quite anonymous. In this sense, Esther came to realize that attending lectures on campus

is not a guarantee of relationality; rather, relationality comes from the attention to the interconnectivity among individuals whether that is face-to-face or online.

The intent to make relationality a priority was expressed by Mike, an instructor, who said, "[To build] capacity is [to] make connections with the community students." Given the heightened concern about students who may feel isolated in an online program, Mike was purposeful in how the lessons would enhance the interpersonal connections. This element was not simply taken for granted or happenstance, which is sometimes the case in a traditional higher education setting.

Georgia, another student, took up relationality in a different way, not simply considering her interpersonal connections to other students in the program but drawing from her own community. She reflected,

> So, it's not like we're out in the middle of nowhere by ourselves. We have all these resources and a community that's encouraging us and helping us. Because just from talking to some of these ladies [other students], I know that they have very encouraging people behind them as well in the community.

There is a heightened vulnerability and fear about coming to university, particularly as mature students. Many students in this cohort came from remote areas with small populations, so there was an internalized pressure not to let the community down and not to fail. Yet Georgia saw the community as an opportunity to find moral support and encouragement in her journey as a university student.

Relationality emerged initially as a challenge and later as an affordance. Despite initial concerns expressed by both instructors and students, students found that they were more visible and connected to their peers and instructors than they had expected. They knew their fellow students and instructors and had a strong sense of being in the program together. As well, students noted a more nuanced conception of relationality that went beyond the internal programmatic aspects of their courses. They came to consider how their own community supported them and provided the connections that may have been lost had they moved to a larger urban center to enroll in a teacher education program. They concluded that relationality occurs beyond the parameters of the class; it occurs in the supports and networks that surround the individuals in and around their localities.

One's place and location foster the relationality of feeling by demonstrating connection to both one's program and one's own community. For instructors, addressing the heightened concern about the loss of relationality present in a traditional classroom required intentionality as to how relationality might look and feel in an online setting. There is also an important cultural depth to consider other ways of relationality, which is attentive to the community of origin (Martin 2020). This is particularly the case in creating welcoming and safe spaces for Indigenous students who have previously felt marginalized and unwelcome (Scott and Louie 2020).

3 Program Design

The degree to which the program is perceived as credible and reliable in training teachers was highlighted by students and instructors as critical to its long-term vitality and to the success of its graduates. External stakeholders and the broader community need to see the program as robust in comparison with other teacher education programs. If superintendents and principals feel that the program does not develop strong emergent teachers, then the aim to encourage more rural individuals to become certified teachers will ultimately be undermined. There is a vulnerability and external gaze both within the province and beyond given that the program delivery is different. If the degree is perceived to be of lesser quality, then it is a reputational risk for the institution. Moreover, it places graduates in an unenviable position when seeking employment.

Reservations from students about attending this new delivery of program were notable and palpable. Students expressed concerns that online education had connotations of being less rigorous. Hana mentioned, "I'm certain when our diplomas come in, they're not going to say 'online,'" indicating that any diploma labeling an online program would be viewed with disdain. There is a vulnerability about enrolling in a new program that has yet to be vetted and worry about how the degree will be received by the school districts. Frieda elaborated, saying, "One of my concerns, even applying for it too, was how it would be perceived. As someone taking it online. Like, when I get hired, would principals and superintendents see it was something less because it was taken online?"

These concerns, expressed at the beginning of students' time as a cohort, stemmed in part from the novelty of the program. In fact, Georgia, a student, referenced that novelty as another insecurity around rigor: "I'm a little worried that it's a brand-new program, so what if two years down the road they're like, 'This isn't working, we're scrapping this,' and we're all left with half of a degree?" Georgia's concerns allude to the long-term sustainability of a program. The personal investment and risk to apply for a program is compounded by the lack of a long-standing track record of success at the institutional level. However, Ester saw the potential that an investment in community would bring over time:

> Being rural though, too, I think that where we're hoping to get hired, our community and everyone, they know us well enough that I think once they see that this program is awesome, this teacher is amazing, and that word spreads, I'm hoping that just builds the reputation for it.

Students voiced concerns that the program would be considered less robust than an urban face-to-face program and noted the heightened scrutiny that the program would have from the outside. In many respects, the students sensed being guinea pigs, wishing for the intended outcomes that the program promised but also recognizing the great risks on a personal and collective level if the program did not live up to its promises.

Instructors shared similar concerns. Louie, an instructor, said, "When people hear any kind of newly developed program, they think it's going to be watered down."

If the online program was perceived to be parallel with that of a correspondence course or a degree program that simply grants degrees, then there would be a strong reputational risk for the institution that students could simply “buy a degree.” Louie also noted, “It’s important for the people in [rural] schools to see the rigorous nature of this program.” The assurance that the program would have depth is not simply to be realized by the students; schools also need to understand and appreciate how students are being supported and challenged as future certified teachers. Rose, an instructor, addressed the need to “do some curriculum mapping once we’re done our initial versions of the courses, to see if we really embedded rural content.” Yet, like the students, instructors could see strengths within the program, which attracted many students with previous classroom experience as educational assistants (Danyluk et al. 2020). Louie noted, “The theories that we talk about in class, they already understood those from a practical perspective because they’ve been in the classroom for so long.” At best, students’ previous experiences working in school administrative support roles helped in their transition back to university life. At worst, it may create particular power structures at the local community level in how these students negotiate between their roles as students and their professional roles in the schools (Stelmach 2020).

4 Technology

Challenges and affordances with technology emerged as another key finding. Students worried about connectivity and access; instructors worried about their own or their students’ technical knowledge. Affordances became evident when instructors were asked about strong aspects of their online courses.

Students shared initial concerns with connectivity issues. Donna noted, “A lot of us are in rural Alberta. We’re not going to have service all the time for whatever dumb reason—tornado alerts.” Hana shared similar concerns, saying, “We get power outages, and … you can phone [the power company], and they’ll say, ‘Oh, they should have power on between this time and this time.’ And they give you about an eight-hour span sometimes.” Although provinces such as Alberta have made significant attempts to ensure broadband coverage in every locality, some of the most remote areas that are located in valleys or mountain ranges may still experience connectivity challenges. These challenges lie outside of the control of the program designers but remain an important consideration.

Instructors recognized different challenges with technology. They noted students’ lack of comfort with using technology that urban students might be assumed to have. Jill, an instructor, said,

> A high school student probably knows [more] coming into university. These people, they don’t have that knowledge of how to use D2L [an online learning platform], how to find an article online, how to use Adobe Connect. Maybe even, in some cases, [their] computer skills might not be really up to date. So, the learning curve is quite steep for some of these students.

The instructors’ starting assumption was that urban-centric students had more varied technological skill sets than the rural students in the program whether that assumption was warranted or not. A further assumption was that providing programs to rural students placed a heavier burden on the faculty to set up a structure that would create student success. The age of the students factored into their comfort level with basic technology, one that was lower than foreseen from a programmatic perspective. Instructors were ill prepared for some students’ lack of understanding of basic operations on a computer or the Internet. Students who had not grown up with computers did not know how to navigate to build their capacity. Not all students faced this barrier, but their ease with technology commonly determined their experience in the program.

Once addressed, some of these challenges were then seen as affordances. Jill, an instructor, experimented with technology to create active learning online so students could engage with the content and with one another. She pointed out,

> I tried to do the video, so [I] tried to be there somewhat in person talking about whatever was upcoming that week. I tried to do the news items on a weekly basis, the PowerPoints, commenting on their postings. I think I am probably more encouraging than I would be with students that were here [on campus].

In this response, Jill described practices that helped her to differentiate learning other than what she might normally do in her face-to-face classes. Mary, another instructor, agreed: “Online learning, you just—you have to be clear in a very different way.”

Although connectivity and access are outside of the control of the students and instructors, the findings revealed challenges around students’ and instructors’ technical knowledge that is key to addressing the needs of students in a blended program. The most surprising finding was the vast spectrum of students who had either no or limited use of technology prior to commencing the program.

5 Unanticipated Barriers

Understanding that mobility and financial costs are often barriers for rural and remote students to enroll in an urban-based university program, the program was created to respond to these long-standing obstacles through blended instruction. However, internal and external institutional policy issues were revealed as substantive barriers. Specifically, these barriers included how online courses are taught in other institutions, how financial assistance is determined, and how student supports at the university are distributed. Emerging from these institutional challenges was a sense that faculty members would need to play a greater role given the institutional lags in supporting these off-campus students.

Students in the blended program who do not enter with transfer credit or a previous bachelor’s degree must take some of their coursework from other faculties to fulfill their disciplinary requirements. Given that few online courses are offered by the

home institution, students took alternative online courses from other institutions. One concern was the differing expectations and institutional supports for students who were enrolled in online programs. Jim, a student, noted, "We come off a course [from this institution] and then with a course [at another institution]." Students also noted a spectrum of support and quality. Jane, a student, elaborated: "I think that [our education] professors showed it was possible [to have engaged online learning]. … There was a lot of variety. At [the other institution] you're sent a box; … you're self-directed."

The education courses were taught drawing upon synchronous and asynchronous learning, which enabled the students to remain in cohorts and feel a sense of connectivity by having regular classes online. In contrast, the students reported that taking other courses through various institutions resulted in feelings of isolation or frustration with the quality of instruction. Specifically, students were not prepared for the correspondence approach that was dominant from other institutions. Students did not attend a synchronous online section, in most cases, and there was little ability to find connection or belonging among the students or with the instructor. The contrast was notable, commonly creating significant dissonance in the quality of the overall program.

Existing financial models were a further challenge. First, a Canadian university's base funding from the government is determined on a student's full load equivalent (FLE). However, FLE presumes a student is at only one institution for the whole academic year. This determination results in two problems. First, there is a disincentive for potential partnerships and cross-collaborations in the design of a program with students who enroll in multiple institutions within a year or semester. Second, the students themselves are not seen as full-time when they are enrolled at multiple institutions, which creates significant difficulties to secure student loans. As well, spreading out the courses over the year, with some taken at the students' local colleges, commonly meant that students did not qualify for scholarships or bursaries as they did not hold full-time status from one designated institution. Mike, one of the program coordinators, mentioned this particular frustration: "They are not actually [our] students in the winter, so they're not listed as full-time students, so they're not able to apply for some of the scholarships that are available." In light of students enrolling in courses at multiple institutions, Mike noted that a goal is to develop internal bursaries and scholarships targeted to these students, which "might give them freedom to take more time off work." The current financial models result in limited institutional collaborations and force students to work while undertaking full-time studies, thereby potentially impacting both the rigor of the program and the success of students.

Student supports geared toward on-campus students presented another challenge. The barriers of not being on campus, and not "adding up" to full-time status, meant that the community-based students did not qualify for many of the supports and services offered to other students. Rose, an instructor, learned that students in the program were required to pay student union fees, which included a dental plan, but were unable to access the coverage given that there were no eligible dental providers in the rural areas. Yet they could not opt out of dental coverage as it was bundled

with their health plan, which they could use. As a result, program administrators had to advocate for students to be able to opt out of this service. Other benefits such as subsidized use of the gymnasium and reduced fares for bus passes were not available to the community-based students despite them paying for these allowances in their student union fees. Additionally, student writing services personnel had not considered how they might provide support for students at a distance, so instructors had to advocate and even facilitate online writing support. These challenges are illustrative of the multiple aspects of university supports that are commonly set up with the on-campus student in mind.

Given the structural challenges of trying to create a blended learning model that has traditionally not been implemented in undergraduate programs, with a nonstandard scheduling pattern in the summer, fall, and winter, internal supports and workarounds have been common and ongoing to ensure that students receive care comparable to on-campus students. In this way, advocacy from administrators and coordinators was an affordance that surfaced during this research into the program. Program creators were largely unaware of the systemic institutional structures that were limited to the traditional urban residency-based student, and thus the program was ill equipped to deal with them. Advocacy helped to mitigate these challenges.

6 Discussion

From these initial findings, three key themes emerged for further consideration. First, although anxiety about relationality was prominent, expanded notions of interconnectedness beyond implicit assumptions of physical presence were observed. Second, technological barriers are a continual challenge given the spectrum of learners' comfort, compounded by variable Internet connectivity, when robust interactive online learning experiences demand a stable and strong Internet connection. Third, internal programmatic supports were necessary to compensate for a lagging central university system. Let us turn to each accordingly.

One of the most surprising findings was the shifting nature of how relationality was redefined and reconceived particularly when students began taking online courses. A common implicit assumption is that meaningful forms of relationality require face-to-face interactions. The nervousness of administration to hire teachers who are enrolled in online courses (Huss 2007), and teacher unions that echo this reservation about teaching, work on this assumption that relationality can *only* be conducted in the physical presence of another person.

Initial findings from this research suggest that face-to-face on-campus courses do not necessarily ensure that relationality is cultivated, nor is it impossible to foster in online courses. The purposeful attention to promote relationality—the emotive and affective components of relationality—with empathy, care, and reciprocity to the relational and connected aspect as a condition of the human spirit remains unchanged (Bamford and Pollard 2018). Just as an on-campus course may minimize or undermine these dispositions, so too can an online course. We contend that the

distinction of whether relationality can be cultivated does not hinge on whether there is a physical presence, but rather on whether relationality is at the core of the learning environment.

As research participants pointed out, in some cases the power differentials experienced in a face-to-face environment may actually reposition the dynamic in an online environment where there are moments of pause and attentiveness to both oral and written language given the mode of instruction and learning. For instance, there is a potential and heightened vulnerability in the permanence of words in an online platform. These vulnerabilities have ironically led to a closer communal bond among students knowing that their written communication has the power to either lift up or devastate. They are all supporting one another in the program.

Of particular significance is whether the learning environment creates an invitation for individuals to be reflective and exhibit aspects of care in their interactions with other individuals. In this instance, given that students remain in their local community, many noted that relationality went beyond the walls of the classroom: They connected not only with their peers and instructor, but then connected with others in their own communities. The artificial construction of the university classroom blurs the interconnectedness of individuals who must understand and negotiate their multiple connectedness and identities. In the process of the changing power, differentials found between a face-to-face and online learning environment, the public and permanent nature of the written posts online, and the limited ability to watch for nonverbal cues, increases program participants' attentiveness to their own ethical responsibilities and the care that they must exhibit to themselves and others. "Throw away" comments one might make in a classroom seem to be reckless in an online setting. The attentiveness to one's words, and one's ability to hear multiple voices through the online platform, reshapes the ways in which communities of practice are formed.

The second key theme that arose moves beyond the relational aspects toward more pragmatic considerations of whether the design of a blended program can maintain the quality and engagement necessary for developing key identified teacher competencies necessary for certification. The pragmatic considerations of the technological aspects of the program highlight the barriers for students who wish to engage in the course and for instructors who may be impeded by the inconsistent technological support in the various areas. Four interrelated aspects of technology emerged as key considerations, two of which pertain to individual human technology literacy and competence, and two of which pertain to technology systems (see Table 1).

The integrated aspects of technology may model how teaching may be possible in robust ways if done well. For instance, as rural schools increasingly provide online subject offerings when there is a scarcity of local resources or subject expertise, the online provision for instructors to model pedagogic practices to preservice teachers provides the potential for modeling divergent ways of teaching and learning. However, given the spectrum of bandwidth in particular rural and remote areas, instructors are attentive to the current limitations of providing interactive sessions during synchronous online classes. This is problematic given that the learning environment may be precarious in any given moment and may create a reluctance for instructors to explore more active forms of learning if the learning hinges upon

Table 1 Four interrelated aspects of technology for rural teacher education

Broad categories	Notes
Individual technology considerations	
1. Student technical literacy and competence 2. Instructor technical literacy and competence	Students and instructors build their levels of technical competence and comfort as they engage with a variety of technologies used in online teaching and learning
System and infrastructure considerations	
3. Learning management system limitations	Both asynchronous and synchronous systems have limitations. Instructors and students learn to work within imperfect learning environments
4. Connectivity	Internet connectivity, coupled with connection speed and stability, can create limitations beyond the control of students or instructors

the technology. As a recommendation, instructors require support and mentorship around this pragmatic consideration, to be creative to the pedagogical approaches in an online learning environment with flipped classrooms, virtual manipulatives or case studies, and an attentiveness to provide multiple modes of student engagement. Arguably as important, however, is an attentiveness to the external factors that may compromise the online platform regarding the connectivity issues and continued technological support to students during and after their online synchronous learning times. Of paramount importance was the sense that students would feel comfortable with accessible and user-friendly online platforms and continual support.

An unanticipated challenge, however, was not the delivery of the program or the quality of the students. Rather, it was completely unforeseen how an alternative delivery of the program would challenge and disrupt the central infrastructure at an institutional level. And arguably, online learning may be perceived as a threat to the traditional power structures of universities on multiple levels. Policies, regulations, and practices that underpin the way in which support is offered to students centrally and how students receive financial support were unforeseen barriers. The traditional classrooms of urban campuses have been attentive to providing student supports centrally. The supports range from wellness, academic success, career progression, opportunities for experiential service learning. Student fees often support these initiatives with discounts on pricing for the use of facilities, transportation in and around campus, and medical services. Finally, the distribution and criteria for University awards, bursaries, and scholarships were modeled on the full-time residency student.

In almost every case, students encountered barriers to access of these central services. Counseling and wellness were limited to those within the urban area. Academic support services commonly required face-to-face drop in sessions. Financial aid of any kind was based on a traditional fall/winter full-time timetable. In each of the cases, the nature of these nontraditional mature students could have readily

needed many of these central supports, yet none were available. As a short-term fix, internal faculty processes were put in place to provide extra student support where there were institutional gaps.

Yet, the nature of the blended program revealed barriers to broader issues of equity and access not only for the students in this rural program, but also for other students who may struggle to make use of the support services that require students to be on campus during regular work hours. It highlighted a broader need that has long been an arguable gap in how higher education institutions address adult learners (Spriggs 2018; Thiel 1984). It is a compounded problem in that nontraditional students who reside in rural areas are already anxious about entering post-secondary education and may struggle to navigate what supports are in place during their degree. When students actively seek the various services, they find that the services either do not extend to them, or that the parameters of the services make it virtually impossible to access them. In this case, the overarching aim of the program to be responsive to the needs of rural students is undermined by the institutional infrastructure that has not yet caught up to the alternative provision of programming. Attempts to create makeshift supports internally within the faculty may provide short-term solutions, but may overly burden a faculty. While students may be appreciative of the efforts within the faculty, it presents a large sustainability issue of whether a faculty can provide the necessary student services in-house.

7 Conclusion

Blended instruction holds the potential to reach students in their rural communities with quality preservice teacher education. However, there is still debate as to whether preservice teacher education can effectively be offered in formats other than face-to-face instruction. This research is significant as it works to address equity and access while also investigating the concerns surrounding blended instruction in teacher education. This study sheds light on the need to effectively work to address the challenges that arise in the provision of a blended teacher education program. Preparing preservice teachers from rural and remote communities for teaching in those communities involves bringing preservice teacher education to them in meaningful ways. This education requires a carefully constructed program, driven by both intentionality and sound pedagogy. Through this study, we provided a relevant foundation upon which to base blended teacher education programs: programs that will reach a new generation of teachers, whose preservice teacher education is robust and meaningful, and whose instruction prepares them for their future professional contexts.

The alternative approach to be more responsive to the demographic nature of the program, however, interrupted larger discourses about the nature of university and how our own space at the university might be constructed differently that would shift who was privileged and represented. While the program was largely instrumental to reduce some of the perceived barriers that were dis-incentivizing individuals from

attending urban-based universities, it called into question the nature of the university and the institutional and systemic structures that had supported only a portion of the students who fit the traditional mold. Shifting when courses were taught, how they were taught, not only addressed the barriers facing rural students, but also challenged our views of the struggles that many other students may face as mothers, mature students, and minoritized populations.

The blended online portion also expanded the scope of what relationality entails beyond the face-to-face. It disrupted our preconceptions that face-to-face classes necessarily created community, and online forums were a less desirable compromise. And yet, the nature of the online forums created unintended spaces for individuals to listen, be mindful, and purposeful in the connections that they were making. The power dynamics shifted from the loudest individual. The social media created opportunities for having a range of voices heard. And the notion of time shifted so that students could have the time to reflect and respond thoughtfully to the discussions, not constrained by the confines of the class time. In this way, it shifted our own conceptions of the nature of the university, and the purposes that it serves, and who it privileges.

In the short term, there is a cautious optimism that the alternative provision of teacher education will be attentive to address the perennial high turnover and shortage of qualified rural teachers in Alberta. Early indicators suggest that recruiting interested individuals who reside and remain in those rural communities may hold the key for rural school districts who continue to grapple with finding teachers who are qualified and committed to staying in their own communities The most concrete measure to assess the effectiveness of this program will be to visit these graduates in their rural classrooms 5–10 years down the road.

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