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If You Choose Not to Decide: A Survey of Online Field Experiences for Canadian Teacher Preparation Programs

Si vous choisissez de ne pas prendre de décision : une enquête sur les expériences de terrain en ligne pour les programmes canadiens de préparation à l'enseignement

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See table of contents

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Article abstract

Despite the rapid growth in online and distance learning in Canada, there does not appear to be much interest on the part of teacher education programs to evolve to meet the needs of future generations of teacher candidates. While understanding the notion that systemic change in tertiary education takes time, the steady growth of online and blended learning in Canada–and globally–combined with raised awareness of distance learning stoked by the COVID-19 pandemic should make educators and policymakers worry about failing to respond to a rapidly changing educational landscape. This paper highlights the status of distance and online field experiences provided by Canadian teacher education programs. In addition, we review program offerings to support in-service teachers, such as graduate certificate, degree, and diploma programs, as well as MOOCs offering free professional development. This study, a replication of a mixed-method study originally conducted in the United States and published as a technical report by Archibald et al. (2020), found that a minority of teacher education programs offered online or blended field experiences. Further, we found that programs were slow to change these deficiencies due to institutional lack of resources, limited knowledge base, perceived lack of usefulness for their teachers' future careers, and regulatory bodies discouraging online field experiences. This study highlights the dramatic need for programming in distance and online education.

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Abstract

Despite the rapid growth in online and distance learning in Canada, there does not appear to be much interest on the part of teacher education programs to evolve to meet the needs of future generations of teacher candidates. While understanding the notion that systemic change in tertiary education takes time, the steady growth of online and blended learning in Canada–and globally–combined with raised awareness of distance learning stoked by the COVID-19 pandemic should make educators and policymakers worry about failing to respond to a rapidly changing educational landscape. This paper highlights the status of distance and online field experiences provided by Canadian teacher education programs. In addition, we review program offerings to support in-service teachers, such as graduate certificate, degree, and diploma programs, as well as MOOCs offering free professional development. This study, a replication of a mixed-method study originally conducted in the United States and published as a technical report by Archibald et al. (2020)[1], found that a minority of teacher education programs offered online or blended field experiences. Further, we found that programs were slow to change these deficiencies due to institutional lack of resources, limited knowledge base, perceived lack of usefulness for their teachers' future careers, and regulatory bodies discouraging online field experiences. This study highlights the dramatic need for programming in distance and online education.

Keywords: K-12 distance education, pre-service teacher preparation, teacher education

[1] This article is original, with some exceptions in the "Results" section.

Résumé

Malgré la croissance rapide de l'apprentissage en ligne et à distance au Canada, les programmes de formation des enseignants ne semblent pas suivre la tendance, ce qui permettrait de répondre aux besoins des futures générations d'enseignants et d'enseignantes. S'il est vrai que les changements structurels dans l'enseignement supérieur prennent du temps, la croissance constante de l'apprentissage en ligne et mixte au Canada et dans le monde, conjuguée à la prise de conscience de l'importance de l'apprentissage à distance suscitée par la pandémie de COVID-19, devrait sonner l'alarme auprès des éducateurs et des décideurs relativement au fait qu'ils n'arrivent pas à répondre aux besoins d'un secteur qui évolue rapidement. Cet article fait le point sur les expériences pratiques à distance et en ligne proposées par les programmes canadiens de formation des enseignants. Nous passons en revue les programmes destinés à accompagner les enseignants en exercice, tels que les programmes de certificat, d'études supérieures et menant à un diplôme, ainsi que les MOOC, qui offrent un perfectionnement professionnel gratuit. La présente étude, qui reproduit une étude à méthode mixte menée à l'origine aux États-Unis et publiée sous forme de rapport technique par Archibald et al. (2020), a révélé qu'une minorité de programmes de formation des enseignants offraient des expériences pratiques en ligne ou mixtes. Par ailleurs, nous avons constaté que les programmes ne remédiaient que lentement à ces lacunes en raison d'un manque de ressources institutionnelles, d'une base de connaissances limitée, de la faible utilité que les futurs enseignants et les organismes de réglementation leur accordaient, ce qui décourage les expériences de terrain en ligne. Cette étude met en évidence le besoin considérable de programmes dans le domaine de l'enseignement à distance et en ligne.

Mots-clés : enseignement à distance de la maternelle à la 12e année, formation initiale des enseignants, formation des enseignants

Introduction

Distance, online, and blended learning[2] have become an integral part of the educational options at many higher education institutions and in many K-12 schools. Large-scale surveys in the United States (US) have shown the consistent growth of online education at all levels (see Allen & Seaman, 2013; Seaman et al., 2018). Within the Canadian context, the number of K-12 students engaged in distance, online, and blended learning in Canada has also increased significantly. In the past decade and a half, the number of Canadian students enrolled in distance and online programs grew from less than 140,000 students in the 2008-2009 school year to more than 360,000 students in the 2022-2023 school year (Barbour & LaBonte, 2023). The estimated gains in enrolment have been even more dramatic for blended courses. While the K-12 digital learning data from the US is more difficult to quantify, the latest *Snapshot* report from the Digital Learning Collaborative (2024) states that "it is clear that the pandemic greatly increased digital learning activity temporarily—even beyond emergency remote learning. It is also clear that only some of that increase has been sustained" (p. 1).

[2] There is little agreement on terminology within the broader field of K-12 distance, online, blended, hybrid, and/or flexible learning (Barbour, 2019). In this manuscript we used the term(s) used by the authors themselves, and in instances where the decision was ours, we have used K-12 distance, online, and blended learning as a generic term to refer to broader activity in the field.

This reported growth discounts the reality that the educational world was turned upside down by the COVID-19 pandemic. Within weeks, schools had to pivot from traditional methods to a mix of online and correspondence methods referred to as "emergency remote learning" (Barbour et al., 2020; Hodges et al., 2020). Arguably every teacher and student across the country unfamiliar with online and blended learning experienced pressure to massively overhaul their teaching practices at the end of the 2019-2020 academic year, which for many continued during the 2020-2021 school year. Despite decades of growth, the pandemic exposed how unprepared and unfamiliar the majority of the K-12 ecosystem was when it came to online learning. While the initial switch to remote teaching was a patchwork endeavour, where student learning was understandably affected, effective online teaching the following year could not be achieved with a few summer workshops.

As we emerge from the pandemic, there is a desire to return to pre-pandemic ways and means, and, for many, online learning is not something that they will miss. However, the trajectory of online growth will resume, and so will the need for teachers who are better equipped to teach in this medium. Hodges et al. (2022) described a vision and multi-step plan for meeting this need. These steps involved proper financial support of research initiatives to create effective methodologies and guidelines that could be implemented and assessed in teacher training programs, as well as preparing educators for virtual instruction by offering hands-on experience in crafting, presenting, and guiding online lessons – ideally while forcing them to participate as students in online learning environments themselves. The authors recommended embedding online experiences for pre-service teachers (i.e., those individuals engaged in a teacher education program prior to beginning their career as a teacher, as opposed to in-service teachers who have completed their initial teacher training) including taking online courses and participating in field experiences. In addition, they advocated for the adoption of research-based online teaching standards and metrics for measuring growth with these standards. Their vision culminated with the addition of online learning experiences as a requirement for accreditation of a teacher preparation program.

In the US, finding online field experiences is rare. Kennedy and Archambault (2012a) found that only 1.3% of US teacher education programs were preparing pre-service teachers for online learning by providing field experiences in virtual schools. A follow-up study five years later found that that figure had increased to 4.1% of the responding teacher education programs (Archambault et al., 2016). The purpose of this study was to identify and describe the status of Canadian teacher education (i.e., pre-service and in-service) and their associated field experiences in K-12 distance, online, and blended learning prior to the pandemic. Using a mixed-methodology approach, survey data were collected that describes the state of field experiences based on responses from deans and directors of education faculties across Canada. This research will add a Canadian perspective to this American-focused literature to date (e.g., Archambault, 2011; Ferdig & Kennedy, 2014; Kennedy & Archambault, 2012a) by describing teacher preparation for K-12 online and blended learning environments and providing a much-needed snapshot of the Canadian context.

Literature Review

Teaching in online and blended environments are, on one hand, similar to traditional in-person teaching. On the other hand, it seems intuitive that one would require a set of specific skills for teaching students when you rarely see them in person, if ever. The differences between in-person and online teaching became apparent in March 2020 when schools suddenly switched to online learning, and that shift was clearly not fluid (i.e., if online and in-person teaching required the same skills, the transition would not have wreaked havoc with respect to learning loss, student and teacher stress, etc., on Canada's K-12 system – see Barbour & LaBonte, 2020; LaBonte et al., 2021; 2022; Nagle et al., 2020a; 2020b; 2021).

The problem faced is in identifying those specific skills. For example, online teachers may need to master asynchronous communication skills without ever interacting with their students face-to-face (Friend & Johnston, 2005). They will likely need to combat the feelings of isolation students have when they work through a course alone and establish an online environment where students feel comfortable asking questions (Barbour et al., 2013). Online teachers also need to foster a culture of meaningful online interactions between the students on discussion boards and group assignments and ensure students stay on task. These may be foreign situations to new teachers, and the keys to navigating them successfully are not always evident. Polly et al. (2023) surveyed pre-service and in-service teachers on their perceived usefulness of and competencies with digital tools and found that both groups consistently listed learning management systems and collaborative tools – perhaps the most ubiquitous tools in online teaching – as the most important tools. In addition, Polly et al. found that pre-service teachers rated their competencies higher than their in-service counterparts. The authors posited that their lack of experience in classrooms may have led to overly optimistic views of their capabilities. However, Moore-Adams et al. (2016), in their literature review of K-12 teacher preparation for online teaching, found a deficit of empirical research on the topic. They identified competencies based on the TPACK framework (Koehler & Mishra, 2009), but prefaced their findings with caution since the research reviewed was so varied. Finally, while research in online learning has grown, in their systematic review of online research this century, Martin et al. (2023) found that only about eight percent of journal articles focused on teacher preparation and professional development.

Despite being dated with respect to the advancements in platforms, services, and bandwidth, early empirical work in teacher preparation for online learning provided a blueprint for future studies. Researchers at Iowa State University first developed a set of 10 case studies highlighting exemplary course development as part of a project entitled *Good Practice to Inform Iowa Learning Online* (Davis & Roblyer, 2005). The follow-up to this project, *Teacher Education Goes Into Virtual Schooling*, was positioned to introduce pre-service educators to virtual schooling and the idea of the three different adult roles in online teaching (some of which could be served by the same person): the online teacher, the online course designer, and the in-person facilitator who acts as a liaison between the student and teacher (Davis et al., 2007). With respect to actual field experiences, there are examples for both pre-service and in-service teachers. The University of Central Florida paired with their state virtual school to provide teacher candidates with the opportunity to have a field experience in a virtual setting. Further, both Arizona State University and Wayne State University—as well as others—created graduate

certificates that included virtual field experiences (see Kennedy & Archambault, 2012b; 2013). This seminal work paved the way for improvements in teacher preparation.

Once these distinct skills have been identified, the next logical step is to figure out how to incorporate them into teacher preparation programs. Hodges et al. (2022) listed six events that should occur to better prepare teachers for teaching online. First, a set of research-based online teaching standards needs to be universally adopted. While several collections of online teaching standards exist, they lack the backing of empirical research (Adelstein & Barbour, 2016). Second, validated instruments are needed to ensure that standards are being met (Barbour, 2020). Third, students need to have more experiences as online students to better understand and empathize with their future students (Zucker & Kozma, 2003). While there is a generation of students who experienced remote teaching during the pandemic, a specific experience should be codified in teacher preparation programs. Fourth, teacher candidates should have specific training in teaching online, much like the advent of standalone technology courses as technology became more ubiquitous in classrooms (Irvine et al., 2003). Fifth, teacher candidates need to have online field experiences (Davis & Rose, 2007). Finally, accrediting bodies need to include online learning preparation in their standards (Gedak et al., 2023). To be clear, the authors noted the significant barriers to implementing these steps, most notably the already lengthy teacher preparation process.

Canada's efforts to prepare pre-service teachers for teaching online mirror those in the US. Many teacher education programs embed content on online learning in their standalone educational technology course (Barbour, 2012). They also struggle with the same barriers that Hodges et al. (2022) mentioned, namely the absence of empirically-based strategies (Barbour et al., 2013), and direction from the provincial and territorial governments in the form of standards and mandates (Barbour & LaBonte, 2017). Several exemplars of online teaching preparation include Queen's University, which changed its standalone information and communications technology course to focus heavily on online teaching pedagogy (Barbour et al., 2013), and Memorial University, which housed the Centre for Telelearning and Distance Education from 1999 to 2004 that was home to an undergraduate program that focused on rural education through distance learning (Barbour, 2012), and later the Killick Centre for E-Learning Research to study K-12 online learning across Canada (Faculty of Education at Memorial University of Newfoundland, 2011). Moreover, these programs addressed a preparation need for pre-service teachers, who may or may not have an interest in learning about online pedagogy on top of their other preparation requirements. However, they did not address the need to prepare in-service teachers.

In much the same way that the US has attempted to address training in online teaching (Kennedy & Archambault, 2013), there are several instances of professional development opportunities for in-service teachers through graduate degree and certificate programs described in the literature. Graduate certificates in online teaching were offered at Thompson Rivers University and Royal Roads University (Harrison, 2012), or in the case of Ontario training associated with the Additional Qualification for Teaching and Learning through eLearning (Smith, 2012). Athabasca University offered a broad suite of options, including graduate certificates as well as master's and doctoral programs (Barbour, 2012). Further, Athabasca University took content from their graduate programs and created modular teacher professional development opportunities and massive open online courses (MOOCs) (Blomgren, 2017;

2018). Thus, opportunities existed for all current and prospective teachers to gain knowledge regarding online teaching, albeit on a small scale overall.

Last, there is a growing body of literature on teacher preparation and in-service professional development during the COVID-19 pandemic that is focused on policy changes and reimagining teacher preparation. Van Nuland et al. (2020) described the challenges teacher education faced when schools moved to remote teaching, namely, how to account for lost field experience time and lack of face-to-face interaction, in addition to having pre-service teachers adjust to online learning themselves (i.e., as their traditional coursework moved online as well). Additionally, Johnson (2023) reported that many higher education faculty were challenged with effective online instruction, which further exacerbated the problem. Hill et al. (2020) took this one step further, acknowledging the need to overhaul teacher education to address the needs of students that were highlighted during the pandemic, such as mental health, anti-racism, and equity issues. Farhadi and Winton (2021) conducted focus groups with educational personnel in Alberta and concluded that the pandemic served as a tipping point for many issues with education in general, such as those related to funding, class sizes, and teacher compensation. With respect to teaching online, even those with advanced coursework in educational technology lacked the efficacy under the duress of the issues to teach remotely.

Finally, Woo et al. (2023), in their systematic review of online teacher preparation research, highlighted the evolution of field experience over the past 20 years, especially during the pandemic. The authors stated that while the pandemic created more challenges for the field experience, it also created more opportunities. The pandemic exposed additional issues of isolation for both teachers and students, which signaled a need for teacher preparation programs to teach teacher candidates about building relationships. While teacher candidates generally expressed unhappiness over the restrictions during the pandemic, they came to appreciate the opportunities these restrictions presented to discover new technologies and techniques for instruction. The authors suggested that with the uptick in research on teacher preparation during the pandemic, institutions should now apply those insights when making changes to the preparation process. Examples included preparing candidates for short-term adaptations (i.e., in the face of another pandemic or climate disasters), shorter field experiences in different situations rather than an online experience in addition to a traditional field experience, and further integration of the technology and instructional design into the field experience rather than the traditional standalone technology course. These findings were echoed in the Canadian context by Gedak et al. (2023), who explored how the regulations regarding teacher education in Canada prevented teacher preparation programs from implementing the kinds of experiences that Woo and colleagues (2023) recommended. Al-Ansi (2022) suggested that many of these online tools and strategies will continue to be used by teachers post-pandemic; addressing the issue of preparing teachers to teach online will hopefully be part of a larger overhaul of the teacher preparation and professional learning processes.

To summarize, while research into online teaching and learning has grown, teacher preparation continues to lag in preparing future and current educators for this medium. The pandemic made this deficit apparent and now provides an opportunity to consider how teacher educators and policymakers can adjust programs to improve instruction online, whether it is due to the continued growth in K-12 online learning or the next catastrophe that again forces students to learn remotely. This paper serves as

a first step in the process, a snapshot of what Canada offers with respect to teacher preparation for teaching online.

Methodology

The purpose of this study was to replicate a mixed-methods study originally conducted in the US to examine the provision and support of K-12 e-learning field experiences in teacher education programs (Archambault et al., 2016; Kennedy & Archambault, 2012a). As a mixed-methodology approach with an embedded design, participants were asked to respond to both quantitative and qualitative questions in the survey (Creswell, 2014). In this case, the focus of the embedded design was the quantitative questions which informed about how widespread the adoption of field experiences was at different kinds of institutions in different places. However, the qualitative responses were necessary to flesh out the rationale regarding why faculty and administrators either embraced or avoided offering the field experiences as well as to understand the nature of the field experiences offered.

The assessment instrument used was adapted from one used in a similar study in the US (see Archibald et al., 2020), to adjust for the unique aspects of higher education in Canada and any other cultural differences. The survey was then loaded into a web-based questionnaire format that consisted of 31 questions (i.e., 27 quantitative questions and 4 qualitative questions). Potential participants were identified by a search for the Dean or Director of the Faculty of Education on Faculty of Education websites at each Canadian university and college. A total of 72 potential participants were found at 67 institutions (see Archibald et al., 2020 for a complete list of institutions).

Each of the respondents was sent an email describing the study and requesting that they complete the survey, followed by six reminders over the next seven weeks. Of the 72 individuals contacted, 32 responses were received from 30 different institutions, representing a 42% response rate, which is considered acceptable for web-based instruments (Manfreda et al., 2008; Shih & Fan, 2008). In comparison, Kennedy and Archambault (2012a) reported a 34% response rate, while Archambault et al. (2016) indicated a 37% response rate. It should be noted that Fan and Yan (2010) suggested that online surveys generally have an 11% lower response rate than surveys conducted in other mediums.

We acknowledge that the data in this study was collected prior to the 2020 pandemic. However, at the end of the 2019-20 school year, teachers were forced to manage emergency home-based or remote teaching, and many continued to teach in a remote and/or hybrid fashion throughout the 2020-21 and 2021-22 school years.[3] Given these realities, the results of this study are an important assessment of how well those individuals were formally prepared by their teacher education programs to meet the challenge of designing and/or curating, delivering and/or facilitating, and supporting e-learning experiences for their students.

[3] See Canadian eLearning Network's Pandemic Pedagogy Research (https://sites.google.com/view/canelearn-ert/) for more information.

The data were analyzed by first connecting the location, institution, and background information to the corresponding responses. We were then able to build a picture or case of how different institutions in different locations ran their online and blended pre-service and in-service field experiences (Monk & Howard, 1998). Next, descriptive statistics were used to create simple summaries of the key features of those field experiences (Mishra et al., 2019), and were compared to other experiences to find similarities. Finally, we looked at the reasons for the different programs having or not having and wanting or not wanting a pre-service or in-service program. Respondents' answers often shared common reasoning, and therefore these were able to be categorized into two to four themes. Some responses however corresponded to multiple trends of reasoning, and so those were counted as responses in each trend they referenced. Finally, these trends in Canadian programs' reasoning were compared to the US trends (Archambault et al. 2016; Kennedy & Archambault, 2012a).

Results

As this study represented a "current state" of teacher education and K-12 virtual field experiences across Canada, and we anticipated the dissemination of this study to be of significant value to participants and their institutions, efforts were made to compile as complete a picture as possible from the sample participants.

Respondent Description

A total of 25 out of the 30 respondents indicated their locations, representing all but four provinces and territories (i.e., Nova Scotia, Prince Edward Island, the Yukon, and the Northwest Territories). As might be expected, Ontario (n=10) and British Columbia (n=5) had the highest number of responses. Almost half of university survey respondents were from small institutions (i.e., less than 2,000 students), with a third of respondents representing medium-sized institutions (i.e., between 5,000 and 20,000 students), and a fifth of responses from large institutions (i.e., more than 20,000 students). Finally, the most represented group in terms of the individual completing the survey were placement coordinators (43.8%), followed by faculty (37.5%), coordinators (15.6%), and finally deans (3.1%).

State of Programs with Field Experiences

When asked whether their institution offered field experiences in K-12 online program settings (e.g., guided observations, internships, or apprenticeships) for pre-service or in-service teachers, only 8 out of the 17 respondents indicated that they did – although based on additional questions it appears that these were more focused on blended learning field experiences. One school, from Quebec, also mentioned that through their elementary school partnership, around 200 teachers were annually placed in blended field experiences. Interestingly, two of these eight respondents suggested that the online or blended field experience was a requirement for their institution's teaching degree, and one indicated that it was a requirement for teacher licensure in their province. Only one respondent stated there was a specific time requirement regarding online or blended learning during the field experience, stating that teachers were required to spend four to eight hours a week for four to eight weeks engaged in creating new online course content, evaluating students' work, filling out paperwork, and attending professional

development sessions. Finally, a respondent from New Brunswick described how their program places about a dozen teachers in a blended elementary field experience specific to teaching in First Nation classrooms.

Reasons Programs Do Not Want to Have Online Field Experiences

It is important to underscore that many institutions (55.6%) did not offer field experiences in K-12 online and blended environments to pre-service teachers. Although reasons varied, respondents reported that the main reason was a lack of resources such as funding, management, or human resources needed for student evaluation. The next reason was that the respondents did not currently know enough about these experiences to include them. A respondent from Saskatchewan stated:

> We do provide extensive instruction to students in using digital media and teaching in on-line learning contexts, but as of yet, have not attached a formal internship experience to this, partly because we have not yet fully explored what these possibilities might look like in Saskatchewan.

The third reason provided was that online field experiences had limited usefulness to pre-service teachers' future careers. As an example, one respondent from Ontario simply stated, "at this point in time, there are insufficient career paths to make this a viable alternative to face-to-face field experiences." It is noteworthy that this data were collected only a short time before teachers would be forced to teach remotely due to a global pandemic. A final explanation for not being able to implement online field experiences had to do with their province's Ministry of Education or teacher union regulations or standards.

Reasons Programs Want to Have Online Field Experiences

There were a variety of reasons why some institutions wanted to have an option for students to undertake an online field experience. Increased access was the most popular reason for being in favour of having online field experiences. A respondent from Manitoba mentioned issues with students in remote locations:

> I am largely saying yes since it sounds like a potentially interesting concept particularly for our 'distant education' students or the potential to offer up field experience and programming to our Northern Educators who struggle with commuting to the Institution for spring & summer sessions in order to gain their degree and certification - currently regular session (fall & winter) is really not an option for them because of distance.

Increased flexibility was the other reason respondents were in favour of implementing online field experiences. A respondent from Saskatchewan discussed how it should be an option for pre-service teachers who are interested/specializing in teaching in online settings. Given Canada's size and remote areas that have issues with access, institutions that service these areas would benefit from such an expansion.

Future Plans for Online Field Experiences

Less than 20% of institutions responded that their teacher education program is in the process of designing online field experiences for pre-service and in-service teachers. The respondent from New Brunswick that shared their work with First Nation schools stated their interest in replicating their efforts with their traditional teacher preparation program. However, it appeared that these plans were in their infancy. For example, a respondent from Saskatchewan stated, "not sure yet. It will use cooperating teachers across the province but with technology to deliver and collect content."

Discussion

As the results reported by Archibald et al. (2020) were generated using an instrument that had been used in two earlier studies in the US, it is both useful and instructive to compare the data from both countries. This is followed by a consideration of the Canadian data reflecting the broader field.

In Comparison to the US-Based Studies

Archibald et al. (2020) found that 8 of 17 Canadian institutions reported offering field experiences in K-12 online settings for teachers, though these experiences primarily focused on blended learning rather than on actual online environments. Both US studies provided a caveat to their data on schools having an online field experience (Archambault et al, 2016; Kennedy & Archambault, 2012a). These studies reported two numbers: the number of institutions that stated they had an online field experience and the number of institutions that provided evidence. In both cases, the latter number of institutions that shared about their programs was much lower. Since eight (32%) of our respondents provided additional information, that number was used as a basis for comparison. In both the 2012 and the 2016 US studies, the percentage of institutions that responded in the affirmative and provided evidence were 1.3% and 4.1%, respectively (Archambault et al., 2016; Kennedy & Archambault, 2012a).

Most Canadian institutions did not offer online field experiences for pre-service teachers, citing reasons such as lack of resources, insufficient knowledge, perceived limited usefulness, and regulatory constraints (Archibald et al., 2020). Similar to what Kennedy and Archambault (2012a) found, a key reason for not providing an online field experience was that respondents valued face-to-face teaching experiences more and did not want to divert resources from those experiences. Additionally, many of the US respondents were under the impression that face-to-face skills were easily transferred to the online environment. The US respondents also expressed regulatory concerns from their state boards of education. Finally, US respondents were unsure of the usefulness of the online field placement option since most teachers were likely not going into the field to exclusively teach online and therefore, post-baccalaureate training would suffice.

Archibald et al. (2020) also reported that Canadian institutions who favoured online field experiences cited increased access and flexibility as key advantages, particularly for students in remote locations or those specializing in online teaching. In the US study (Kennedy & Archambault, 2012a), those with favourable opinions of online field experiences cited slightly different reasons, emphasizing

the need to address the pedagogical differences in online and traditional learning. With that said, the US responses tended to be more pragmatic in nature, where comments centred on vague notions of future needs [e.g., wave of the future, it is coming, so we need to (Archambault et al., 2016)]. Not much was said about access to education in remote areas.

Finally, only a small minority of institutions were in the early stages of designing online field experiences for teachers, with plans still largely undefined (Archibald et al., 2020). Both US studies (Archambault et al, 2016; Kennedy & Archambault, 2012a) provided little data on future plans, and in general, reported similarly vague notions of the future. The authors lamented that perhaps survey respondents were unclear on terminology, as evidenced by multiple "don't know/unsure" responses. While it may have been more acceptable to be unaware of the nuance with online teaching during the time the studies were conducted, that is less likely now. On the other hand, the lexicon has changed, and terms like hybrid learning, blended learning, and remote teaching have nuanced definitions that many outside the field rarely understand. As such, while using the same survey allows for better comparisons, an updated or revised survey may be necessary. Interestingly, the authors did mention several instances of the survey itself being a potential impetus for exploration.

The nature of the respondents in each of the three studies was consistent. For example, all three studies reported receiving the largest percentage of respondents from institutions that had fewer than 5,000 students (Archambault et al, 2016; Archibald et al., 2020; Kennedy & Archambault, 2012a). However, given the size differences between the two countries, further comparisons in number and size of institutions are not useful. While both US studies had placement coordinators as the largest percentage of respondents (Archambault et al, 2016; Kennedy & Archambault, 2012a), Archibald et al. (2020) had comparatively fewer administrators respond (i.e., 33% in the US study versus 3%); otherwise, the remaining categories were aligned.

The results of the Archibald et al. (2020) Canadian study provided additional insight on the current state of online teacher preparation when compared to the studies in the US. Data from the two countries were similar in many respects. Reasons against institutions not having an online field experience included deficiencies in resources, knowledge, and perceived demand. The reasons for them having this type of field experience reflected slight differences between the two countries. Canada's reasons emphasized access to education for remote areas, while the US reasons were more generic, centring on the inevitability of technological progress. However, respondents from both countries noted that training for online learning should look different from training for traditional teaching.

Within the Broader Context of Teacher Education

Beyond the comparisons of what was found in the Canadian context in relation to the earlier studies in the US, given the current realities with respect to increase frequencies of pandemic/endemic diseases and severe weather due to climatic change, school systems will likely need to close for significant periods again in the future. Although it may be more localized than what was experienced with COVID-19, and the duration may be much less, school systems will likely need to close again, and teachers need to be prepared to provide learning at a distance. As such, it is important to explore these results through the lens of Hodges et al. (2022). When doing so, one could see a difficult but not

impossible path to making online field experiences the norm rather than the exception. Research-based online teaching standards, or the lack thereof (Adelstein & Barbour, 2016), present a challenge due to inertia (i.e., there needs to be a willingness for researchers and institutions to design and develop standards and support with research). In addition, Adelstein and Barbour suggested that after standards are developed, they would need validated instruments to see if the standards are being met. Again, this would require buy-in from institutions and provincial governments for support and implementation. With the increase in online learning research from the pandemic, as Woo et al. (2023) have noted, the empirical support should be gaining traction. As well, standards would need institutional and provincial support (Barbour & LaBonte, 2017), and the data reported in this study has clearly shown a lack of interest – at least immediately before the start of the pandemic. We found that a minority (32%) of the respondents' programs had online or blended field experiences for their pre-service and in-service teachers. Surprisingly, none of those field experiences were newer than five years old (i.e., they were all established prior to 2012). It appeared that rather than the field experiences in these programs being motivated specifically to prepare teachers for the current challenge of online and blended learning environments, they were formed by necessity due to the high quantity, the remoteness, or the tight schedules of the teachers enrolled.

Respondents who did not have online field experiences and had no plans to change listed four general reasons: lack of resources, lack of knowledge, lack of value (i.e., utility), and current regulations. As both Woo et al. (2023) and Gedak et al. (2023) noted, the pandemic provided a wealth of experiences that could shift some of these opinions. For example, respondents felt that online field experiences were not useful for future careers. Post-pandemic, perhaps the respondents – with increased experiences – would now feel differently. With respect to resources, both K-12 and higher education shifted resources toward online learning. These resources (e.g., cameras, microphones, learning management systems), many of which are physical, are still available for use. Put differently, some of the costs associated with startup are no longer needed, and additional resources need only be spent on replacement and license renewal.

The third step Hodges et al. (2022) suggested was to expose teacher candidates to more online and blended experiences as students. Even before the pandemic, the number of students in online environments doubled in the last decade, and the number of students in blended environments has almost doubled in the previous three years (Barbour & LaBonte, 2019). Because of this increase, it would require little effort by institutions to guarantee this exposure by ensuring that every teacher candidate take some amount of coursework online. Having education faculty trained in online teaching practices would not only support this step, but possibly the next step as well.

The fourth step, requiring teacher candidates to have specific training in teaching online, is again hampered by the lack of standards. As Moore-Adams et al. (2016) argued years before the advent of COVID-19 and the associated school closures and rapid transition to remote learning, a clearly defined set of skills specific to teaching online is needed to justify a course (or content within a methods course) dedicated to this topic. Respondents also listed a lack of knowledge as a barrier to online field experiences, as well as resources. With respect to resources, respondents believed that any online endeavour comes at the expense of face-to-face requirements. A standalone course would be an

additional course on an already full curriculum. On the other hand, incorporating online teaching into current coursework would require the instructors of non-educational technology courses to become fluent in online teaching pedagogy, and Johnson's (2023) research reported that faculty find it difficult to teach online effectively. Another area for improvement would be more empirical research on online teaching at the teacher preparation level, as Martin et al. (2023) found this to be an area where research was relatively scarce.

The fifth step, requiring online field experiences in teacher preparation programs, was the centrepiece of this study. One-third of respondents claimed to offer some online field experience, and these were well-established. Further, of those programs that did not have any online field experiences, 55.6% also believed that they should not provide them in the near future. Reasons for not providing online field experiences included the sentiment that they would not help pre-service teachers get a job, or they simply did not know enough about them. However, post-pandemic, employers may see these skills as an asset regardless of whether teachers are in-person or remote. As Woo et al. (2023) noted, relationship building was key to successful online teaching; it is also key to traditional instruction.

Finally, Hodges et al. (2022) stated that the final step would include tying online field experiences to accreditation. Once again, this can only be done after the previous five steps are in motion. Respondents stated that regulations from both the ministry and the union were barriers to implementation. Stakeholder negotiations would need to take place in order to codify online teaching into preparation programs. It is likely that this would only occur as a result of a nationwide modernization effort for teacher education and professional learning (Al-Ansi, 2022; Farhadi & Winton, 2020; Hill et al., 2020).

Overall, the survey results indicate a stagnation in the progress toward making online field experiences a key component of preparing Canadian educators. Further, respondents provided little information regarding any efforts toward professional learning for in-service teachers, as none of the respondents were associated with institutions previously discussed in the literature review (Barbour, 2012; Blomgren, 2017; Harrison, 2012; Smith, 2012). However, given the similarities between this study and the studies on which it was modeled (Archambault et al, 2016; Kennedy & Archambault, 2012a), and given that the data were collected prior to the COVID-19 pandemic, there should be optimism that change is possible. Stakeholders and policymakers could potentially use the blueprint provided by Hodges et al. (2022) to make the necessary changes.

Conclusions and Implications

In this study, we examined the current state of online field experiences in Canadian teacher preparation programs, replicating a series of studies conducted in the US. Much like Canada's southern neighbors, the adoption of online field experiences has not kept pace with the demand for online instruction at the K-12 level (Barbour et al., 2020). While data for this study were conducted before the COVID-19 pandemic, it still provides a snapshot of the landscape, as any full-scale changes made post-pandemic are likely still in the planning stages.

To have widespread incorporation of online field experiences, teacher education programs and their faculty can do several things. As researchers, faculty can follow lines of inquiry that help to validate online teaching standards and instruments to assess teacher candidates during their online field experience. This would require pilot programs (with exceptions to where regulations would first need to be approved), which would include finding partner schools with whom to collaborate. If successful, these pilot programs could facilitate changes to programs. In addition, faculties of education need to address online teaching in both the hiring process as well as the tenure and promotion process (through professional learning requirements, for example), making sure that new faculty are or can become comfortable and successful teaching online. Last, colleges of education need to initiate conversations with policymakers, provincial governments, and teacher unions to ensure that the needs of all stakeholders are met.

It is understandable that every innovation takes time to be adopted (Hall & Hord, 1987). The adoption often starts with administrators' attitudes (Huberman & Miles, 2013), and these are administrators similar to many of those who were responsible for completing the survey in this study. To better prepare future and current teachers, it will be necessary to help current university administrators understand the benefits and challenges that online or virtual field experiences can provide in preparing teachers to work in the classrooms of the future (Kennedy & Archambault, 2012).

As Woo et al. (2023) and others have suggested, the increase in research on this topic during the pandemic needs to be put into practice. Future studies should begin by examining the effects of changes made to teacher preparation programs regarding online field experiences. In addition to replicating studies such as this one (i.e., tracking changes to online field experiences in Canada), studies could include examining how prepared candidates feel about online teaching several years after completing their teacher preparation program. Further, if remote teaching is necessary due to another pandemic or climate disaster, research could look at how teachers adapted this time, as well as whether learning loss was mitigated when compared to the COVID-19 pandemic. The topic of online field experiences is in its fourth decade, and while the throughline from research into practice in education is often slower than desired, this particular topic is inherently fast-paced, necessitating a sense of urgency for institutions and policymakers to make research-based change.

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