Articles

The Use of Digital Tools in French as a Second Language Teacher Education in Ontario

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This article discusses a 2021 survey of French as a second language (FSL) teacher candidates (TCs) in faculties of education in Ontario whose practice teaching experiences were affected by the COVID-19 pandemic, pivoting them into remote FSL teaching and learning. The survey, which formed a component of a larger mixed method SSHRC-funded research project, was designed to capture the varied practice-teaching experiences of FSL teacher candidates in order to ascertain symmetries and asymmetries in their preferred digital practices, devices, and tools for both social communication and French language teaching and learning. Survey respondents from different teacher education programs in universities across Ontario provided a picture of scattered and fragmented approaches to FSL digital pedagogies and hinted at a persistent reliance on traditional FSL pedagogies in the classroom. Digital preferences for teaching and learning tended to be anchored in common educational tools and platforms that reaffirmed teacher-centred approaches to FSL rather than more innovative, learner-centred, and agentive language teaching and learning. The survey results raise an important question: Has FSL teacher education adequately moved with the communicative changes wrought by wider socio-technical transformations and related pedagogical innovations?

Cet article discute d'un sondage réalisé en 2021 des candidats à l'enseignement du français comme langue seconde (FLS) dans les facultés d'éducation en Ontario dont leurs stages ont été affectés par la pandémie de COVID-19, en faisant pivoter l'apprentissage et l'enseignement FLS en ligne. Le sondage, qui fait partie d'un projet de recherche financé d'une méthodologie mixte, a récolté les expériences diverses des candidats du FLS afin de déterminer les symétries et les asymétries au sujet de leurs pratiques numériques préférées, les appareils et les outils utilisés pour la communication et pour l'enseignement et l'apprentissage de la langue. Les participants (N=17) des différents programmes de formation à travers l'Ontario ont indiqué les approches éparpillées

et fragmentées aux pédagogies numériques FLS dans tous les programmes de formation et ont suggéré une dépendance persistante sur les pédagogies du FLS traditionnelles dans la salle de classe. Les préférences numériques pour l'enseignement et pour l'apprentissage ont divergé. Ces choix étaient ancrés dans les outils pédagogiques communs et les plateformes qui réaffirment les approches centrées sur l'enseignant plutôt que l'apprentissage innovant centré sur l'apprenant actif. Les résultats du sondage soulèvent une question importante : est-ce que la formation des enseignants FLS a évolué suffisamment avec les changements communicatifs forgés par les changements sociotechniques et les pratiques pédagogiques associées ?

Keywords: COVID-19 pandemic, digital tools, FSL, online learning, online teaching, teacher education

Since the COVID-19 virus was first identified in Wuhan, China, at the end of 2019 (WHO, 2020), the pandemic has permeated every sector of public life and altered social routines and educational practices on a global scale. University and college campuses worldwide were forced online virtually overnight, shutting down on-campus and in-person classes, labs, and meetings and curtailing research projects to "socially distanced" and digitally mediated methodologies. UNESCO (2020) confirms that some 1.2 billion students, over half of the world's student population, were affected by these closures. Li and Lalani (2020) go so far as to predict that the COVID-19 pandemic will change education permanently. Day et al. (2021) predict that the sudden shift to online and remote learning as normative will continue to influence educational policy and everyday pedagogical choices for the foreseeable future.

The pandemic brought to light numerous challenges in the resulting mass shift to online learning affecting students at all levels of education, including issues related to equity and technology access, as well as whether and how teachers were mobilizing digital tools creatively and critically. Before the pandemic, Webb et al. (2018) noted that, in general, teachers and students manifested better command of Web 2.0[1] social media tools than of emerging technologies supporting dynamic engagement with smart tools and the interactive media associated with Web 3.0[2] environments. The latter include devices and applications that support seamless mobile connectivity, personalized language learning using multimodal communication technologies, and situated practice with natural language processing digital agents, such as Siri. While natural language processing is a promising driver in the Web 3.0 toolkit, such programming inherently embeds language beliefs and ideologies that may be educationally problematic and inserts language standardization via vocal drill models (Lotherington, 2018). These biases, which can negatively affect FSL learning and learners, undergird for-profit corporate language learning apps which usher learners into uncritical engagement through easy access. Indeed, some of these apps—for example, Duolingo—skirt theoretical soundness and professional scrutiny and activate anachronistic orientations to

[1] Web 2.0 expands the capacity of internet users with participatory environments like Wikipedia (and other wiki tools), facilitating social connectivity and practices such as fan fiction and blogging. Web 2.0 evolved over the first few years of the new millennium with social media sites such as YouTube and Myspace that generated communities, cultures, and new communicative practices. Web 2.0 is known as the social web.

[2] Web 3.0 describes environments where digital communication tools and social media platforms increasingly integrate artificial intelligence (AI) and voice-activated digital conversational agents, e.g. Siri, Cortana, and Alexa. Known as the intelligent web, hosting "smart tools," Web 3.0 took hold after 2007 with the release of the iPhone.

language learning/acquisition (Cunningham, 2015; Jašková, 2014; Lotherington, 2018). Given such rapidly evolving digital contexts, our research group wanted to gain an understanding of the nature of the FSL activities that teacher candidates (TCs) were digitally engaged in, and if, how, and to what extent new language learning tools or everyday digital media applications were being mobilized in pandemic contexts for TCs.

Clearly apparent in the scramble for improving online teaching, characterized by teaching and learning facilitated over virtual platforms both synchronously and asynchronously, was the paucity of research on using new technologies as pedagogical tools in French language teaching. This lacuna had been highlighted prior to the pandemic by Arnott et al. (2019), who investigated trends in K–12 FSL research in a sample of 181 peer-reviewed articles from 2000 to 2017. They determined low-frequency research topics intersecting with the four predominant FSL research concerns, namely literacy, French language form, French language instruction, and student background, noting insufficient research attention being paid to technology in FSL research. The researchers remarked that, "in the case of ever evolving aspects of FSL education, for example technology, it can only be noted that this topic has become more embedded in research design, rather than being investigated as a pedagogical tool in and of itself as it was at the start of the century" (p. 74), alluding to influential turn-of-the-century Canadian studies on technology as pedagogy (Murphy, 2002; Turnbull & Lawrence, 2001, 2003). Arnott et al. indicated at the time that "more research is needed to understand how the shift toward Web 2.0 technologies (that allow for interactivity and user creativity and communicative agency on the Web) have [sic] altered [or not] teachers' FLI [French language instruction]" (p. 74). In the context of the COVID-19 pandemic, Smith and Arnott (2022) confirm that "there are not yet studies exploring the delivery of FSL K–12 programming in an online or hybrid format resembling the virtual schooling situation of the COVID-19 pandemic" (p. 91).

Insufficient research attention on the specific pedagogical uses of digital technologies in the FSL classroom led our research group to investigate what the pandemic-driven pivot to online education revealed about FSL TCs' engagement with, and their preferences regarding, mobile digital technologies and new media supportive of multimodal communication and compositional work. Recognizing FSL teacher candidates in Ontario as a unique group who are typically both developing their French proficiency as language learners and teaching French, we focused on FSL teacher candidates, developing an online survey that was distributed to FSL TCs in university programs across the province. We recognized that TCs would have had their university courses interrupted as they shifted online during the pandemic, and we learned that TCs' placements, arguably the most important part of their teacher education program (Desbiens et al., 2015; A. Martin & Russell, 2011), would also have been moved online, forcing TCs to adapt quickly to both online language learning and teaching. Our aim was to develop a picture of the digital tools TCs were engaging with in their everyday lives and in personal language learning experiences, how they were engaging with these digital tools, and how they were learning about them in their teacher education programs. We also wanted to know if, how, and to what extent TCs were applying these tools in practical FSL teaching in light of the digital context precipitated by the COVID-19 pandemic.

Literature Review

New Technologies in the Classroom and in Teacher Education

Educational researchers have investigated a wide range of issues and tensions in the evolving technological landscape, revealing diverse complex and unresolved relationships. In Ontario, Chen et al. (2014) found

that pedagogies identified as cutting-edge at the time (e.g., game-based learning and the use of social media) were in relatively limited use across classrooms. The researchers called for digital learning to be built into education in Ontario, specifying needs for a working definition of digital literacy, inclusive technological use, and support in teachers' professional knowledge development. Ontario has since rolled out various initiatives, including the Technology and Learning Fund in 2014 to 2017 (Council of Ontario Directors of Education, 2017) and the requirement that students take e-learning credits during high school (Government of Ontario, 2019). Across the province, many schools have also implemented the less onerous "bring your own device" (BYOD) policy, about which People for Education (2019) critically commented, "while Ontario has acknowledged the importance of technology in schools, students do not have equitable access to the internet or digital tools; and schools do not have equal access to the resources that build staff capacity for teaching with technology" (p. 10). Indeed, McQuirter (2020) identified the uneven and undertheorized implementation of technology in the classroom as a barrier to meaningful educational change, reaffirming the OECD's (2011) claim that "the embracing of technology has been fragmented at best" (p. 48).

Despite this somewhat pessimistic claim, researchers have been actively involved in promoting interactive and creative uses of technology in language learning. Studies have explored the potential of Web 3.0 (smart web) innovations, such as augmented reality in language learning (e.g., Pegrum, 2019), which highlight the potential of mixed-media experience for activating just-in-time environments personalized to learner preferences, reinforcing learner agency and interest (Godwin-Jones, 2016). Studies have also focused on older, more familiar digital tools, such as machine translation and online dictionaries (Godwin-Jones, 2015; Wu, 2020), which, when thoughtfully pedagogically incorporated, can support learner autonomy and self-directed language learning inquiry and exploration. Widespread digital communication tools such as WhatsApp and Facebook Messenger and videoconferencing tools such as Zoom have been shown to motivate language learners by instilling positive global citizenship traits through intercultural relationships and critical cultural awareness (Godwin-Jones, 2019).

Chong and Reinders (2020) highlighted the optimism expressed by language students and teachers alike regarding the affordances of technology-mediated tasks for encouraging online learner-to-learner cross-cultural interaction. Learners indicated feeling more motivated and expressed increased confidence communicating online and less fear about taking risks and making errors in the target language. Technology-mediated tasks were deemed to facilitate student-centred learning, which is useful for the development of both language knowledge and related digital competences. Recent developments in technology-infused learning also include the Maker movement (see Kessler, 2021), mixed reality and simulation projects, such as Mentira (see Holden & Sykes, 2013), Croquetlandia (see Sykes et al., 2008), and OpenSim (see Coleman & Yamazaki, 2017). Numerous research projects have successfully explored digital storytelling and multimodal creative production in formal and informal language learning contexts (Hébert et al., 2022; Lotherington, 2011; Lotherington & Paige, 2017; Ntelioglou et al., 2014; Prasad, 2015).

However, there are counterbalancing studies (Bitner & Bitner, 2002; Celik & Yesilyurt, 2013; Gibson et al., 2014; Hsu et al., 2009) pointing to teacher anxiety surrounding the implementation of new technologies in the classroom and the unavoidable discomfort of shifting from traditional language pedagogy to more dynamic pedagogies that invite inquiry, action, and creative making on the part of the learner. Indeed, despite the multitude of language learning affordances described by Chong and Reinders (2020), teachers noted how time-consuming it can be to learn and integrate new technology, questioning technology's importance and cost-effectiveness in language lessons. Concerns about technology are thus interwoven with wider anxieties about professional learning and lack of knowledge, support, or models for meaningful student learning using new media.

In response to the increased demands for FSL student recruitment and retention in Canada, Ryan and Sinay (2020) ask, "Does technology now drive the vision, or do we provide the vision for SL learning?" (p. 316). One of the main points they raise is the tension within FSL programs in Canada, which are based

on traditional twentieth-century models of programmatic, linear, and developmental language acquisition, having to face the technological realities of a multimodal digital culture where dynamic contexts for, and practices of, language learning are in play (Lotherington & Jenson, 2011). For example, outside of FSL contexts, researchers studying technology-mediated plurilingual language learning have examined how digital media, in conjunction with multiliteracies frameworks, are supportive of local cultural resources, situated plurilingual language use, and multimodal (digital) making (Lotherington, 2011; Lotherington & Paige, 2017; Prasad, 2015).

The Pivot to Online Teaching and Learning in Response to the COVID-19 Pandemic

In Wotto's (2020) cross-cultural analysis of distance and mobile learning in Canada, France, and the United States prior to COVID-19, Canadian institutions were called out as lagging on the international stage. The COVID-19 pandemic brought sudden public attention to inefficiencies, inequities, and anxieties surrounding online education, and it made clear the continued need for research on the uses of digital technology in and for learning and teaching. This observation is particularly salient for pre-service teacher education programs, given increasing provincial expectations for technologically competent teachers equipped with innovative practices. Educational researchers attended to the pivot to online learning both to question the place of technology in education, raising concerns about the perceived injustices inherent in a technologically dependent system (Blundell et al., 2020), and to interrogate the specific challenges faced by students and teachers (Kumar, 2020; Webber, 2021). Researchers also examined professional development programs for teachers (Ahadi et al., 2021) and tapped student perceptions and reactions to online learning (Ahmad et al., 2021).

In the early stages of COVID-19, Russell (2020) published a study on the push to remote and online learning in relation to foreign language classroom anxiety. The study, which considered affective factors, specifically anxiety, for their effect on learning outcomes, found a lack of preparedness in both language students and teachers. Ge et al. (2021) responded to the shift to technologically mediated teaching brought into effect as a result of COVID-19 by examining the use and value of portable devices as learning tools. Results indicated that students had mixed feelings about the use of iPads for classroom learning. Where some students had positive experiences with their iPads, stating that the devices made learning more fun and exciting by allowing them to explore new ways of learning and engage more interactively with their teacher and peers, others voiced technological challenges such as connectivity instability, suffered class disruptions to address misuse, and felt they had reduced opportunities for critical thinking. Although not representative of language teachers specifically, this study emphasized that students look to their teachers to help guide their uses of technology in the classroom, concluding that "teachers play a critical role in supporting self-regulated learning using technology and promoting positive impacts of technology for learning" (p. 86). A recent Ontario study carried out by Smith and Arnott (2022) highlighted FSL teachers' ongoing professional marginalization and seclusion, and their feelings of being disconnected from schools and boards. Indeed, study participants indicated that their technological competencies did not alleviate persistent challenges faced in the COVID-19 context.

There is currently significant pressure on teachers to quickly and effectively instantiate technologically mediated pedagogical approaches in their teaching, encourage and support students struggling with repeated COVID-19–related lockdowns, and continue to meet course objectives and provincial curriculum standards. Traditional second language pedagogies utilized to meet standards,

however, may in turn undermine innovative applications of new tools by teachers and students alike (Lotherington et al., 2021).

Digital mediation has inspired new language forms, for example hashtags signalling a topic (and much more; see Zappavigna, 2015)—for instance, #MeToo; new discourses, generating social media communities, such as Twitter, Facebook, and TikTok; and new multimodal texts requiring appropriate composing and reading processes; new communities and even professions, for example, influencers and parody artists. These changes in how language is used in everyday communication must be reflected in appropriate guides and models for FSL teaching and learning. With changing media from paper to screens, and across successive iterations of the web, texts have morphed from static and linear to dynamic and multimodal to currently emerging forms of posthuman communication, including AI and interactive "smart tools" integrating machine-learning algorithms and natural language processing. These networked media increasingly challenge what were assumed to be the four basic (and too often compartmentalized) language skills, namely reading, writing, listening, and speaking. New media texts require appropriate semiotic resources and compositional processes (Domingo et al., 2015; Graddol, 1994; Kress, 2015). Contemporary modes of communication and textual composition require an understanding of multimodal literacies, which utilize multiple semiotic affordances and related digital tools, such as cameras, audiorecorders, and word processors to compose a modular rather than linear text (Kress, 2015), based not on letters but on pixels and modal ensembles (Cope & Kalantzis, 2004).

As Kern (2021) points out, language teaching must move beyond the goals of communicative language teaching. *New* basics, such as interactive read/write (R/W) composing, collaborative editing, and appropriately engaging digital agents in posthuman exchange, which did not exist prior to this century, are essential and inescapable in contemporary mobile communication (Lotherington & Bradley, in press). The mandatory rapid transition to online platforms has revealed the lack of preparedness and anxieties that many teachers experience while navigating technological realities, in turn hampering teachers in critically exploiting the affordances of digital tools for meaningful, socially contextualized second language learning.

Research Aims

The study of FSL teacher candidates' attitudes to and uses of digital tools in and out of the classroom formed a preliminary survey in a multistage research project, whose larger collaborative research agenda was to promote the design of agentive language learning pedagogies using the just-in-time and on-demand features of mobile toolkits enabled on smartphones. Production pedagogies promote interdisciplinary learner engagement through cultural creation in response to real-world needs, concerns, and student purposes (Lotherington et al., 2021; Thumert et al., 2018). In the field of language teaching, where theoretical and practical foot-dragging into the current century can be seen in the unwavering maintenance of four skills language teaching and testing, and in "no cell phone" policies as a means of constraining student attention and agency, mobile technologies that give the user options for multimodal and interactional composing are often treated as a hindrance to learning and as a thorn in the side of reified language learning ideologies or are considered optional add-ons to twentieth-century ideals of communication norms.

Studies identifying FSL teacher anxiety toward the discomfiting incorporation of technology in classroom learning, requiring a gear change in language teaching to creative learner-centred pedagogies (Gibson et al., 2014; Fernández Batanero et al., 2021), have revealed a fear of digital tools in ill-prepared FSL teachers. This may reference a belief that dynamic Web 2.0 technologies that facilitate the development of social networks and interactive virtual communities do not align with the normative goals and methods of FSL instruction and assessment in schools. This fear came into sharp focus under COVID-19 conditions

with the overnight transition to 100% digital teaching and research in universities and on-and-off remote teaching in schools. To establish the preparedness, preferences, and innovative ideas of language teaching professionals currently in certification programs, we designed a survey to capture TCs' personal and professional uses of, familiarity with, and creative purposes for digital programs and tools. Our survey was guided by the following research questions:

1. What digital tools are FSL TCs using
    a. for social communication?
    b. for their personal French learning?
2. How are FSL teacher candidates engaging with digital tools
    a. in teacher education programs?
    b. in FSL classroom use?
3. What resources, digital and non-digital, are TCs using in their FSL teaching practice assignments?
4. What issues and concerns are TCs and their students facing with digital technologies?

Research Design

An online questionnaire targeting Ontario-based FSL TCs currently in years 1 and 2 was developed, pilot-tested, and conducted over the course of 2020–2021. The survey was collaboratively developed in weekly research meetings via Zoom by a core team of four researchers, which included an applied linguist, a specialist in FSL pedagogy and learning, and two new media literacy researchers. All questions were designed specifically for FSL TCs in Ontario; questions of general interest on French language learning and teaching were pruned in order to keep our survey succinct and efficient. The team first agreed on the essential demographic information we required, keeping participants' anonymity in mind. Following, we generated the substantive information needed to answer our guiding research questions. After data needs were established, questions were edited and finalized before being formatted in Microsoft Forms, which offered optimal flexibility for our research purposes. As the questions were programmed into the digital survey instrument, we co-developed a letter of informed consent and applied for ethical permission to conduct the survey as part of our already university-approved major project application.

The questionnaire consisted of three types of questions and was designed and field-tested to take five to eight minutes to complete online (see Appendix). The research team developed multiple-choice questions to gather demographic data based on what the team considered important information: participants' gender, provincial location, teaching stream, year of study, teaching aspirations and physical or digital FSL teaching placements. Checklist questions were developed to comparatively profile TCs' daily social uses of digital devices against the digital tools and programs they were learning about in their teacher education programs and those used by their professors, as well as TCs' preferred digital and non-digital resources for learning and teaching French. The survey concluded with short-answer questions on participants' plans to use digital tools in FSL teaching, the support they were offered for online learning and teaching, and the challenges they and their FSL students were experiencing with online learning.

The questionnaire was pilot-tested on three in-service FSL teachers who had recently graduated from Ontario teacher education programs. After fine-tuning, the questionnaire was sent to deans of education at BEd programs across the province of Ontario for distribution to their FSL teacher candidates. Currently, 13 public universities in Ontario offer consecutive and/or concurrent teacher education

programs. Three teaching streams are offered in Ontario programs: Primary/Junior (P/J) for kindergarten to Grade 6, Junior/Intermediate (J/I) for Grades 4–10, and Intermediate/Senior (I/S) for Grades 7–12.

We received enthusiastic interest from several universities; however, we were prohibited from proceeding in one and received no response from two others. A reminder was sent a week prior to the survey deadline, which had been extended in anticipation of generating more responses; this reminder was also sent via student associations in our university sample. Despite extending the deadline for responses, we received only 17 completed questionnaires. Though this response rate does not represent a generalizable sample, the results provided valuable observations on the current state of integrating digital technologies into FSL teacher education, the uses of digital tools in the FSL classroom, both offline and online, and the unique challenges being faced by FSL teacher candidates during the COVID-19 pandemic.

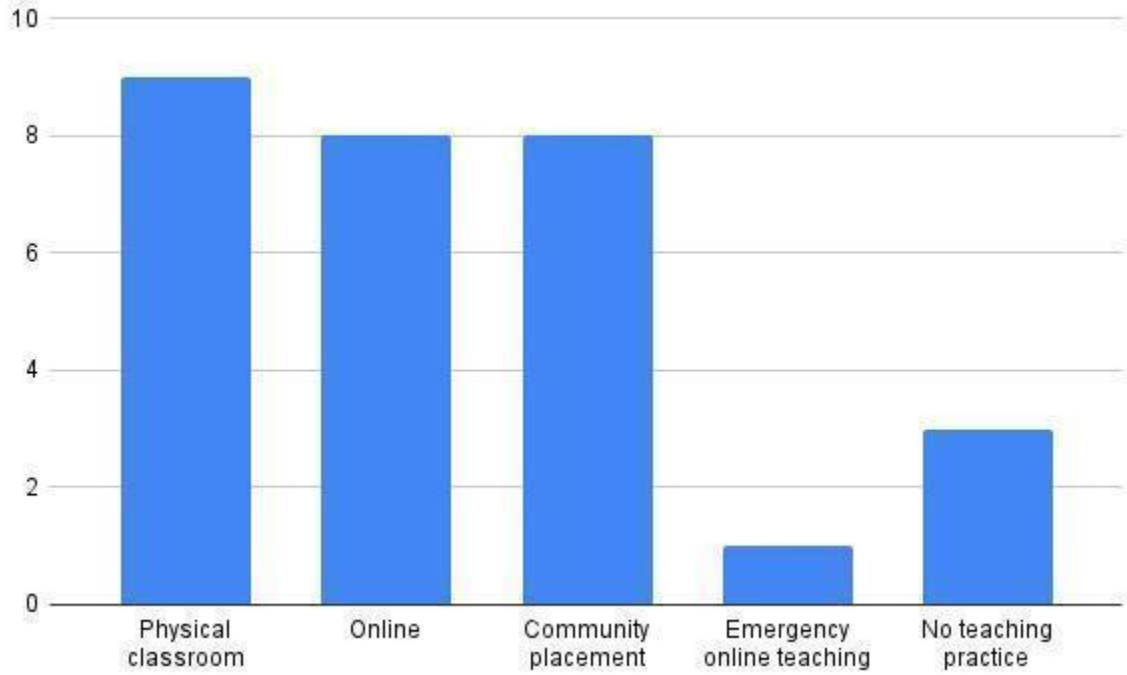
Survey Results

Participant Profiles

Respondents represented different constituencies in southern Ontario, spanning urban areas of varying population density. Ten participants were in the I/S teaching stream, six in J/I, and one in the P/J stream. Sixteen participants were female, and one respondent was male. Ten year 1 and seven year 2 candidates responded. The majority of respondents were in their first year of teacher education, so their practicum experiences were expected to be limited; the respondents in year 2 were expected to have had experiences both prior to and after COVID-19 conditions. This variation is shown in Figure 1.

Figure 1

FSL Teaching Placement Experiences



Most participants aspired to teach Core French in some capacity ($n = 12$); this is the primary vehicle for FSL instruction in Ontario, with 76% of students enrolled in Core French programs (Canadian Parents for French, 2019). Half of these participants were open to teaching Core French and/or Immersion and Extended French. Only four respondents stated a preference for teaching French Immersion and/or in Extended programs and one, unaccountably, wanted to teach core English subjects.

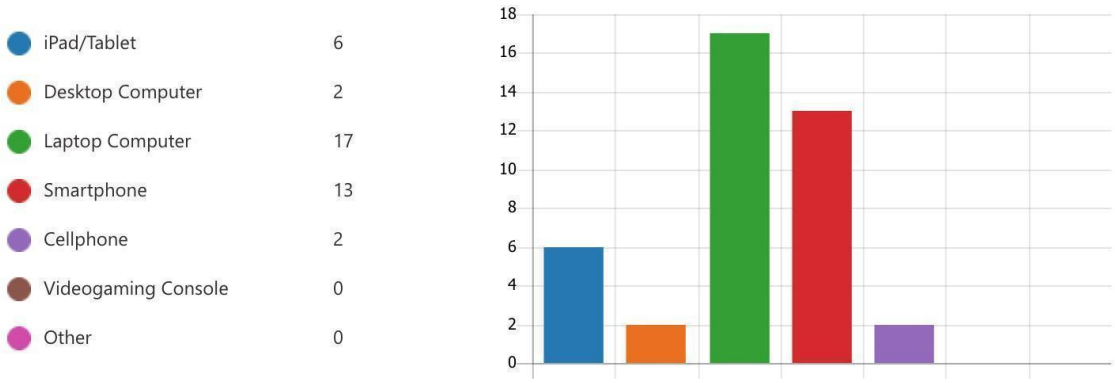
TCs' Digital Communication Profiles

Education has been pointed out as "another domain in which there [has been] a dramatic shift to the online mode of transacting. Since the beginning of the lockdown, schools, colleges, and universities around the world have shifted their classes to video conferencing platforms like Zoom and Google Meet" (De et al., 2020, p.2). With this global shift in mind, we were curious about what devices and programs participants were using for study, teaching, and social participation.

Interestingly, all participants had access to reliable high-speed internet at home. All respondents engaged with a laptop regularly, and the majority of participants also used a smartphone and tablet of some description. Participants' uses of digital devices are depicted in Figure 2.

Figure 2

Devices Used for Digital Social Communication Activities



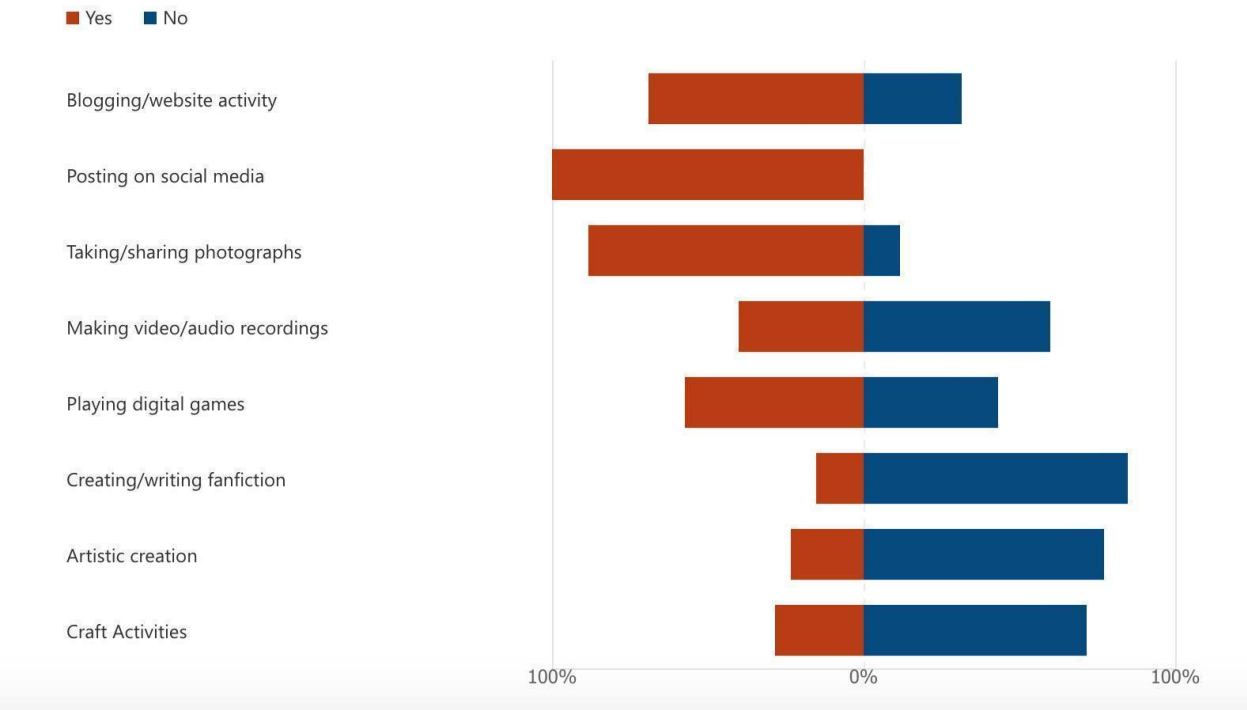
It is apparent that portable and mobile devices were preferred by all, with very little desktop use reported ($n = 2$) and a high use of mobile phones in daily communication. The use of mobile devices, which overtook other digital devices to become the primary mediating device of online communication several years ago (B. Martin, 2017), is clearly in evidence here. No videogaming console use was reported, suggesting that our respondents were not recreational gamers or, possibly, that game play is migrating to mobile or laptop/desktop platforms.

Figure 3 charts participants' social communication uses of digital devices. All participants used digital devices for posting on social media. Their communicative activities included connecting with peers, sharing photos, and catching up on social media posts. Devices had different social purposes: smartphones were used to text, and laptops to watch television shows and movies. Digital devices were used to take and

share photographs. Eleven respondents engaged in blogging and website building or maintenance. The least popular digital activities were artistic creation, crafts, and fan-fiction activities.

Figure 3

Digital Social Communication Activities



Digital Tool Use for French Language Learning and Teaching

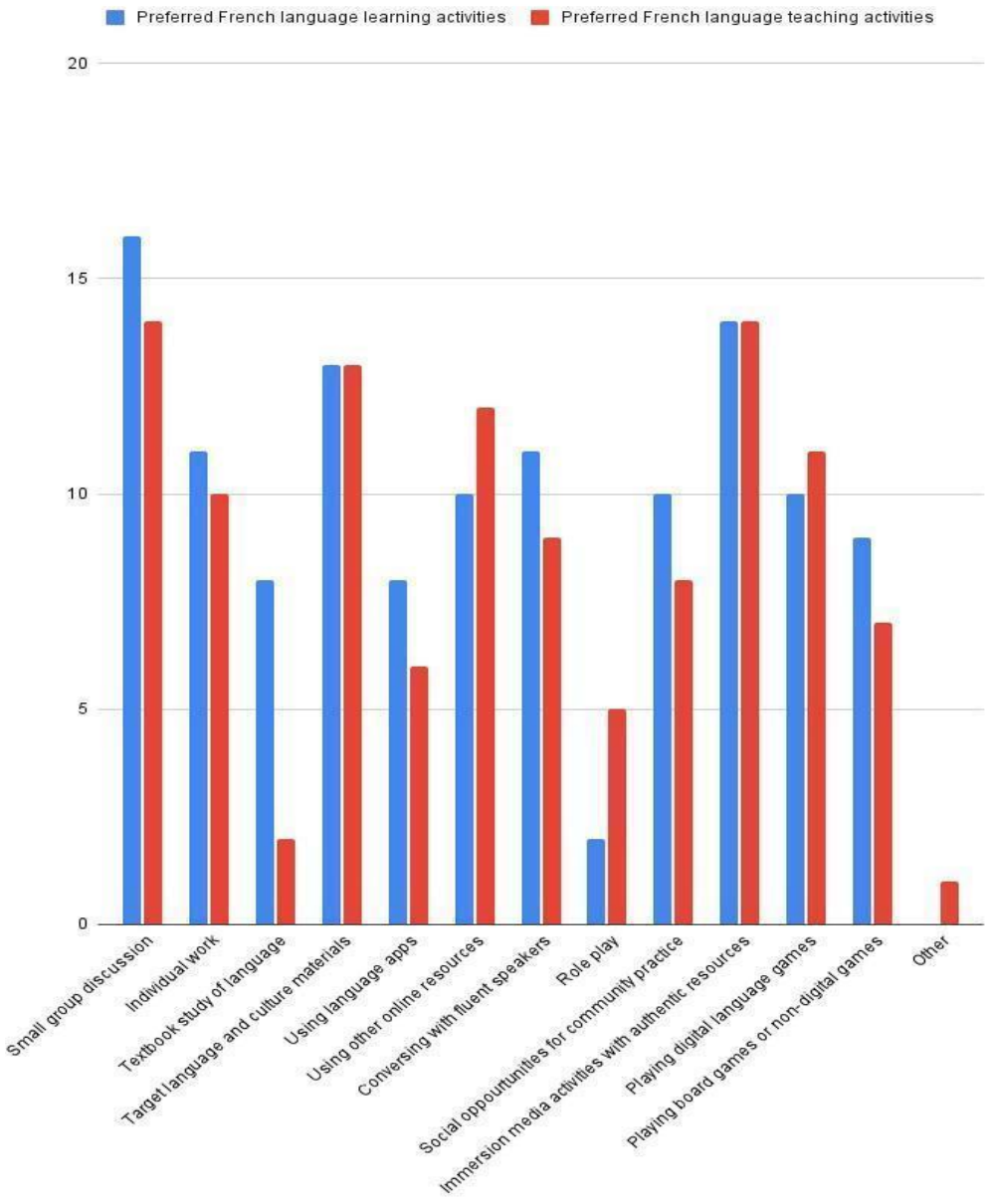
Participants were asked to expand on their experiences with digital devices as a French language learner and as a teacher candidate, as this dual learner–teacher role is a reality for many FSL TCs. In their teacher education and practical classroom use, popular online platforms included Kahoot, Zoom and Zoom apps, Google applications such as Google slides, Google forms, and language apps such as Duolingo. Others identified traditional broadcast media resources such as TV5Monde, l'Office national du film du Canada (ONF), Alloprof, and CBC Radio Canada, which would be considered authentic resources given their commonplace use beyond educational contexts. Educational help sites prominently included commercial resources: WordWall, 1jour1actu, Boukili, Mieuxenseigner, Storybooks Canada, Idello, and LesPlan, indicating no uniform exposure to online FSL resources. Saliently, four participants reported not learning about any digital tools for classroom use in their FSL program.

Participants described professors in their respective teacher education programs using online teaching platforms such as Zoom, Zoom annotate, and Zoom polls; Google applications, including Google suites, slides, forms, and Jamboard; Eclass and D2L as well as programs described in the previous survey question: Kahoot, Mieuxenseigner, and Storybooks Canada, indicating scattered commercial resource use across teacher education programs. TCs described their professors using websites and scholarly articles, Mentimeter, and YouTube, as well as videos to teach them in their BEd programs.

Participants' preferred learning activities are compared with their preferred teaching activities in Figure 4. The majority of TCs preferred the following FSL teaching methods: small-group discussion, engaging in immersion media activities with authentic resources, using target language and culture

Figure 4

A Comparison of Preferred Activities for French Language Learning and FSL Teaching

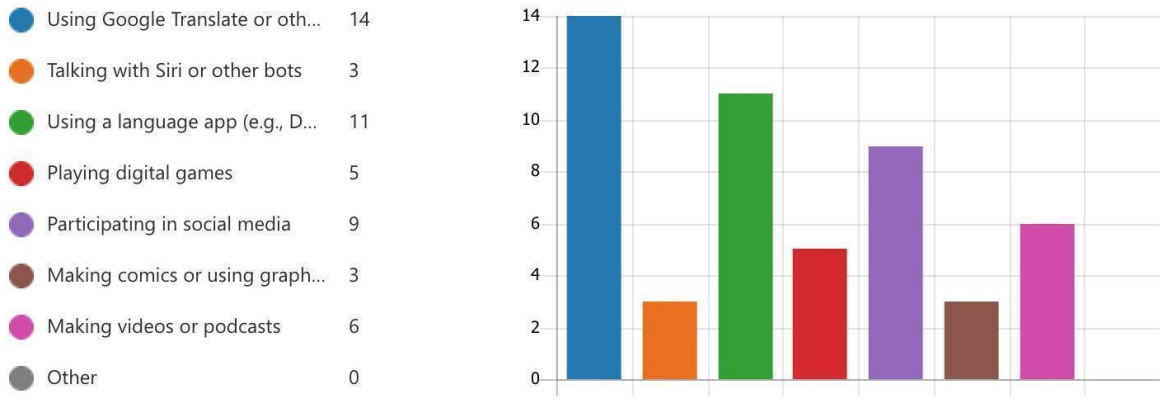


materials, conversing with fluent speakers, individual work, and developing social opportunities for community practice. Using unspecified "other" online resources and playing digital language games constituted the only digital activities reported. Role play was the least preferred activity.

In Figure 5, we see the digital language apps, programs, and tools that participants relied on in their personal language learning. Translation software, such as Google Translate, topped the chart, potentially signifying the use of digital technologies for traditional translation activities, though contexts of use were not specified. The second highest use was commercial language apps, such as Duolingo. Though such apps can be helpful, they have been shown to rely on tedious lock-step grammar memorization that limits creative language learning (Cunningham, 2015; Jašková, 2014; Lotherington, 2018). Social media sites had the next highest use, followed by playing digital games and making videos or podcasts, which shows that some TCs are engaged in productive and ludic activities. Least popular were talking with Siri or other bots and making comics or using graphic text makers.

Figure 5

Preferred Digital Tools and Activities for French Language Learning



Participants were then asked to identify what language apps, programs, and tools they preferred to use for FSL teaching (see Figure 6). Still topping the chart was translation software (e.g., Google Translate), but preferences varied. Participants indicated digital games as the second most popular FSL teaching resource, in curious contrast to their own learning preferences, remembering also that no candidates claimed to use a video-gaming console at home. Least popular again was talking with Siri or other bots. Curiously, participating in social media proved to be one of their least preferred methods for teaching, though it ranked in the top three of participants' preferred language learning resources. Using language apps, making comics using graphic text makers, and making videos or podcasts received an even number of responses (n = 5), despite TCs' higher use of language apps for learning than teaching. Lastly, one participant indicated "other" as a preferred teaching tool but did not specify what that referred to. A comparison of TCs' preferred digital tools for learning and teaching is depicted in Figure 7.

The final questions of the survey were optional and open-ended, to give teacher candidates space to expand on their opportunities for professional development and challenges in online teaching, as well as their future plans for teaching FSL using digital tools in the classroom. Of the 13 responses, nine participants indicated that they had experienced little to no professional development for online teaching. Four responses described access to useful support, including faculty conferences, in-class presentations of online resources and digital tools, breakout rooms, and interactive group discussion.

Figure 6

Preferred Digital Tools and Activities for FSL Teaching

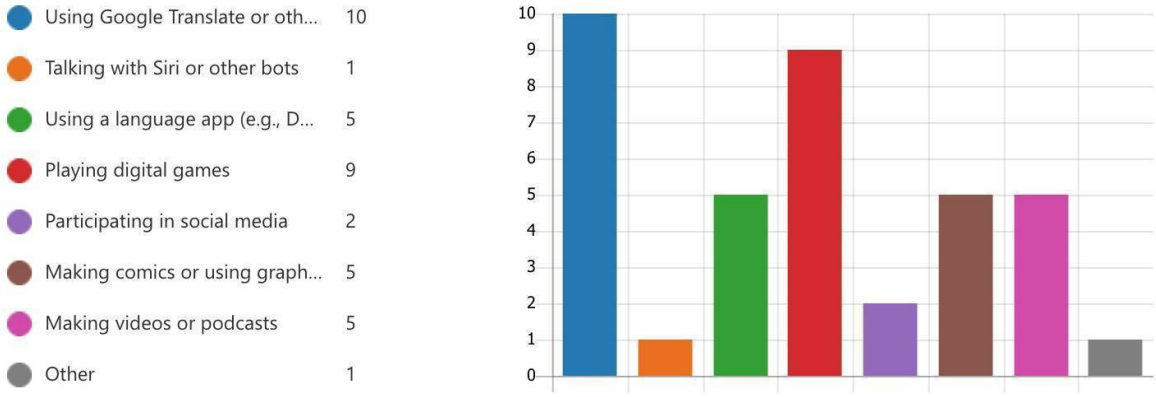
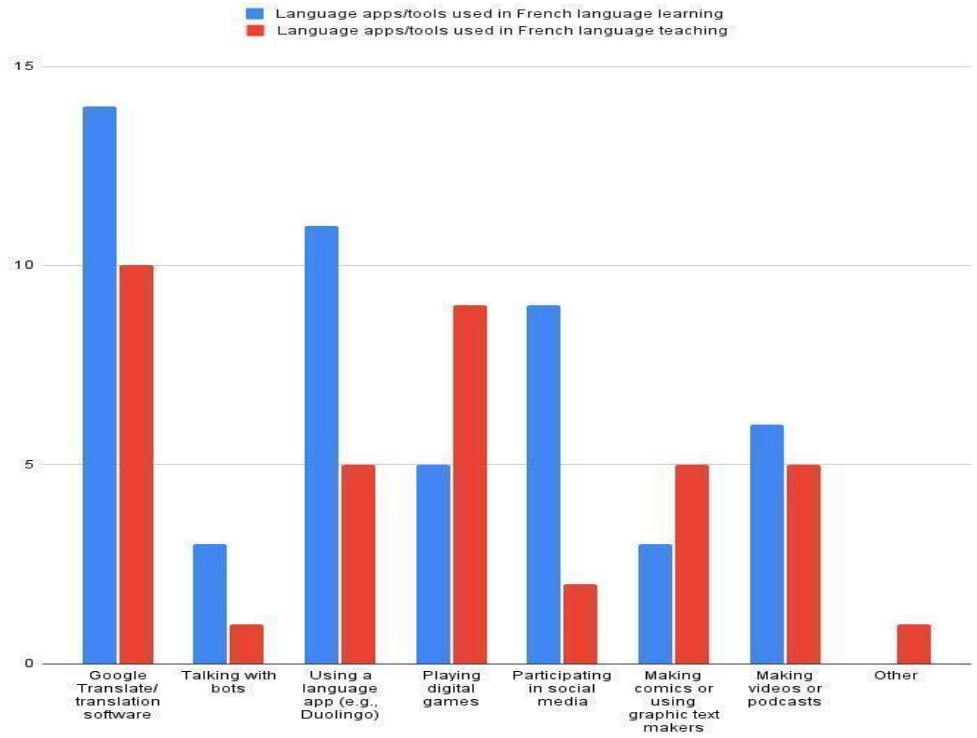


Figure 7

A Comparison of Preferred Digital Tools and Activities for French Language Learning and FSL Teaching



TCs' future plans to use digital pedagogies in the classroom echoed their exposure to learning tools, as described in previous questions. Participants expressed interest in using Padlet and other whiteboard tools, Google classroom, Kahoot, Poll everywhere, Crossword Labs, Jeopardy games, language apps, video creation, and authentic mass media resources, such as ONF or TV5, Radio Canada. Interestingly, of the 15 responses to this question, six simply signalled their intended uses of technology rather than describing the specific digital tools and functions they intended to put into classroom action. For example, one participant planned to use digital tools in FSL teaching: "by letting my students use them to let them learn. To get them more interested in learning French. Incorporating them into lessons as much as I can." Three participants stated that using technology would make French more interesting and engaging, and learning less intimidating, but did not say how. One participant stated, "Daily for oral, listening, and reading and writing activities to make French more modern and engaging for my students." Another explained: "I want to use digital tools in an authentic and relevant way that will help my students with language acquisition. I want to use them to enhance my teaching and give students the opportunity to explore while they are learning." These vague responses suggest a questionable grasp of the span and nature of digital technologies.

Nine teacher candidates in the study claimed that their biggest challenge with online learning was conversational French, finding difficulties establishing a connection with students and coaxing students to engage in conversation. One TC attributed this to students' unwillingness to turn their cameras on during class: "Students (particularly youth, middle school and high school students) often do not turn cameras during online Zoom calls. This makes participating in digital games and conversing in French difficult." Another TC highlights the superficiality of communicating online and the difficulty of facilitating group work, explaining that online conversation is missing "face-to-face interaction and body/hand cues that might contribute to meaning. [Online conversation is m]uch more superficial and [provides] less [sic] opportunities for group work (due to difficulty organizing)." Other challenges were largely technology-related: poor internet connection and a lack of pedagogical models in online format. Another TC claimed the lack of online and virtual resources in French to be a major challenge. This is unsurprising, given FSL teachers' consistent complaints about inadequate resources and support (Office of the Commissioner of Official Languages, 2019).

In response to participants' challenges with online learning in their pre-service teacher education classes, one teacher candidate claimed, "Many professors are not well versed in the use of technology and often create confusing and difficult-to-navigate course websites. It can also seem impersonal since we do not often have interactions one on one with professors, and many take a long time to respond to emails." Another participant expressed the hardship in being in front of a screen all day: "I'm finding it difficult to stay engaged and to complete numerous readings and forums online. Being in front of a screen all day is a big challenge."

Summary and Discussion

The survey was developed to respond to guiding research questions about the digital tools, apps, and programs that FSL TCs were using for social purposes, personal learning, academic and professional communication, and in-class practice teaching, alongside how they were engaging with these tools in these contexts. The study also sought commentary on TCs' preferred digital and non-digital FSL pedagogical resources and activities, and what their concerns and teaching aspirations involving digital pedagogies included. The survey responses were first tabulated, charted, and internally compared, and the comments were qualitatively summarized. The summarized, tabulated data were then shared and discussed by the core research team within the specific aims of the survey, but also in light of the research team's parent research project on mobile digital production pedagogies.

The team's first observation concerns the poor response rate to our carefully constructed and trialled survey, which had been repeatedly field-tested at five to eight minutes' completion time. It is possible that the survey respondents themselves answered this, at least in part, in their comments: they were suffering from screen fatigue, particularly under conditions where their own instructors were still struggling to adapt to online learning environments and to model innovative learner-centred pedagogies. In Ontario, where all researchers and survey respondents reside, the pandemic resulted in numerous, lengthy lockdown periods with restrictions on physical social communication. During periodic stay-at-home orders, social communication apart from within the household and in selected social bubbles in some regions required a digital interface. Universities across the province closed their doors in mid-March 2020, cautiously reopening in 2021–2022, many with continued online course options.

The 17 respondents to our survey were overwhelmingly female, living in urban areas of different population densities across southern Ontario. The sample included TCs preparing to teach at all levels from P/J through J/I to I/S levels in schools, with the bulk of respondents in I/S programs. TCs hoped to teach predominantly Core French but also Immersion, and/or Extended French upon graduation. Their practice teaching exposure covered an inconsistent gamut of in-class and/or online experiences; classroom and/or community placements; and even emergency online teaching. Also reported were no practice teaching opportunities, which indicates that a few TCs may have responded hypothetically to some of our questions. In a gracious interpretation of TCs' inconsistent teaching practica, we acknowledge the pressures that faculties of education experienced during pandemic closures.

What Digital Tools Are FSL TCs Using for Social Communication and Personal French Learning?

Our first question asked about the digital tools that FSL TCs were using for social communication and for their own French learning. In keeping with global trends (B. Martin, 2017), TCs indicated a distinct preference for mobile devices, especially smartphones. Interestingly, no one in our pool of respondents reported using a video-game console at home, though they named digital games as a go-to activity for learning French, so these, we assume, are web-based or apps and are educationally focused. Their reported digital social communication activities were based on Web 2.0 connectivity, echoing Webb et al.'s (2018) findings that Web 3.0 smart affordances were poorly utilized by teachers in general: social media posting and sharing as well as blogging and website building, with only limited interactive creative participation in digital communities, such as fan fiction or media arts. This lack of creative participation was less apparent in their preferred digital tools and activities for French language learning, which, although they leaned heavily on consumer-oriented and conservative translation software and language apps, also extended to social media participation, making videos and podcasts, and playing digital games.

TCs' digital activity use was motivated and informed primarily by the use of commercial language apps, such as Duolingo, which are developed by software developers, not language teaching professionals. Commercial apps use decontextualized drills, thinly veiled by gamification strategies (e.g., rewards, badges) to keep learners in the "game" (see Lotherington et al., 2021, for discussion). The respondents' preferred digital activities and tools suggest a conservative bent in their digital participation and a lack of awareness or facility with innovative, agentive, and creative digital pedagogies that utilize digital tools for productive multimodal creation, such as digital storytelling (Anderson et al., 2018; Kalyaniwala-Thapliyal, 2016), cellphilms (MacEntee et al., 2016), collaborative game building, and gameplay (Reinders & Wattana, 2015; Scholz, 2017).

How Are FSL Teacher Candidates Engaging with Digital Tools in Teacher Education Programs and in FSL Classroom Use?

The second question probed TCs' academic use of digital tools and pedagogies, for their teacher education programs and in FSL classroom use. The digital tools reported in TCs' academic learning included basic and common teaching programs and platforms, such as Kahoot, eClass, and Zoom, which are in widespread educational use. Kahoot is a simple digital quiz tool in a game-like format. Learning management technologies, such as eClass and Google classroom, are administrative in scope and functionality. Zoom is an interactive conferencing program. The digital tools that TCs were learning in their programs did, for better or worse, inform their classroom practices, and this leads us to question the degree of emphasis on creative, customized, and culturally contextualized uses of digital pedagogies in teacher education programs across the province.

The licensing of commercial programs and corporate platforms to facilitate online learning, such as Zoom, learning management systems, as well as accessing free Google applications such as Jamboard, must be distinguished from harnessing the open-ended toolkits for multimodal design and situated language application loaded onto even basic smartphones and tablets in the form of still and video cameras, recording and editing programs, music software, art and design programs, and so forth. TCs' application of technological resources recalls Yot-Domínguez and Marcelo's (2017) finding that university students were using sophisticated digital technologies unimaginatively for simple searching, storing, and sharing tasks. As Hébert et al. (2022) point out, even before the pandemic, innovative classroom uses of new technologies for digital storytelling and other inquiry-driven literary/language practices faced barriers because they did not conform to the prevailing logic of school assessment and therefore were not recognized as "serious" expressions of learning.

Participants' lack of innovative digital tool use extending beyond what they had been exposed to in their teacher education programs suggests that candidates are being subjected to a practical training program rather than the criticality of a university education. This starkly contrasts with earlier fears from the mid-1990s that university-based teacher education would bias theory over practice (Sheehan & Fullan, 1995).

TC aspirations to mobilize digital media creatively and productively to inspire interest and engagement were vague and undertheorized and generally unsupported by innovative, practical models. Their relative timidity toward experimenting with creative digital pedagogies involving augmented reality, gaming, and multimodal production in their teaching may also reflect competing FSL teaching agendas in that FSL teachers must "comply" with the provincial expectations and curriculum objectives while paradoxically being tasked with pedagogical innovation. Given that numerous survey respondents were not being creatively challenged in their own classes, perhaps they felt that the appropriate response to COVID-19 conditions was to teach as they had been taught. Despite recent studies reinforcing the importance of integrating technology into classroom learning in meaningful ways (People for Education, 2019), FSL teachers are simultaneously warned by policymakers that the uses of technology in the classroom have potential risks (Ontario Ministry of Education, 2014, p. 52). This cryptic caution is highly problematic in an age in which digital technologies are required to bridge the communication divide and must be configured into pedagogical design and critically reflected upon by teachers and students alike. As Sauro and Zourou (2019) point out, digital "wilds" are too often tamed to fit the institutional and curricular constraints of formal education contexts, in turn preventing the full range of technology-mediated contexts, maker roles, and interest-driven uses of authentic artifacts in the classroom.

What Resources, Digital and Non-Digital, Are TCs Using in Their FSL Teaching Practice Assignments?

The third research question interrogated TCs' preferred pedagogical activities and resources in the FSL classroom. Preferred FSL teaching activities included small-group discussion, immersion media activities with authentic resources, and target language and culture materials, which closely mirrored TCs' preferred methods of language learning. Viswanathan (2016) highlights French language teachers' tendency to teach according to their own beliefs about "the nature of second language teaching and learning including how to best teach a second language [and] which resources to use" (p. 28). In her study, teachers were found to adopt pedagogical practices consistent with their beliefs, which were "most strongly influenced by their prior learning experiences" (p. 28). With the exception of individual work, TCs' preferred activities reflect common FSL pedagogy ideals, for example, the importance of immersion in the target language to facilitate learning.

The roots of FSL teaching and learning methods are located in FSL immersion pedagogies developed in Canada in the 1960s (Swain & Lapkin, 2011). Wallace Lambert's successful experiments with French immersion in the mid-1960s in suburban Montreal formed a blueprint for French immersion programs, though approaches have, of course, continued to develop (Swain & Lapkin, 2011). Nonetheless, the theory of the era supporting second language learning included the hypothesis that learners immersed in a "natural" environment would acquire a second language more efficiently than those taught the language as a "subject" (Krashen, 1984), an essentially unprovable proposition (Spada & Lightbown, 2020). Further, immersion pedagogy persists in prioritizing the development of four distinct skills (reading, listening, speaking, and writing) toward communicative competence as conceived in the context of 1980s media for FSL in the context of Ontario (Canale, 1983; Canale & Swain, 1980). As pointed out, the communicative language skills and competence framework is a poor fit for the digital communication needs of today's language learners (Kern, 2021; Lotherington & Bradley, in press 2022). Though a grounding in communicative competence, created as it was for FSL, seems tailored to the particular context we were investigating (rather than English as a second language worldwide, for example), it is important to stress how outdated the media supporting the conceptualization of "language skills" and competencies in 1980 are in 2022 (Lotherington & Sinitskaya Ronda, 2014). The multimodal, collaborative, interactive design skills needed for contemporary digital communication far exceed the boundaries of traditionally isolated skills and pre-digital competencies (Blake, 2016; Lotherington, 2004; Lotherington & Sinitskaya Ronda, 2014). Though TCs' approach to digital technologies suggests that FSL teacher education might be trapped in mid-twentieth-century pedagogies, it is also worth noting the challenges novice teachers face in implementing new approaches and pedagogical perspectives in the classroom (see Smagorinsky, 2010; Smagorinsky et al., 2004). Student teachers are faced with the tension between implementing what they have learned in their university program and the reality of the classroom in which they are situated, with a mentor teacher who inevitably has their own ideas, practices, and pedagogical approaches.

What Issues and Concerns Are TCs and Their Students Facing with Digital Technologies?

Lastly, the survey asked about the issues and concerns TCs and their students were facing with digital technologies. A telling problem was the inconsistency in TCs' professional development opportunities for digital language teaching. On the one hand, nearly half the respondents reported a plethora of available

support for digital teaching in various forms: faculty conferences, in-class presentations, and various interactive groups. On the other hand, more than half the respondents reported no support for digital learning and teaching available in their teacher education programs.

The lack of support for digital pedagogies is surprising given that all teaching professionals, schoolteachers and professors alike, were diverted to online platforms virtually overnight in mid-March 2020. The universities we approached for participation in our study included large, medium, and small institutions, whose resources would no doubt be different, but given that all teaching professionals had to find support for online teaching, the reported lack of support to TCs is puzzling, especially in light of freely available provincial help sites (e.g., Ontario Extend website). Many questions emerge: Did the current climate of anxiety cause TCs to withdraw from searching for help using digital resources? Do TCs uncritically adopt commercial programs such as Duolingo and Kahoot for digital language instruction out of convenience? In teacher education programs, what digital tools are presented, and how are these tools modelled, theorized, or linked to FSL pedagogies? What are the various institutional obstacles TCs face in implementing new pedagogies and digital tools in the classroom and online (e.g., using maker pedagogies or multimodal tools where the target language can be animated in and through personalized and interest-driven creative practices)? And while a number of participants signalled interest in using technology innovatively, these gestures were vague and aspirational; almost half of TC respondents did not elaborate on their rationale or provide concrete practices or models in their responses.

Further challenges described by TCs included difficulty engaging their students in spontaneous conversations associated with face-to-face physical environments. One participant describes this as due in part to students' not turning on their cameras during Zoom calls, while others highlighted the inauthenticity of Zoom environments as well as difficulties in offering individualized support and "creating class community." A recent study by Figg et al. (2020) addressed similar challenges voiced by Ontario K–6 teachers inquiring about best practices for digital learning. The study responded to various difficulties reported by teachers such as low student engagement, lack of accountability, and a lower quality of student work online due, in part, to teacher unpreparedness and poor support: "Instructors felt frustrated with their own teaching performances and were overwhelmed by the abundance of electronic tools. Lacking the institutional support necessary to make the transition, teachers were finding it difficult to support struggling students" (p. 25).

Conclusion

Results from the small sample of FSL teacher candidates in Ontario who responded to our online survey indicate that digital pedagogies are unevenly theorized, implemented, and supported in FSL teacher education programs. While some respondents signalled they were using technology and new media in innovative ways for their own informal learning, these modes of action were not translated to formal classroom environments, nor were they validated in teacher education settings.

TCs' pedagogical experiences were generally based on common eLearning platforms, gamified quiz programs, virtual whiteboards, and conferencing software, generating more digital consumption practices than agentive and productive, learner-centred teaching. A handful of respondents had experienced no preparation at all for teaching with digital technologies in their FSL programs, which prompts us to question whether the incursion of digital communication tools in everyday life has been understood as a major game-changer in all aspects of life: social, cultural, economic, and political.

Furthermore, TCs' responses pointed to an uncritically affirmative view of technology capable of single-handedly transforming learning (e.g., making language instruction more "engaging") by simply introducing "technology" into the classroom. Respondents' inability to specify how they would utilize digital tools reflects a lack of theoretical support and practical modelling. Technology too often is casually

used to reference a device with processing power ignoring the inherent complexity of the socio-technical relationship (Bijker, 2010). A technological tool extends human potential, but people use technological tools to accomplish a purpose. This requires human thought, planning, and execution; a digital tool does not have a life of its own, though tools certainly act upon users as well. No software program will magically teach learners to speak French.

Many TCs' plans to incorporate digital resources in the classroom reflected the opinion that injecting unspecified technical programs into lessons would automatically result in more "fun" learning. However, bringing a device or program into the classroom requires a pedagogical relationship between teacher, learner(s), technological tool, and contextualized practice (i.e., way of doing, or means of engaging a challenge). Appropriate pedagogical application of digital devices and programs for language teaching and learning is not something that can be downloaded to a device, app, or program. Indeed, Kessler (2021) points out that research into CALL (computer-assisted language learning) teacher preparation has been limited but often reveals insufficient and superficial training, leaving teachers to learn digital tools independently or through short-term professional development. As we point out in this article, TCs capable with new media in their personal lives may not see such digital tools in use in their classroom environments or may be prevented from trying out creative applications.

There are limitations in our study that qualify our discussion: the response rate to our survey was low and thus not a representative sample. Nonetheless, a number of different FSL teacher education programs were captured in our sample. Thus, the responses we received were informative and generative, giving surprisingly different pictures of FSL teacher education across our province during a pandemic that turned all aspects of life upside down for the better part of two years. Though we gathered information in multiple-choice and open-ended questions, it would also have been useful to conduct post-survey interviews with volunteer case-study participants to more thoroughly understand TCs' implementation of digital tools during the pandemic.

Future research should consider (and methodically examine) the lack of systematic work with technology-mediated pedagogical competences and the use of the term "techno-pedagogical competence" (Guichon & Hauck, 2011), which is being adopted instead of "technologically mediated pedagogical competence," as reflected in our participants' inability to specify how they intend to use digital technology in the FSL classroom. This also signals opportunities for examining how networked tools might be included in language learning environments in ways that are informed by meaningful theoretical scaffolding, with practical modelling of how varieties of digital media can be leveraged to support deep, authentic, and meaningful learning and situated language use. Furthermore, future research should address the opportunities, networked resources, and affordances of everyday digital environments to socioculturally contextualize language learning within language teacher education. For example, Hebert et al. (2022) model how linguistically diverse learners of all ages use multimodal tools like Comiclife to situate language(s) in expressive narrative contexts—and apply language skills within digital stories that matter to them, that is, where language(s) is/are interwoven in story, description, and meaningful "action." Rather than further explore research questions about the educational efficacy of corporate language learning apps in their standalone uses or prescribed/standard functions, we might investigate how teachers in FSL or other environments are repurposing and/or recontextualizing these apps in relation to more dynamic and socioculturally contextualized forms of learning and doing. Other examples include Pegrum's (2017, 2019) recent work on mobile AR trails and games for language learning, shifting teaching and learning outside the typical scope of the classroom into the real world via mobile devices and place-based inquiry. Pegrum (2019) argues that "on such trails, students typically learn collaboratively in real-world settings while

practicing language, developing digital literacies and twenty-first-century skills, and often exploring culture at the same time" (p. 1230).

The survey discussed in this article forms a component of a larger funded research project documenting and creating innovative mobile production pedagogies for digital language learning. Our findings adumbrate a lack of awareness about transformative uses of digital technology and new media for FSL learning and index a paucity of innovative theory and practical modelling for teacher candidates. The state of knowledge on how language works in digital societies must infuse teacher education, not simply inform it, though it must do that too. Our data indicate that FSL teacher education needs to attend to effectively modelling strategies to explore, develop, and implement complex and innovative digital pedagogies for agentive language learning that has evolved past anachronistic language learning principles.

Acknowledgement

We gratefully acknowledge the Social Sciences and Humanities Research Council of Canada for funding the insight project, *Production Pedagogies for Language Learning in Mobile Digital Environments*.

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Appendix: Survey

FSL Online Teaching: Challenges and Opportunities

Our research team is keen to investigate how FSL teacher candidates are engaging with digital tools in their teacher education program and how these tools are being used in classroom and online FSL teaching. This survey is designed to explore challenges and opportunities of online FSL teaching and learning.

Completion of this survey implies consent. The Human Participants Review Committee at York University has approved this survey. Your participation is anonymous. The full informed consent is available here: http://bit.ly/3edN0V4 (http://bit.ly/3edN0V4).

This survey should take approximately 10 minutes to complete.

1. I live in (if rural, select the city you live closest to and 'other,' and specify in 'other' section):

- [ ] London
- [ ] North Bay
- [ ] Ottawa
- [ ] St. Catharines
- [ ] Sudbury
- [ ] Toronto
- [ ] Waterloo
- [ ] 'Other' in Ontario
- [ ] 'Other' outside Ontario
- [ ]

Other

2. My gender is:

- ◯ Female
- ◯ Male
- ◯ Non-binary
- ◯ Prefer not to say

3. I am attending this university for teacher education:

- ◯ Brock University
- ◯ Laurentian University
- ◯ Laurier University
- ◯ Nippissing University
- ◯ OISE/University of Toronto
- ◯ University of Ottawa
- ◯ Western University
- ◯ York University
- ◯ Prefer not to say

4. I am studying in this teaching stream:

- ◯ Primary/Junior
- ◯ Junior/Intermediate
- ◯ Intermediate/Senior
- ◯ _____ Other

5. I am currently in year ___ of my teaching program:

- ◯ Year 1
- ◯ Year 2

6. Do you teach any other language/s in addition to French?

- ◯ Yes
- ◯ No

7. If you answered 'yes' to question 6, what additional language(s) do you teach? If no, skip to question 8.

8. Have you done at least one teaching placement? If yes, check all that apply.

- ☐ Yes, teaching in a physical classroom
- ☐ Yes, teaching in an online class
- ☐ Yes, in community placement
- ☐ Yes, through emergency online teaching
- ☐ No

9. Upon completion of my teaching degree, I hope to teach (select all that apply):

- ☐ Core French
- ☐ Extended French
- ☐ French Immersion
- ☐ Other

Technology/Media Use

10. Do you have access to reliable high-speed internet at home?

- ◯ Yes
- ◯ No

11. What digital devices do you engage with regularly for personal use? Please check all that apply.

- ☐ iPad/Tablet
- ☐ Desktop Computer
- ☐ Laptop Computer
- ☐ Smartphone
- ☐ Cellphone
- ☐ Videogaming Console
- ☐ [ ]

Other

12. Which of the following digital activities do you engage in for personal use? Please select 'yes' or 'no' below.

	Yes	No
Blogging/website activity	◯	◯
Posting on social media	◯	◯
Taking/sharing photographs	◯	◯
Making video/audio recordings	◯	◯
Playing digital games	◯	◯
Creating/writing fanfiction	◯	◯
Artistic creation	◯	◯
Craft Activities	◯	◯

13. Of the above activities you checked 'yes' to, select the two activities you engage in most frequently. For these selections, briefly describe what you do.

    If there is another digital activity not listed above, please describe this activity here.

Language Learning and Teaching

14. What digital tools for teaching and learning French are you learning about in your FSL teacher candidate program?

15. What digital tools for teaching and learning French are your professors using with you in your FSL teacher candidate program?

16. Please tell us about your own preferred French language learning activities. Check all that apply.

"I prefer to learn by..."

- [ ] Small group discussion
- [ ] Individual work
- [ ] Textbook study of language structure and use
- [ ] Target language and culture materials (e.g. news articles, movies, novels)
- [ ] Using language apps
- [ ] Using other online resources
- [ ] Conversing with fluent speakers
- [ ] Role play
- [ ] Social opportunities for community practice
- [ ] Engaging in immersion media activities with authentic resources (e.g., movies, music)
- [ ] Playing digital language games
- [ ] Playing board or other non-digital games
- [ ] Other

17. Please tell us about your preferred French language teaching activities for your students. Check all that apply.

"I teach French using..."

- [ ] Small group discussion
- [ ] Individual work
- [ ] Textbook study of language structure and use
- [ ] Target language and culture materials (e.g. news articles, movies, novels)
- [ ] Using language apps
- [ ] Using other online resources
- [ ] Conversing with fluent speakers
- [ ] Role play
- [ ] Social opportunities for community practice
- [ ] Engaging in immersion media activities with authentic resources (e.g., movies, music)
- [ ] Playing digital language games
- [ ] Playing board or other non-digital games
- [ ] Other

18. Have you used ANY of the following language apps/tools in YOUR language learning? Please check all that apply.

- [ ] Using Google Translate or other translation software
- [ ] Talking with Siri or other bots
- [ ] Using a language app (e.g., Duolingo)
- [ ] Playing digital games
- [ ] Participating in social media
- [ ] Making comics or using graphic text makers
- [ ] Making videos or podcasts
- [ ] Other

19. Have you used ANY of the following language apps/tools in your language teaching? Please check all that apply.

- [ ] Using Google Translate or other translation software
- [ ] Talking with Siri or other bots
- [ ] Using a language app (e.g., Duolingo)
- [ ] Playing digital games
- [ ] Participating in social media
- [ ] Making comics or using graphic text makers
- [ ] Making videos or podcasts
- [ ] Other

Experiences with Digital Tools and/or Virtual Language Teaching

20. What ways are you using or planning to use digital tools in your FSL teaching?

21. What professional development support for online teaching does your FSL teacher education program provide?

22. What major challenges are you and/or your students facing in online language teaching?

Merci!

Your participation will help improve resources for online language education.