

Exploring Language Teachers' Perspectives on Hybrid Delivery with Adult Literacy Learners: A Participatory Approach to Developing a Teacher Toolkit

Marianne Barker, Paula Jireh Sampang, Geneca Henry,
Fatemeh Kazemi, Katerina Palova, and Odessa Gonzalez Benson

Canada's federally funded English language programming has historically overlooked the holistic learning needs of adult literacy learners, who have limited prior education and low English proficiency. Literacy learners' educational and language needs are further compounded by limited digital literacy, as they face barriers to accessing and navigating digital interfaces, which are increasingly integrated into educational spaces. The challenge falls on literacy instructors to address these challenges. Yet instructors lack sufficient support, training, and resources to do so effectively. This study addresses this gap using a participatory approach to develop a teacher toolkit to support literacy educators in integrating technology and transitioning to hybrid modes of instruction. The research team collaborated with an advisory group ($n = 7$) of literacy educators to co-design a teacher toolkit. The toolkit was pilot-tested by literacy educators ($n = 24$) on a local and national scale and was iteratively revised according to their feedback. Three themes emerged that shaped the toolkit: adapting a multifaceted, dynamic, flexible role as an instructor, addressing the diverse needs of literacy learners, and adapting to digital pedagogies. We explain how the toolkit addresses each theme and reflect on the methodological implications of using a participatory approach for toolkit development.

Les programmes d'apprentissage de l'anglais financés par le gouvernement fédéral canadien ont historiquement négligé les besoins holistiques d'apprentissage des apprenants adultes en apprentissage de la littératie et qui ont un niveau d'éducation préalable limité et une faible maîtrise de l'anglais. Les besoins éducatifs et linguistiques des apprenants en apprentissage de la littératie sont davantage complexifiés par une littératie numérique limitée. En effet, ces apprenants se heurtent à des obstacles pour accéder et naviguer les interfaces numériques, qui sont de plus en plus intégrées dans les espaces éducatifs. C'est aux enseignants en alphabétisation qu'il incombe de relever ces défis. Or, ces derniers ne disposent pas d'un soutien, d'une formation et de ressources suffisants pour y parvenir efficacement. Cette étude comble cette lacune en utilisant une approche participative pour développer une boîte à outils afin d'aider les enseignants en alphabétisation à intégrer la technologie et à passer à des modes d'enseignement hybrides. L'équipe de recherche a collaboré avec un groupe consultatif ($n = 7$) d'enseignants en alphabétisation pour concevoir conjointement une boîte à outils pour les enseignants. La boîte à

outils a été testée par des enseignants en alphabétisation (n = 24) à l'échelle locale et nationale et a été révisée de manière itérative en fonction de leurs commentaires. Trois thèmes ont émergé et ont façonné la boîte à outils : s'adapter à un rôle multidimensionnel, dynamique et flexible en tant qu'enseignant, répondre aux besoins variés des apprenants en alphabétisation et s'adapter aux pédagogies numériques. Nous expliquons comment la boîte à outils aborde chaque thème et réfléchissons aux implications méthodologiques de l'utilisation d'une approche participative pour le développement de boîtes à outils.

Keywords: digital literacy development, English language literacy teaching, hybrid teaching and learning, second language literacy, toolkit development

Canada's federally funded English language programming for newcomers, Language Instruction for Newcomers to Canada (LINC), recently implemented programming for literacy learners (CCLB, 2016). Literacy learners are adults who have had limited or interrupted access to formal education and are working to develop basic reading, writing, and comprehension skills (Faux & Watson, 2020). They often face challenges in navigating written language due to limited exposure to formal literacy instruction, impacting their ability to engage in everyday tasks, employment, and community (Faux & Watson, 2020). Literacy learners tend to be refugees with low English language proficiency. Despite the newly added programming for literacy learners, few policies, programs, and resources exist to train and prepare literacy educators. According to a report prepared for the Centre for Canadian Language Benchmarks, there was found to be "no consistency within the training offered to instructors to ready them for teaching such a vulnerable client group" (Kawahara & Lent, 2023, p. 3). Without addressing these shortcomings, language programming will remain limited in its ability to meet literacy learners' needs.

The increase of technology in educational contexts further complicates literacy learners' classroom and settlement experiences (Settlement Sector & Technology Task Group, 2020). Literacy learners often struggle to navigate technological infrastructures that restrict their access to and participation in LINC classes (Campana, 2021; Liu et al., 2021). Literacy learners typically come from regions where "technology is very limited in terms of usage and infrastructure" (Sabie & Ahmed, 2019, p. 218). They are less familiar with technological devices and are often unable to use computers or laptops, type, and access or navigate the internet (Edmonton Catholic School Division, 2021). Therefore, educators face a dual challenge of fostering traditional literacy skills alongside bridging digital literacy gaps.

While the LINC program was originally designed for in-person instruction (Detwyler, 2022), the COVID-19 pandemic catalyzed a shift toward online delivery—what Hodges et al. (2020) termed "emergency remote teaching" (p. 1). The trend toward blended, remote, and hybrid delivery modes has continued beyond the COVID-19 closures (Cummings & Fayed, 2022; Sturm & Pinsent-Johnson, 2022). Remote learning takes place entirely online. Blended learning combines online and in-person sessions, allowing learners to engage with digital resources within classroom contexts. Hybrid learning enables students to attend in-person or online, providing maximum flexibility but posing challenges for instructors in managing dual audiences. The advantages of online modes of course delivery include increased flexibility for teachers and learners, improved attendance and engagement (Cummings et al., 2020; Detwyler, 2022; Lakhal et al., 2017; Parra & Abdelmalak, 2016; Sturm et al., 2018; Wang et al., 2017; Weitze et al., 2013; Wiles & Ball, 2013), and the potential for more equitable access to education (Bower et al., 2015; Norberg, 2012) and service delivery (Liu et al., 2021). These promising positives underline the importance

of integrating hybrid policies into language programming and training teachers to implement hybrid pedagogy.

Integrating technology into language teaching requires an equity lens that accounts for how increasingly digitized learning modes disproportionately impact literacy learners' access to educational opportunities (González & Doan, 2024). Access to the digital world is increasingly considered a human right, but for newcomers in Canada, digital inequity stems from a lack of access to a reliable internet connection or digital devices and from low levels of digital literacy skills (Campana, 2021; Settlement Sector & Technology Task Group, 2020). Yet closing this gap by supporting newcomers to access hybrid education could empower those in vulnerable situations with complex needs, such as women with caregiving responsibilities or seniors with mobility challenges (Yuan et al., 2019).

This study sought to identify challenges in adopting hybrid pedagogy in literacy programming and to develop a teacher toolkit that was intended to provide literacy educators with information and tangible, practical tools and approaches to address current gaps in knowledge and practice in classrooms. The guiding research questions for this project were (1) What are the needs of literacy teachers in integrating digital technologies and moving towards hybrid delivery in classrooms with literacy students? and (2) How may these needs begin to be addressed via a teacher toolkit? In this article, we present insights gained from teachers and administrators (together referred to as "educators" henceforth) through a participatory process of developing a teacher toolkit for hybrid classrooms with adult literacy students.

Literature Review

Literacy Learners

Literacy learners are most often refugees who face multiple challenges when settling, including financial insecurity, family separation, systemic discrimination, poor mental health and trauma, language barriers, loss or change of identity, and credential recognition (CCLB, 2016; Ghahari et al., 2020; Heidinger, 2022; Sabie & Ahmed, 2019; Simich et al., 2005). As such, literacy learners represent a vulnerable group who require tailored support to meet their complex needs. Settlement services have traditionally grouped refugees with other immigrants, assuming they could benefit from the same service provision with the same measurement standards. This has been the case in the government-funded LINC program (Huang, 2022; Sturm et al., 2018), where landed immigrants and refugees who access the LINC program are typically placed in a literacy class, which is intended for newcomers who score pre-benchmark levels on the Canadian Language Benchmark Assessment (Government of Canada, 2011). The literacy stream has evolved considerably to support these vulnerable learners with limited prior formal education and familiarity with classroom settings and learning strategies. The literacy stream currently supports learners who are "in the process of developing literacy, numeracy, and digital skills to help them interact in community, workplace, and educational environments" (CCLB, 2016, p. 2).

Literacy learners may face barriers to attending classes, including childcare needs, health issues, financial limitations, employment, living in isolated areas, and not knowing where to access information and resources (Benseman, 2014). In the classroom, further barriers to learning include psychological trauma and lack of access to counselling (CCLB, 2016). Literacy learners tend to have underdeveloped cognitive skills, such as problem-solving, "interpreting figures, text organization ... left-to-right orientation, associating symbols with objects, and picture interpretation" (Benseman, 2014, p. 94). Barriers are greater for older people, asylum seekers, those with physical disabilities, women, and youth (Benseman, 2014).

In literacy classrooms, teachers must address these cognitive and social gaps by supporting students in developing abstract thinking skills, print, picture, and symbol recognition, phonological awareness,

familiarity with task types that are not intuitive, skills for processing information, and metalinguistic awareness (Bigelow & Lovrien Schwarz, 2010; Faux & Watson, 2020). Literacy teachers must create a positive and safe atmosphere, practice trauma-informed teaching, make content relevant using culturally familiar ways of linking concepts, find ways to boost self-confidence, adapt materials and assessments, introduce skills slowly, develop classroom habits, and incorporate students' first languages (Benseman, 2014).

Literacy Students and the Digital Gap

According to the United Nations Educational, Scientific, and Cultural Organization (UNESCO), *Global Framework of Reference on Digital Literacy Skills* (2018), digital literacy is “the ability to access, manage, understand, integrate, communicate, evaluate, and create information safely and appropriately through digital technologies for employment, decent jobs, and entrepreneurship” (p. 6). Beyond economic outcomes, digital literacy also enables people to “communicate information in order to function in a knowledge society” (Moriarty, 2011, p. 17). Briefly, digital literacy entails knowing how, when, and with whom to use technological tools safely.

Communicating in technologically rich environments requires interpreting logic and meaning hierarchies when linear text is combined with website design, links, images, and videos by multiple authors in real time. Suni and Tammelin-Laine (2020) suggest that digital literacy should be introduced at the earliest levels when working with migrant adults. This is consistent with Smythe's (2012) view that traditional literacy skills must not be considered a prerequisite to digital literacy, leading to practices that “restrict access to a full repertoire of digital literacy and learning opportunities” and that, therefore, “increase, rather than mitigate digital inequality” (p. 8). Digital skills should be taught simultaneously in English as a Second Language (ESL) classrooms, introducing the multimodality of image, space, text, time, and sound in a social context.

Literacy learners often have limited technological skills, which “undermines efforts to obtain employment, acquire information, complete online financial transactions, and access digital government services after coming to Canada” (Sabie & Ahmed, 2019, p. 219). The digital literacy gap is further exacerbated by socioeconomic status. In Canada, access to digital resources and technological tools is correlated to age, income, and geographic location. As of 2020, 94% of Canadian households had internet access, leaving about 6% without access. Among those without home internet, 63% cited a lack of need or interest, while 26% reported that the cost of internet services was a barrier, and 13% cited the cost of digital equipment as an obstacle (Statistics Canada, 2021). This highlights ongoing affordability and accessibility challenges. Unequal access to resources reflects a pattern of systemic inequality where shifts are needed in infrastructure or in decreasing or subsidizing costs.

Despite the infrastructural issues, this gap can partially be addressed in ESL programming by developing digital literacy among students. Incorporating technology into classrooms can improve student engagement and independence, improve students' digital skills, and extend learning beyond the classroom walls (Cummings & Fayed, 2022). However, limited time and teachers' skill gaps can limit their willingness to teach digital skills (Shebansky, 2018). Teachers face low uptake of technological tools due to learners' varying digital abilities, the cost of software and hardware, and lack of training and support in evaluating technology use (Gunderson et al., 2020). This highlights the need to develop resources and training tools that can support teachers in cultivating digital literacy among students.

Gap in Literacy Teacher Training

The literature emphasizes a gap in training teachers of adult literacy students, especially in competencies needed for hybrid delivery. Cummings and Fayed (2022) note that the shift toward hybrid learning in ESL programs highlights a lack of preparedness for many educators. Although these educators possess strong foundational teaching skills, they lack the digital and pedagogical training essential for adapting content to digital platforms, engaging students remotely, and supporting learners' technological needs. The Settlement Sector & Technology Task Group (2020) confirms this gap, reporting that the transition to digital delivery has not been matched with sufficient support for educators. Scarce instructor training has been developed to address this need, which has left teachers to navigate their challenges independently, resulting in a wide range of approaches. The Settlement Sector & Technology Task Group highlights that as teachers face the dual task of delivering language and literacy instruction while also helping adult learners acquire digital skills, many struggle to create learning experiences that are both accessible and meaningful for adult learners, which can lead to decreased student engagement and learning outcomes.

There is also a need to support teachers of adult literacy learners who have distinct learning styles and needs (Bow Valley College, 2018), and they benefit from instructional approaches that are flexible, culturally relevant, and sensitive to their life experiences. Adult learners often juggle work, family, and other responsibilities, making adjusting to learning environments and schedules difficult. Consequently, instructors require specialized knowledge to modify teaching practices to meet adult literacy learners' distinct needs and challenges (Gunderson et al., 2020; Settlement Sector & Technology Task Group, 2020).

An Equity Lens: The Digital Divide and Digital Literacy for Literacy Learners

The digital literacy gap presents an equity issue for literacy learners, as a systemic digital divide separates internet users from non-users (Gunderson et al., 2020). Digital literacy enables participation in all dimensions of life, including employment, social participation, and political involvement. Moriarty (2011) notes that educational and employment opportunities are often inaccessible without technological skills. Smythe (2012) suggests that digital literacy controls access to information and services, including childcare subsidies, employment insurance, and other forms of social assistance. Digital literacy and participation in the online world are increasingly viewed as basic human functions. Therefore, giving literacy learners access to opportunities to enhance their digital literacy is an equity-focused endeavour.

Theoretical Framework

This study began during the COVID-19 pandemic in response to the immediate needs of literacy educators navigating hybrid learning environments. We set out to engage educators in participatory research, which enabled us to co-develop practical strategies and tools directly informed by teachers' experiences and challenges. Participatory action research (PAR) is an ideal theoretical framework for designing a teacher toolkit because it prioritizes collaborative inquiry and participant-led research (Cornish et al., 2023; Jacobs, 2016; Kemmis et al., 2015). PAR enables partnering with educators to prioritize their knowledge and experience and ensure that the research process and outcomes are aligned with their needs (Lambirth et al., 2019). Engaging literacy educators as experts enables professional learning (Jones, 2021) among those who would directly benefit from and apply the toolkit. In this framework, educators took an active role in shaping its content, structure, and functionality. We anticipated that this framework would support us in addressing our guiding questions, resulting in a toolkit grounded in practical knowledge and responsive

to the needs and challenges teachers face. Furthermore, PAR's cyclical process of reflection and action guided our iterative toolkit development methodology (Kemmis et al., 2015), as described below.

Methodology

Educators' Toolkit to Address a Gap in Knowledge

We collected and analyzed data to develop a teacher's toolkit that supports literacy teachers in integrating technology, developing digital literacy, and moving toward hybrid delivery in literacy classrooms. The American Library Association (n.d.) defines a toolkit as "a collection of authoritative and adaptable resources for front-line staff that enables them to learn about an issue and identify approaches for addressing them" (p. 1). Toolkit development is beneficial when the topic is emerging or evolving, and there is no widely adopted approach to address the issue, as a toolkit can provide information and guidelines for best practices (Bermudez, 2018). Many examples demonstrate toolkit development as an effective way to identify tangible, practical tools and approaches to solve real problems (Keddem et al., 2017; King et al., 2017; Thoele et al., 2020). Particularly in the field of teacher development, diverse exemplars of research-based toolkit development include a teaching and learning toolkit with practical takeaways for higher education (Eynon & Iuzzini, 2020), a toolkit developed in collaboration with practitioners containing socio-material tools to support teachers in using technologies with neurodiverse students (Scheepmaker et al., 2021), and a teacher toolkit developed as part of a master's study to support adult ESL learners in blended learning classrooms (Dorendorf, 2021).

Our research followed the steps outlined by institutions including the University of California Berkeley (2019) and the American Library Association (n.d.), which provide guidance on developing toolkits. The process included identifying the audience; determining the scope; identifying a strategy for creating content; developing evidence-based content; vetting content for relevance, currency, reliability, ease of understanding, and adaptability; organizing the resources in a logical format and creating a cohesive resource; piloting and refining the toolkit; and disseminating findings. Bermudez (2018) notes that toolkit development is a non-linear process in which "constant consultation and discussion" (para 5) between developers and those who the toolkit is intended to benefit is required. The process is iterative, collecting input through dialogue, written comments, and writing and revising to bring information together from diverse sources and people. Toolkit development can involve the formation of an advisory committee and pilot group to inform the content, design, and potential use in practice (Sezier et al., 2018).

Participatory Approach for Research and Toolkit Development

The toolkit development process was well aligned with a participatory approach. We collaborated with teachers and administrators. This approach prioritizes the expertise and experience-based perspectives of those most involved in the topic of exploration (Hall, 1984; Kemmis et al., 2014; Lewin, 1946). We aimed to engage with educators in the design and pilot phases to co-develop a practical toolkit of resources, information, and ideas that could be used in literacy classes. Participatory research is also a non-linear, reflective, and iterative process (Galletta & Torre, 2019; Noffke & Somehk, 2011). Below, we illustrate how our research design sought to incorporate participants' perspectives over iterative cycles of toolkit design and piloting. This study gained ethical approval from the Institutional Review Board at the University of Michigan, and all participants provided informed consent.

Stage 1: Advisory Co-Creation Group

The first stage entailed assembling an advisory co-creation group of teachers ($n = 7$) at two settlement organizations in Alberta, one digital design expert, one university researcher, and two community-based researchers who served as the advisory group coordinators; the latter were part of the research team that later developed the toolkit. Group members participated in 25 remote meetings conducted virtually from October 2022 to April 2023. The advisory group meetings drew on the collective expertise, knowledge, and practical insights to identify key elements for implementing a hybrid approach for adult literacy classrooms. Early meetings focused on identifying considerations for developing digital literacy skills and exploring the dynamics of hybrid classroom pedagogy. Later meetings focused on identifying practical advice and solutions to address challenges.

Stage 2: Developing the Toolkit

Insights and themes from the meetings were incorporated into content for the first edition of the toolkit (Version 1, henceforth V1) by the research team, which included the two researchers on the advisory group and four researchers involved in the project. The content included four sections: (1) introducing hybrid in literacy classrooms by defining hybrid models and describing literacy students; (2) planning for hybrid and preparing literacy students for hybrid forms of learning; (3) technological devices and resources to support hybrid teaching and learning; and (4) how to manage hybrid classrooms, improve engagement, and consider privacy-related issues. V1 was revised and refined into a second version (V2) based on data collected from local-level piloting, and a third version (V3) incorporated data from wider-scale piloting; each revised version of the toolkit was developed by the research team.

Stage 3: Piloting the Toolkit (at Local and National Levels)

The piloting of the toolkit was an iterative process in which literacy educators and educational administrators from local settlement organizations and national literacy service providers across Canada were invited to share their experiences as they piloted the toolkit, contents, resources, and layout. The piloting aimed to explore literacy educators' needs by placing them as collaborators in the toolkit development process. The ongoing involvement of literacy educators during this stage remained crucial to ensure that the toolkit adequately captured and addressed teachers' needs for the hybrid literacy classroom.

The V1 pilot of the toolkit was completed at the local level in [Western Province – redacted for review], Canada, with literacy educators ($n = 14$) from two settlement organizations. Participants were recruited via convenience sampling. The pilot group was invited to use the toolkit in their classrooms over two months. Two focus groups were conducted (one with pilot participants from each settlement organization) to collect data about their experiences using the toolkit. The type of feedback we received centred on practical considerations and tangible tools needed to support participants' experiences in the hybrid classroom with literacy students. Focus groups were recorded and transcribed, and these data were used to generate V2. Participants received a small honorarium upon the project's completion as a token of appreciation for their involvement.

A national-scale pilot of V2 was completed with a second group of literacy educators ($n = 10$) from British Columbia, Alberta, Manitoba, Ontario, Nova Scotia, and Prince Edward Island. Participants were recruited through an online survey distributed by email to LINC literacy service providers across Canada. The national pilot group was invited to review the toolkit, test concepts or activities in their classrooms, and provide feedback through an online survey. The survey included questions to evaluate the usefulness

and appropriateness of toolkit contents and an open-ended question to solicit general feedback. The type of feedback we received focused on presenting toolkit contents in a more user-friendly layout and fine-tuning teaching suggestions and resources. The feedback was used to generate V3. All literacy educators received a small honorarium at the end of the project as a gesture of appreciation.

Analytic Approach

Our analytic approach viewed the toolkit versions as reflective of literacy instructors' insights throughout the iterative process. Our analysis did not focus on the toolkit itself as a data source. Instead, the analysis focused on data collected from three sources: the advisory co-creation group meetings, local-scale pilot focus groups, and the national-scale pilot survey. These data sources were analyzed thematically using an inductive approach. Thematic analysis was deemed a suitable analytical approach to identify and interpret patterns within data (Naeem et al., 2023), and inductive coding was used to develop codes from topics emerging from the data (Fereday & Muir-Cochrane, 2006). The research team collaboratively identified codes from the data based on participants' perspectives, and the research team met recurrently to develop themes representative of codes that resurfaced throughout each stage of the project. A theme was developed when a pattern of related codes emerged across data sources and stages of the project. As such, for each theme presented below, we include data from the advisory co-creation group stage and local- and national-scale piloting. Throughout the findings, we present images from the toolkit to illustrate how the themes identified shaped the toolkit development process.

Methodological Reflections and Implications

Designing a toolkit as a participatory approach offered both opportunities and challenges. The emphasis on collaboration and community engagement proved invaluable in developing the toolkit. Leveraging the knowledge and expertise of educators who are experts in literacy education ensured that the toolkit was relevant and practical for the target audience. The iterative nature of the participatory process allowed for ongoing feedback loops, enabling continuous refinement of the toolkit's resources based on real experiences and insights.

The development team sought to be dynamic and flexible to accommodate the demands of participatory research. Team members played roles as facilitators, co-learners alongside educators, and partners in the toolkit development process. This collaborative approach sought to ensure the toolkit was not merely a product of academic research but a co-creation with the practitioners who would ultimately benefit from and use it. While moving toward innovation in hybrid modes of literacy course delivery, the team worked to remain flexible to ensure relevance and usability across contexts, given organizational and policy constraints.

Throughout the process, the research team sought to give careful attention to managing power dynamics to foster a genuinely collaborative and equitable environment. The research team worked on ensuring the voices and perspectives of all group members were heard and respected. To support balanced participation, topics were identified for each meeting to set up a framework that allowed members to expand upon or redirect discussions based on their insights. Aiming to minimize hierarchy, researchers played facilitative rather than directive roles, ensuring that participants could steer discussions. The research team encouraged open dialogue, particularly where different professional perspectives emerged, facilitating dialogues among literacy educators with ranging attitudes toward and experience with hybrid teaching. To acknowledge the valuable contributions of time, expertise, and active involvement of the advisory co-creation group members, a small honorarium was provided at the end of the project.

Findings

The project delivered the *Toolkit for Sustainable Hybrid Instruction for Adult Literacy Learners: Balancing Flexibility & Structure* (TIES, 2023). The toolkit contains resources, information, and support for educators about integrating digital technologies and hybrid approaches into their classrooms and programs. To address Research Question 1, exploring the needs of literacy teachers in hybrid settings, we present three main themes about teachers' needs: adopting a multifaceted, dynamic, flexible role as teacher; addressing the diverse needs of literacy learners; and adapting to digital pedagogies. To present the findings, we highlight data from the advisory group, focus groups, and qualitative surveys. To address Research Question 2, regarding how literacy teachers' needs can be addressed through a teacher toolkit, we present excerpts to illustrate how the themes identified were incorporated into the toolkit content to address teachers' needs.

Adopting a Multifaceted, Dynamic, Flexible Role as a Teacher

The first theme highlights the multifaceted role the teacher must play in incorporating digital activities and interfaces in literacy classrooms and adjusting teaching methods to accommodate both online and in-person instruction. Participants emphasized that supporting students in hybrid settings required a dynamic and flexible approach to classroom management, instructional efficiency, and time management. One teacher in the advisory group reflected that they would need to adapt their pedagogy for a hybrid classroom: "Are teachers able to talk to students on the screen at the same time as the students in the classroom? Are teachers consistently repeating instructions for both audiences and taking up class time that can be used for activities?" The student-teacher relationship and classroom interaction were also discussed. The group discussed strategies that would enable hybrid delivery to harness some of the same features of in-person classes. They suggested ideas such as integrating messaging apps to increase informal communication among peers, planning in-person field-trip activities, and optimizing online learning management systems for literacy learners. Incorporating ideas and strategies arising from discussions, V1 included information on setting up and managing hybrid classrooms, using technology strategically to foster interaction between in-person and online students, and extending teaching skills and planning dynamic activities to engage all learners in a hybrid space.

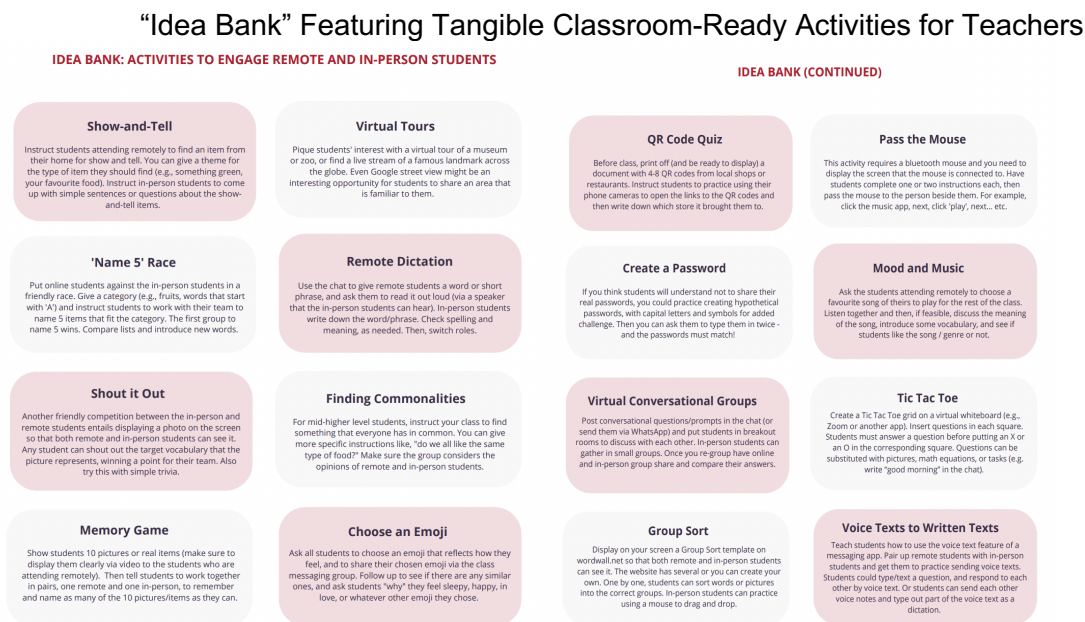
During the local piloting stage, as participants trialled suggestions set out in V1, we expanded our understanding of how literacy educators adapted teaching strategies for hybrid environments. When setting up the classroom space, one participant reflected, "I made a change that had to do with the projector and positioning in the classroom.... I've moved my keyboard to the back of the room. So when I was teaching before ... I was in the front of the class, and I had the students behind me [and] it's like I forgot about them." Another teacher shared that she had integrated technology by incorporating a tablet into her teaching routine, having students who attend in-person take turns to practice using a stylus and tablet to write the date, which was projected via Zoom to the whole class. Participating pilot teachers also discussed adjusting their approach to nurturing a sense of community in online spaces. One participant explained, "Online, you can still feel the sense of community. [It] doesn't mean, just because we're online now, that we can ... teach exactly the same way online ... but I think you can do classroom engagement, foster a sense of community, even though they are an online class." Based on the feedback collected during the piloting stage, the research team added additional recommendations on setting up hybrid spaces, and we included suggestions for fostering a sense of community and connectedness within the hybrid classroom.

Pilot participants identified a key challenge in finding suitable online resources for literacy learners. During the advisory group sessions, the research team discussed online resources to support hybrid

learning with literacy students. Based on that discussion, V1 included a concise bullet-point list of four literacy resource websites, including the TIES Literacy Centre of Expertise, the Bow Valley Literacy Readers, ABC English, and the Minnesota Literacy Council ESL Story Bank. During the local piloting, participants expressed that they expected the toolkit to be more practical and exhaustive in its resource offering. One participant highlighted the dearth of resources in their practice: “One of the most challenging things in finding resources is adult appropriateness. We can find tons of reading, like, ‘Hello, kids! Let’s read the letter A!’ But it’s a bunch of adults, you know? Or it’s like British English.” Participants wanted a robust bank of targeted and level-appropriate resources and activities. The research team probed further during focus groups to identify online resources, and we added to V2, including Learning Chocolate, Nearpod, and Kahoot. In the national-scale pilot stage, participants continued to suggest specific resources, such as ELLII, Wordwall, Games to Learn English, Classroom Screen, and other resources on trackpad practice, typing, and numeracy, which were added to V3.

V3 includes a robust resource section with over 17 recommended resources for literacy language teaching, for building digital literacy skills, and for teachers’ professional development. V3 consists of an idea bank of activities to engage remote and in-person students simultaneously (see Figure 1), giving teachers tangible ways to expand their pedagogical approach to include online learners. Several of these activities use an information gap approach to generate interaction between online and in-person students, such as a show-and-tell activity where online students show an item in their environment and in-class students take turns asking questions about the item. Other suggested activities focus on using technology, such as the QR Code Quiz, in which students practice scanning QR codes projected by the teacher on the online whiteboard. These resources and activities support teachers in adapting dynamic and flexible approaches to accommodating in-person and online learners.

Figure 1



Addressing the Diverse Needs of Literacy Learners

The second theme addresses not only the language-learning needs of literacy students but their holistic needs as well. In the project’s first stage, the advisory group discussed the unique needs of literacy learners

compared to mainstream learners, even distinguishing the needs of the lowest-level literacy learners (i.e., foundation-level learners) from others within the literacy stream. The advisory co-creation group determined that it may not be feasible for foundation-level learners to access hybrid learning due to their lack of familiarity with technological interfaces, classroom routines, and learning habits. Therefore, V1 was designed for teachers of mid-high literacy-level learners.

However, when V1 was piloted among local teachers, they expressed concerns that the toolkit did not address the unique needs of their foundation-level literacy learners. One participant stated, “Is this toolkit for low literacy learners? ... If you follow this like the Bible, it’s not going to make your Foundation class any more viable.” This led to discussions about hybrid as an equity policy; participants were concerned about excluding lower-level literacy learners from the hybrid framework. Participants shared examples of how their literacy students of all levels would benefit from hybrid attendance due to their complex personal needs, family commitments, and schedules. For example, one instructor shared that a student in her class with mobility difficulties benefitted from using technological devices. Another instructor shared that without hybrid delivery, her pregnant student would not have been able to finish her course. The teacher reflected on hybrid delivery:

It’s a huge equity policy. And I think that’s why it would propel me ... is from a humanistic service model approach to education. We have to move there. We live in a country where we have the technology, we have the infrastructure, and it’s just a matter of providing supports to get people to support the learners in that development part of it. So, I fully support it, but yeah, it is equity, whether it’s medical, physical, emotional.

To address this, the research team reflected on how the toolkit could better support learners across literacy levels to ensure equitable access to education. V2 was reframed to include two broad sections, titled “Introducing Digital Skills Before Going Online” and “At Mid-High Literacy Levels: Planning Ahead for Hybrid.” The former section guides teachers on cultivating digital literacy within the classroom at the lower levels, and the latter section instructs teachers on how to move students into hybrid learning when they are ready.

Even with this reorganization, during the national piloting stage a survey response indicated a need for the toolkit to further hone in on supporting lower-level literacy students:


One area that seemed to be missing was targeted help for digital learning at the lower levels.... Foundation literacy students are getting left out and left behind despite everyone’s best intentions. Due to the difficult nature of getting Foundations Literacy Students online and the lack of professional development available for teachers to learn how to help them, we are seeing less than equitable access to education in ESL/LINC programs in general.

To address this, the team set out to revise the toolkit further to address the needs of lower-level literacy learners. A page was added to V3 to guide teachers of lower-level literacy students on which sections of the toolkit would be most helpful. We also inserted a navigation symbol throughout the toolkit to indicate which resources are most suited for lower-level literacy learners. Other resources in the toolkit that were designed to recognize and remove barriers facing literacy learners include the *Teacher’s Guide to Evaluating the Hybrid Student*, which was developed to support teachers in thinking through their students’ attendance, participation habits, digital literacy skills, and home learning environment, which may vary widely from student to student. We also developed the *Personal Hybrid Learning Plan (PHLP)* (see Figure 2)

for teachers to use with students to set up individualized plans to address learners' needs and communicate a plan for hybrid learning.

Figure 2

Personal Hybrid Learning Plan



For Teachers

PERSONAL HYBRID LEARNING PLAN (FIXED-TERM REMOTE)


My student, _____, will learn online for a **fixed term**.

Reason: They will do hybrid learning because _____.

Time Period: They will attend class remotely from _____ until _____.

We have gone over the hybrid readiness checklist and remote attendance expectations.

They will need some extra help with:



Adapting to Digital Pedagogies

A third theme concerned the demand for teachers to navigate technological devices and support students' technological needs. Discussions during the advisory group meetings centred on questions such as these: What are the digital abilities of literacy students, and what digital skills do they need to know? What are the digital challenges of literacy students? (How) should teachers teach digital skills? One participant pointed out that if a student was having trouble with technological devices, the teacher would need to troubleshoot with them during breaks. In a traditional classroom setting, teachers are focused primarily on the language-related needs of their learners. Adapting pedagogy for online teaching appeared to be not a high priority for educators, to the point that one advisory group member noted some teachers in literacy settings were resistant to technology, or even "anti-technology." One teacher said, "Digital access encompasses more of the teacher's ability to maneuver the computer during class at the same time while addressing students." Access to software and hardware was also a challenge. The advisory group reflected that teachers had varying access to technological devices (e.g., interactive whiteboards, tablets, etc.). Advisory group members and pilot participants noted that Avenue.ca, the learning management system endorsed by the LINC program, was unsuitable for literacy students due to the complex range of digital skills required to access the platform (e.g., using a computer or smart device, operating an internet browser, creating an account, logging in, downloading and uploading classroom content, participating in online discussions, etc.).

These insights guided the development of resources and tools for V1; the contents include lists of technological devices to support hybrid learning and the *Hybrid Readiness Checklists* for teachers (see Figure 3) and students (see Figure 4). The *Hybrid Readiness Checklist for Students* is designed to be used with more advanced literacy students; pilot participants confirmed that the language and concepts could be too advanced for the lowest level literacy learners. This tool can be adapted as needed to simplify the language or remove components that may not be relevant. The teacher checklist is a self-assessment tool to ensure teachers can deliver hybrid instruction. Another tool, the *Digital Skills Self-Assessment*, enables teachers to reflect on their capacity to operate digital technologies, use programs and applications, troubleshoot different operating systems, and understand digital privacy.

Discussion

In this study, the team developed a teacher toolkit by collaborating with educators in literacy settings. The research set out to identify teachers' needs concerning hybrid modes of literacy-level classrooms (research question 1). Accordingly, a toolkit was developed to address these needs (research question 2) by including strategies, tools, and resources to adopt pedagogy for hybrid environments, teach holistically to meet literacy learners' needs, and adapt to digital pedagogies.

Strengths and Limitations


The strength of this research lies in its collaborative and participatory approach to developing a tailored literacy toolkit for hybrid instruction. This evidence-based iterative process resulted in a resource that fills a gap in practice by supporting literacy educators in hybrid settings. The toolkit offers best practices and tangible tools, providing structured guidance and training specifically for hybrid environments. Instructors can leverage the toolkit to integrate digital pedagogies and better support learners' diverse needs. A three-

Figure 3

Hybrid Readiness Checklist (Teacher)

HYBRID READINESS CHECKLIST (TEACHER)

Use this checklist before starting the semester/term to ensure you are equipped for delivering hybrid instruction.

- 
- I have the digital devices (e.g., Smart board, cameras, desktop computer, smartphone, laptop, tablet, etc.) I need for both at home (if required) and in the classroom.
 - I have tested all my digital devices to ensure they are working and all software is up-to-date.
 - I have tested my WiFi connectivity both at home and in the classroom.
 - I know or have made a plan to discover what devices my students will be using to access materials, and have tested my digital resources on them (e.g., laptop, Android phone, iPhone).
 - I have considered my *Digital and Remote Privacy* (p. 53) and I have made plans to protect my online privacy and that of my students.
 - I have my classroom set up for hybrid delivery:
 - Camera(s) and other digital technology placement
 - Desks/tables arrangement
 - I have a space at home to set up for emergency hybrid delivery.
 - My in-person resources have been modified for the digital space and other digital materials needed have been created or selected.
 - I have my digital resources ready for distribution.
 - I know who to contact for technical support, if needed.

part webinar series was developed and is available (TIES, n.d.) to help instructors navigate the toolkit effectively and implement its strategies in their classrooms.

A key limitation of the collaborative and participatory research process was the challenge of sustaining the advisory co-creation group over several months, particularly given the diversity of professional backgrounds among its members. Diverse perspectives had to be negotiated among literacy teachers, drawing on their classroom experience, and a digital design expert advocating for more advanced digital solutions. Reconciling these perspectives required compromise, as the group worked to balance developing tools that work in practice to meet learners' current digital literacy levels with the potential benefits of integrating more innovative technology. While funding and time limitations constrained toolkit

Figure 4

Hybrid Readiness Checklist (Student)

HYBRID READINESS CHECKLIST (STUDENT)

Use this checklist before starting your semester/term to ensure your students are equipped for remote study.



- I have gone over the following set-up requirements with the student(s)
 - Appropriate home learning space (e.g., desk, private room if possible)
 - Digital devices, WiFi connectivity
 - They know how to connect to the video conferencing platform (e.g., Zoom/Teams)

- My students have practiced accessing and using the video conferencing platform (e.g., Zoom/Teams)
 - Finding the link and logging on to the platform
 - Muting/unmuting the microphone
 - Turning on/off the camera
 - Using the chat feature (if applicable)
 - Annotations (if applicable)

- Students have home learning materials (e.g., binder, paper/notepad, markers, scissors, etc.)

- I have gone over what distractions can be at home and for other students in the class and how to lessen them:
 - Mute microphone when there is background noise at home (e.g., babies crying)
 - Private and quiet space, if possible
 - Headphones
 - No TV or music playing in the background

- I have gone over the online attendance requirements:
 - Camera policy (preferably program policy)
 - Student engagement (e.g., listening and active participation in activities)

- I have gone over basic cyber safety norms:
 - Keep written passwords in a safe place and never share them with anyone that you don't trust

development options to tools that were more manageable, future research could explore more extensive interventions, such as interventions that are web-based and long term. Another limitation is that through convenience sampling, literacy program coordinators selected teachers they believed would be a good fit for participation. While this ensured that engaged and motivated teachers joined the project, it may have introduced bias, as those chosen might not represent all literacy educators' full range of experiences and perspectives.

A final limitation was the limited scope of data collection and small sample size, which included educators primarily in the [Western Province – redacted for review] context and included only educators involved in the LINC program. A larger or more diverse participant demographic could have provided a broader understanding of the toolkit's effectiveness across different literacy settings. Also, the teachers involved in the piloting may not have had sufficient time to fully implement and assess the toolkit's impact over an entire semester with the same group of students; the limited two-month timeframes may have influenced the depth of insights and the ability to observe long-term effects. The sustainability of the toolkit also poses a challenge, given the rapidly evolving landscape of educational technology. Without further updates and maintenance, the toolkit's relevance and effectiveness could wane over time.

Beyond the Toolkit and Future Research

Somewhat beyond the scope of this project and the toolkit, the analysis highlighted a further set of challenges that literacy educators face concerning organizational factors. Such factors were beyond the classroom level, with some challenges best addressed at the organizational or policy level. For instance, it was suggested that implementing a digital onboarding course for literacy students could support their ability to use technology and attend remotely, as highlighted by Bower et al. (2015), who emphasized that effective technology integration is crucial for promoting student understanding. Another suggestion was to establish attendance and participation policies tailored to online students to ensure they remain active learners; this finding aligns with several studies reporting the importance of structured engagement strategies and tailored attendance models for online environments (Doğan & Saraç, 2022; Li et al., 2023; Szeto & Cheng, 2016). Another organizational need was professional development opportunities tailored specifically to literacy teachers to enhance their knowledge and competencies in literacy teaching and digital pedagogies. As Detwyler (2022) suggests, comprehensive training in technology use is essential for teachers to implement hybrid pedagogies in LINC programs effectively. The toolkit development process was challenging because of the need to balance innovative approaches with practical implementation constraints. The research team and participants shared innovative ideas constrained by the existing organizational and policy structures and limited resources, particularly regarding the technological resources available.

The organizational and policy implications derived from this toolkit development process also build on literature concerning equity in literacy education. While teachers can work in their locality to empower literacy learners to close achievement gaps, equity is a systemic issue requiring multi-faceted solutions, such as advocating for policies prioritizing equitable resource distribution, funding for hybrid-enabling digital tools, and culturally responsive trauma-informed pedagogy. A holistic approach to literacy education spans beyond teachers providing individualized support for learners and includes broad change that promotes inclusivity and fairness in accessing education and technology.

Future research in this field should explore the literacy education landscape with an equity lens to address some organizational and policy-level challenges discussed above. Second, more research is needed on pedagogical approaches that could enable teachers to leverage technology in literacy education further. It would be worthwhile to examine the effectiveness of specific technological tools and platforms used in hybrid instruction to determine which are the most beneficial for improving literacy outcomes, particularly for the LINC program. Third, there is a need to examine the professional development needs of literacy educators and develop training programs to meet their information needs. Relatedly, the field needs increased knowledge sharing and dissemination of best practices among literacy educators and organizations to increase the likelihood of sustainable hybrid delivery modes.

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Conflict of Interest

This project is partially sponsored by The Immigrant Education Society (TIES) and Dr. Odessa Gonzalez Benson is a paid consultant for TIES, unrelated to this project.

The Authors

Marianne Barker is a policy analyst at the government of Alberta and a qualitative researcher who has worked on projects related to immigration and settlement, and youth mental health and wellness. Her research interests include social integration of immigrants, culture, identity, and language teaching and learning.

Paula Jireh Sampang is a 1.5 generation Filipina-Canadian. She earned an MA in intercultural studies, which has led her to be a youth worker in a local high school where half of the students are learning English as an additional language. Her current research interests are decolonizing Western Christianity and hybrid identities of immigrant youth.

Geneca Henry is a research coordinator and qualitative research lead at the Mathison Centre for Mental Health Research & Education and the Department of Psychiatry at the University of Calgary. Her research interests are interdisciplinary in nature, drawing from the social sciences and humanities to explore issues related to mental health, community well-being, and systems change.

Fatemeh Kazemi is a senior researcher at the Centre for Immigrant Research at The Immigrant Education Society (TIES). Her research interests include community-based research, newcomer integration, and the application of innovative methodological approaches to advance social justice and inform service delivery for immigrant and refugee populations in Canada.

Katerina Palova is the Director of Research & Immigrant Wellbeing at The Immigrant Education Society (TIES) and an adjunct professor at The University of British Columbia. Her expertise is in managing large-scale projects for immigrant settlement and cultural transitioning. Her work spans migration, climate-change adaptation, newcomer well-being, professional immigrants and their settlement journeys, workplace culture, change management, and EDI in the workplace.

Odessa Gonzalez Benson is associate professor at the University of Michigan School of Social Work and Taubman College of Urban Planning and Architecture. Her areas of research are refugee resettlement, state-civil society relations, labor migration, critical policy studies and epistemic justice, and the production of knowledge in social welfare studies and forced migration studies.

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