Post-Pandemic Classroom Literacies

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The COVID-19 pandemic has significantly impacted the lives of children and youth, their families, communities, and teachers. As access to and participation in classroom learning experiences was affected by changing public health conditions, language and literacy education was correspondingly resituated across modes of text, interactivity, and enactment in social, familial, and educative contexts. It was also predominantly framed in terms of deprivation and deficit. Recognizing that the pandemic, the prolonged period of uncertainty it generated, and its ongoing viral, social, and political resurgences have brought multiple forms of loss, gain, disruption and nurturance to the fore, the aim of this special issue is to give attention to the hopeful language and literacy teaching and learning that occurred in its midst, and the possibilities they might offer a post-pandemic future.

When we invited researchers to conceptualize and contribute studies for this special issue we perhaps naively imagined "post-pandemic" as a moment in which we might be on the other side of a temporary, bounded experience. Today the post- of post-pandemic seems to suggest a different temporal relationship. Today's post- still hopes for relief from the rawness of the pandemic but more explicitly recognizes that individuals and communities will carry what pandemic experiences took, offered, questioned, and caused to waver into a future of which it is now a part. The idea of "post-pandemic" education is one that reminds us that in many ways educators and researchers can neither look back nor forward without the pandemic figuring in our gaze.

The authors assembled through this special issue have investigated capacious learning experiences in which students and teachers participated in literacies and forms of expression beyond the "norm" of pre-pandemic schooling. Their studies move in and through pandemic experiences, exploring pedagogical stances and spaces as instances of living beyond what "should" have/could have been. They newly attune us to enduring matters in the pasts/presents/futures of language and literacy education.

Attuning to Pedagogical Stance

Pandemic experiences have caused many of us to rethink how we are placed in relation to one another: physically, interpretively, and dialogically. Aukerman and Aiello's

Beyond "Learning Loss" and Li and Sun's *"COVID Has Brought Us Closer"* provoke similar rethinking within instructional relationships and practices. Aukerman and Aiello offer ways to reconsider the "learning loss" narrative through which students and their post-pandemic literacy education are too-easily framed. They call for forms of pedagogical attention, interpretation, and shaping that recenter noticings of children's emotions, funds of knowledge, relations, and purposes: possibilities grounded in the immediacy of pandemic disruptions but with poignancy "one year or one hundred years 'post-pandemic'" (this issue, p. 24). Li and Sun's proleptic account of English-as-a-second language teachers shows how the ESL instruction broadened during the pandemic to include socio-emotional learning, caused ESL teachers to rethink relationships with technology, and helped forge new communication networks and collaborations. Having had these experiences, developed new skills, and felt the "magic" (this issue, p. 46) of professional collaboration, how they, students, families, and colleagues might work together has been collectively set anew.

Attuning to Pedagogical Space

Beyond the abrupt and forced shift to online learning necessitated by school closures, the pandemic provided opportunities for educators to think differently about their learning spaces. In their contributions to this special issue, Cormier & Burke-Saulnier (*Chapeau a Vous*), Burke (*Understanding Children's Drawings*), and McKee, Murray-Orr, & Robinson (*Learning to Teach Outside the Box*) introduce us to educators grappling with the tensions associated with requiring young children to spend long days attending to a tiny screen. There was also the concern of ensuring access to rich reading materials normally available in class that Blain *(Recherche-développement dans le contexte pandémique)* addresses by transforming print books into multimodal texts available online. These educators expanded the space of online learning, transforming traditional print literature, moving children away from desks to explore spaces in their homes and out-of-doors as part of the new learning assemblage. Students began to see their teachers' living spaces and make new associations about the lives of their teachers beyond the classroom. Likewise, as family members moved in and out of view on the computer screen, teachers began to see their students and their families in new ways - as learners with rich linguistic and cultural repertoires, as parent-employee-teachers with both capacities to teach and unprecedented time constraints. Not being face-to-face in the classroom opened dimensions of educator and learner humanity that may have otherwise felt beyond reach or inaccessible. Through bringing homes, family members, pets, furniture, grass, trees, and open skies into the learning assemblage, opportunities for attuning to the fullness of student and educator life were opened up in together-apart learning spaces. Even as they reflect on what these moments have to say for how we might move forward in face-to-face classroom intra-action, Cormier and Burke-Saulnier's, Blain's, Burke's, and McKee, Murray-Orr, and Robinson's work collectively acknowledges that the physical separations of the pandemic – children from friends, educators from students – also remind us of all that is

precious, important, necessary, and worth advocating for in together-together learning spaces.

We are fortunate to have the thoughtful contributions of these authors in this special issue and are reminded of the multi-dimensioned, insightful, and critical work in literacy pedagogy and research that took place during a time when educators were called upon to pivot on a moment's notice and in the time since, when so much has been asked of them. They have enriched how we might recognize the pandemic/post-pandemic as a portal into new practices in language and literacy education. We also appreciate the team of reviewers who contributed to this issue and the researchers whose work was interrupted, delayed, and put on hold as the pandemic relentlessly marched on.

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Littératies scolaires en post-pandémie

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La pandémie de la COVID-19 a perturbé la vie des enfants, des adolescents, leurs familles, leurs communautés et les enseignants. À mesure que l'accès et la participation aux expériences éducatives en salle de classe furent influencés par la santé publique générale, l'enseignement des langues et des littératies ont dû se resituer face aux changements à travers les modes de textes, l'interactivité et l'exécution en contextes sociaux, familiaux et scolaires. Cette période prolongée d'incertitude généralisée ainsi que les résurgences au niveau viral, social et politique ont favorisé une vision déficitaire de l'époque. Tout en reconnaissant que cette période de la pandémie a contribué à de formes multiples de pertes, de gains et d'interruptions, le but de ce numéro spécial est de donner une attention particulière aux moments d'espoir en enseignement de la langue et de la littératie, de reconnaître l'apprentissage qui a eu lieu et de se pencher vers les possibilités pédagogiques en envisageant un avenir post pandémie.

En invitant les chercheurs à conceptualiser et à contribuer des études à ce numéro spécial, nous avions potentiellement imaginé, de manière naïve, la période « post-pandémie » comme étant un moment particulier dans le temps où nous serions sortis ou du moins en train de sortir de l'époque de la pandémie. Maintenant, le mot « post » semble suggérer une nouvelle époque ou du moins une différente relation dans le temps. La période « post » d'aujourd'hui espère toujours un répit de l'intensité de la pandémie. Tout ce que la pandémie a soustrait et simultanément présenté aux individus et aux communautés, ainsi que les moments où nous nous sommes remis en question, forment le bagage que nous portons avec nous dans un avenir dans lequel la pandémie figure encore. En éducation, l'idée de la « post-pandémie » est un rappel des plusieurs façons dont les enseignants et les chercheurs ne peuvent pas simplement jeter un regard vers le passé ni vers l'avenir sans que la pandémie y figure.

Les auteurs de ce numéro spécial ont étudié des moments d'apprentissage dans lesquels les élèves et les enseignants ont exploité la littératie à l'extérieur de la « norme » de l'enseignement de la langue et de la littératie pré pandémie. Les études naviguent les expériences vécues lors de la pandémie tout en explorant des postures et espaces pédagogiques au-delà de ce qui aurait dû ou aurait pu se produire. Les auteurs nous

présentent des thèmes de valeur persistante en ce qui concerne le passé, le présent et l'avenir de l'éducation en langues et littératies.

L'harmonisation de la posture pédagogique

Les expériences vécues lors de la pandémie ont poussé plusieurs d'entre nous à repenser à comment nous nous positionnons face aux autres : physiquement, symboliquement, et dialogiquement. Le texte d'Aukerman et d'Aiello "*Beyond Learning Loss"* et celui de Li et Sun *"COVID Has Brought Us Closer"* évoquent tous les deux cette idée de repenser les relations et les pratiques d'enseignement. Aukerman et Aiello proposent différentes façons de recadrer notre perspective sur les retards académiques des élèves en matière de littératie. Ils demandent qu'une attention, interprétation et reconceptualisation de la pédagogie aient lieu et que ceci soit centralisé sur les émotions des élèves, leurs connaissances, leurs relations et leurs objectifs. Ces auteurs explorent les possibilités pédagogiques évoquées par les retombées immédiates de la pandémie tout en se demandant si la période post-pandémie sera d'un an ou de cent ans.

À leur tour, Li et Sun, dans leur récit sur les enseignants d'anglais langue seconde, démontrent comment les sphères de l'enseignement se sont élargis pour inclure l'apprentissage socioémotif, des nouvelles relations avec la technologie et de nouvelles méthodes de communication qui encouragent le réseautage et la collaboration. Grâce à ces expériences et le développement de nouvelles compétences, les enseignants ont ressenti la magie de la collaboration professionnelle et voyaient de nouvelles possibilités pour la collaboration entre les étudiants, les familles, les collègues et les enseignants.

L'harmonisation des espaces pédagogiques

Au-delà de la transition brusque et obligatoire à l'enseignement en ligne en raison des fermetures des écoles, la pandémie a également présenté la possibilité aux enseignants de repenser leurs espaces d'apprentissage. Dans leurs contributions de ce numéro, Cormier et Burke-Saulnier (Chapeau à Vous), Burke (*Understanding Children's Drawings*), et McKee, Murray-Orr et Robinson (*Learning to Teach Outside the Box)* nous présentent des éducateurs qui devaient transiger avec les tensions associées à des jeunes enfants qui passent de longues journées devant un petit écran. Il y avait également le souci d'assurer un accès équitable aux riches ressources pédagogiques en lecture normalement disponibles en salle de classe que Blain (*Recherche-développement dans le contexte pandémique)* a adressé en transformant des livres en textes multimodaux disponibles en ligne. Les enseignants n'avaient le choix que d'élargir l'espace de l'enseignement en ligne, en transformant des textes traditionnels à des textes numériques, en éloignant les enfants des bureaux et en les encourageant d'explorer les espaces dans leurs maisons et en plein air. Les élèves ont commencé à voir les espaces personnels de leurs enseignants et ont commencé à faire de nouveaux liens entre leur vie et celle de leurs enseignants au-delà de la salle de classe. De la même manière, lorsque les membres de la famille rentraient et sortaient de l'écran, les enseignants commençaient à voir leurs élèves et leur famille d'une nouvelle façon – comme étant des apprenants avec des répertoires linguistiques et culturels riches. Étant parent-employé-enseignant, certains enseignants devaient exercer tous ces

rôles avec de nouvelles contraintes de temps. Le fait de ne pas se voir en présentiel a ouvert la porte à une nouvelle dimension de l'humanité des enseignants et des élèves qui, autrement, aurait peut-être été inaccessible ou infranchissable. En intégrant les foyers, les membres de la famille, les animaux domestiques, les meubles, le gazon, les arbres et le ciel ouvert aux apprentissages, nous avons pu reconnaître toutes les facettes de la vie des élèves et des enseignants tout en créant des espaces ensemble mais à part où nous apprenions ensemble. Même lorsque les auteurs réfléchissent sur l'impact de ces moments et proposent des changements possibles au retour en salle de classe en présentiel, Cormier et Burke-Saulnier, Blain, Burke et McKee, Murray-Orr et Robinson reconnaissent tous que les séparations physiques de la pandémie, les enfants séparés de leurs amis et les élèves séparés de leurs enseignants, nous rappellent l'importance de revendiquer des espaces physiques dédiés à l'enseignement parce qu'ils sont précieux, importants et nécessaires.

Nous sommes privilégiés de pouvoir compter les contributions de ces auteurs parmi les textes de ce numéro spécial qui nous rappellent de tout le travail multidimensionnel, critique et perspicace qui a eu lieu dans le domaine de la recherche et de la pédagogie en langues et en littératies lors d'une période de temps où nous avons demandé aux enseignants de se réorienter sans préavis et où on a continué à leur en mettre de plus en plus sur les épaules. Ces textes enrichissent notre vision même de la pandémie ou de la post-pandémie en ouvrant la porte à de nouvelles pratiques en enseignement en langues et en littératies. Nous voulons également reconnaître l'équipe d'évaluateurs qui a contribué à la qualité de ce numéro ainsi que tous les chercheurs qui ont dû subir des interruptions, des délais et des pauses pendant que la pandémie avançait à pas déterminés.

Biographie des auteures

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Beyond "Learning Loss:" Literacy Teacher Noticing in a Post-Pandemic World

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Abstract

A resounding emphasis on *learning loss* has pervaded popular discourse and academic research as children return to in-person instruction after COVID-related schooling interruptions, most notably including remote schooling. This paper examines how this emphasis links to persistent deficit-oriented views of children as lacking literacy and language. It proposes an expanded, anti-deficit conception of *teacher noticing* based upon four domains that deserve more visibility especially at this time in the literacy classroom: children's emotions, children's funds of knowledge, children's relationships, and children's purposes. It provides examples of how teachers might adopt deliberate noticing practices that attend to these domains.

"It's 'Alarming': Children Are Severely Behind in Reading." (Goldstein, 2022)

This *New York Times* headline from March 2022 aligns with many pandemic learning loss narratives in the press (e.g., Guidry et al., 2021; Reed, 2021). The throughline is that pandemic-era children who have experienced disruption in their schooling are behind academically and at risk of permanent failure. The learning loss narrative looms equally large in recent educational research literature, with 398 hits for "learning loss" in peer reviewed academic journals in the two-year period between May 2020 and April 2022, nearly double the number of pre-pandemic "learning loss" hits (216) for the equivalent two-year period between 2017 and 2019 (source: EBSCO host, Education Research Complete). Some emerging research reinforces this narrative. For example, within the domain of literacy, studies have noted both declines on global reading measures (Lewis et al., 2021; Pier, 2021) and drops in specific skills like reading fluency (Domingue et al., 2021).

However, such learning loss narratives over-simplify the story of children's experiences and learning during the pandemic. For example, some research has found little evidence of learning loss in reading (Gore et al., 2021), while other research suggests that reading outcomes for different populations are affected in varied ways (Lewis & Kuhfeld, 2021; Pier, 2021). Researchers such as Ho (2021) have suggested that the term "learning lag" may be more appropriate; with support, students often make strong gains when they again have opportunities to learn what they may have missed.

A deeper problem is that fetishizing "learning loss" primes educators to notice student deficiencies (Whitley et al., 2021; Zhao, 2021) rather than the understandings and capacities they bring to their learning – what Moll et al. (1992) called "funds of knowledge." As such, it represents the newest instantiation of deficit thinking, which frames students – particularly those from under-resourced communities of color – as not being enough, knowing enough, or doing enough to measure up (Dudley-Marling & Lucas, 2009; Dyson, 2015; Ellison & Solomon, 2019; Shapiro, 2014). As the educator Paul Emerich France (2021) tweeted:

> It's incredibly challenging to counter the learning loss narrative as an ed leader. I want to respect people's worries, but also am fiercely defending equity and asset-based thinking in schools.... I guess I just keep coming back to: what's the rush? And why does it matter that they're in a different place according to academic measures that we know are harmful?

As literacy researchers, we accept that the pandemic has had profound effects that matter for children's literacy learning, but argue for a richer view by inviting teachers to engage in deliberate *noticing* of children, guided by four domains that matter for their students as literacy learners, particularly in this pandemic/post-pandemic era. These domains include children's emotions, children's funds of knowledge, children's relationships, and children's purposes. These domains are particularly salient given children's pandemic experiences, but as this paper ultimately argues, we believe they provide a much-needed blueprint for educators to challenge broader deficit narratives about children. Before elaborating on these domains, we describe what we mean by teacher *noticing* and elaborate on how learning loss narratives obscure teachers' view of their students, of classroom interactions, and of possibilities for humanizing literacy pedagogy.

Beyond Deficit-Driven Teacher Noticing

What Is Noticing?

Noticing frameworks were first developed as a way of understanding how teachers make sense of students' thinking, particularly in mathematics (van Es & Sherin, 2002). The idea has only recently been applied to literacy and language arts classrooms (Patterson Williams et al., 2020; Simpson, 2019), but we see connections to Goodman's (1985) concept of *kidwatching* to support children's language development via informal, naturalistic observation.

Noticing matters because in-the-moment instruction offers teachers a dizzying array of information to process; it is perhaps unsurprising that teachers attend to certain aspects of what students say and do over others (Sherin et al., 2011; Sherin & van Es, 2009). Moreover, noticing can be shaped by personal and professional factors, leading to significant variation between how two teachers (or even a single teacher at different points in time) make instructional decisions in response to what they perceive.

Van Es and Sherin (2002) initially proposed two key dimensions of teacher noticing. The first, *attending,* involves focusing on certain aspects of classroom interactions and letting others go. For example, a teacher observing a text discussion might

purposefully attend to the way children support their assertions with evidence. In this case, certain moments would have more salience for that teacher, like when students use personal examples rather than textual evidence to defend their thinking. Other potential noticings may get filtered out, such as the way one student participates more than others during discussion or how another student never speaks.

The second dimension of noticing, *interpreting*, involves reasoning about classroom interaction (van Es & Sherin, 2002). By analyzing and ascribing meaning to what is observed, interpreting goes beyond simply describing. For example, the teacher in the above example may notice a child, Ana, defending her point by citing a time she went grocery shopping with her abuelita. The teacher might interpret this to mean that Ana is not sure how to use textual evidence, or they may instead wonder if Ana's relationship with her abuelita is a useful resource for Ana in making sense of this text.

While attending and interpreting are widely recognized dimensions of noticing, some scholars, notably Jacobs and their colleagues (2011), have also included *responding* as a component of teacher noticing. Responding involves making, and acting on, a decision based on what has been attended to and interpreted. For example, Ana's teacher might feel the need to model and explicitly teach Ana's group how to draw on textual evidence, then move on with the discussion.

In more recent work, van Es and Sherin (2021) have likewise added a third component to their noticing framework but, rather than including *responding*, they rely on the construct of *shaping*. Shaping "involves the creation of interactions for the purpose of gaining access to additional information... which can then become the object of further attending and interpreting" (van Es & Sherin, 2021, p. 24). In our example, the teacher may seek more information about Ana's understanding of textual evidence, and ask "Ana, can you find a moment from the text that supports your argument?" Alternatively, the teacher may be curious about why Ana is connecting the text to a memory of her grandmother, and ask, "Ana, can you say more about that time you went grocery shopping?" In both instances, Ana's reply will likely offer more for the teacher to attend to and interpret.

While *responding* and *shaping* are closely linked and may co-occur, van Es and Sherin (2021) distinguish between them. A teacher's *responding* comes after attending to and interpreting previous interaction; responding is the follow-up course of action based on what is *already* understood about a student. *Shaping* is a more emergent course of action in which a teacher centrally seeks to deepen their understanding of the child as they engage in ongoing interaction with that student; it lays the groundwork for subsequent attending and interpreting even as it builds on the attending and interpreting that has gone on thus far. Shaping is done from a deliberate stance of curiosity: the teacher seeks to learn *as well as* to teach. In our foregrounding of *shaping*, we also align ourselves with the ethical and epistemic commitments in Davies's concept of *emergent listening* (Davies, 2014), where she reflects upon listening as "the continual openness to the not-yet-known":

> What we usually think of as listening, particularly as adults listening to children, is most closely aligned with...fit[ting] what we hear into what we already know...Emergent listening might begin with what is known, but it is open to creatively evolving into something new. Emergent listening opens up the

> possibility of new ways of knowing and new ways of being, both for those who listen and those who are listened to. (p. 21-22)

Shaping is thus part and parcel of noticing, interwoven with attending and interpreting. Taken together, they offer an important way of understanding the deliberate thinking that goes into moment-by-moment teaching. We see this tripartite framework as fruitful for devising ways of pushing past the settled, fixed narrative of *responding* to learning loss that appears in so many education-related pandemic narratives. For this reason, and in the interest of space, we will highlight attending, interpreting, and shaping in our framework, though we acknowledge that teachers will also at times primarily be responding to what they have noticed.

Contingency

Instead of settled, fixed narratives, deeply informed noticing demands teaching built upon contingency (Boyd & Rubin, 2006). That is, teacher decision-making is not predetermined by set learning objectives, curriculum, or even pedagogy, but rather emerges from what is observed through a stance of inquiry and curiosity about children's thinking. Of course, this work of noticing is complex, in part because teachers experience profound tensions in both their noticings and in their subsequent decision-making (Johnson, 2017). A teacher can be pulled in different directions as they navigate different noticings about the same child or group of children.

Precisely because it is so complex, noticing is not, or should not be, something that "just happens." Rather, noticing should be disciplined (Mason, 2002), shaped by intentionality and curiosity that enables deliberateness. Even as the pandemic casts doubt on what students are capable of, high-level noticing empowers teachers to attend to situational aspects of teaching and has the potential to contribute to teachers' capacities for adaptive and responsive teaching (Parsons et al., 2018; Philip, 2019).

The Limitations of Deficit Noticing

Given our critical stance towards the learning loss narrative, we are also drawn to scholars who place noticing in a sociopolitical context. Louie et al. (2021) identify the dangers of what they describe as "deficit noticing,"

> wherein teachers attend almost obsessively to the errors and shortcomings of students of color; interpret errors and shortcomings as evidence of deficiencies in students, their families, or their cultures; erase students' assets; and disregard schooling practices and social structures that limit students' opportunities to learn and thrive. (p. 95)

Deficit noticing emerges from an understanding of literacy as fixed and measurable, and of students as receivers of this knowledge. Learning loss narratives, including both pandemic narratives and narratives of summer break learning loss that have been around for more than a century (Thiel, 2019), are excellent examples. Such narratives provide an interpretive angle framing how teachers attend to, interpret, and respond to their students work with texts, e.g., "I see my kids are having trouble using textual evidence; my kids last

year could mostly do this; I interpret this as learning loss." Other potential noticings may be crowded from view.

Moreover, learning loss narratives tend to be static, broad, and largely acontextual. Although they might feel applicable to some students more than to others (i.e., some students have "lost" more), they do little to invite teachers into seeing particularity in students that would enable contingent in-the-moment decision-making. Reframing post-pandemic noticing returns the focus to concrete, real interactions with children, and to the highly contingent nature of what different children bring to their literacy learning.

Foregrounding daily interactions with children also helps push past the ways *asset-based* lenses are often positioned in binary relationship to *deficit* ones. Recognizing that all children bring resources that can be assets into their learning is important, but children's ways of being should not be separated into discrete "deficits" on the one hand and "assets" on the other. Our noticing commitments need to go beyond focusing only on things in the "right" pile. We are drawn toward Louie et al. (2021)'s term *anti-deficit noticing*, which "goes beyond a blanket commitment to seeing the assets that all students bring to learning" (p 100). Actively challenging deficit discourses means attending to the full complexity of instructional interactions in ways that defy the easy tendency to evaluate.

Re-Centering Noticing

We extend an invitation to teachers to re-center their noticing practices for a further reason as well. Russ (2018) has noted that most research literature on teacher noticing characterizes noticing solely from the teacher's perspective, rather than considering how students sense patterns in teachers' attention. Students often notice what their teachers notice, and subsequently build an understanding of what matters that connects to what they see. For example, teachers who value getting to correct answers in text discussions convey that understanding to students, while teachers who value student interpretations create classroom contexts where students are more likely to take on those learning epistemologies (Aukerman & Chambers Schuldt, 2015; Johnston et al., 2001). In short, what teachers notice suggests to their students what counts as literacy.

If teachers convey that students need to "catch up" as literacy learners, this is arguably what they will learn (Louie et al., 2021), and it may have powerful instructional consequences. In pre-pandemic research, Adair et al. (2017) found that early childhood teachers and administrators who worked with emergent bilingual populations often focused on the "word gap" argument (Hart & Risley, 1995) that their students were behind in vocabulary. Moreover, it was this framing that educators typically drew upon to explain why they did not feel their students were ready for agentive learning opportunities such as self-selecting learning activities, things that arguably should have had little to do with vocabulary at all.

If deficit noticing predominates in post-pandemic classrooms, students may similarly lose out on opportunities, whether because their teachers double down on teaching what students are missing, or because students are assumed to be un-ready for other kinds of classroom experiences. Furthermore, when students are primed to compare their literacy performance with others and/or an expected standard, they may become more likely to see themselves as poor readers (Aukerman & Chambers Schuldt, 2015), which in

turn may affect their subsequent ways of engaging with classroom activities (Hall, 2012). It is arguably vital, then, that noticing take a broader, more constructive view.

The Disciplinary Roots of the Teacher Noticing Tradition

Although we draw upon scholarship around teacher noticing, our approach takes a somewhat different tack from much of that scholarship, which typically highlights student disciplinary or content-area thinking (Chan et al., 2021). Within disciplinary noticing frameworks, for example, teachers might notice how a child interprets a word problem (math), the process of photosynthesis (science), or a short story (language arts). Such insights, centered in the cognitive domain, are useful: they have enabled educators to pay attention to more than just whether an idea is "right," highlighting thinking processes. While we believe in the power of such noticing, there is already important existing scholarship that can guide teacher conversations about such noticing, and we see fewer places where the pandemic is substantially reshaping those conversations (see Ferdinandsen et al., 2022, for a notable exception).

Instead, we highlight four dimensions of teacher noticing that have received less attention within and outside literacy education. These dimensions certainly merited attention in pre-pandemic times, but are newly salient in a world shaped by COVID. Most extend beyond the realm of the cognitive: children's emotional worlds; children's funds of knowledge; children's relationships with those around them; and the purposes children bring to and take from engagement with literacy in school. We do not see any hierarchy in these proposed dimensions, nor do we intend that teachers follow them in some sequence, nor do we believe they should displace noticing focused on disciplinary thinking. Rather, our goal is to invite literacy teachers into deeper and more well-rounded noticing.

Four Dimensions to Enrich Teacher Noticing

Noticing Children's Emotion

The mental health effects of the pandemic have been considerable. As of February, 2022, over 5 million children worldwide had lost a parent to COVID-19 (Unwin et al., 2022). More than 1 in every 200 children in New York City lost a caregiver, with children of color particularly likely to have experienced such a loss (Treglia et al., 2021). And, of course, many children lost other people who were close to them.

But understanding the trauma caused by the pandemic goes well beyond those children who have been directly affected by death in their circle. Children who themselves have had COVID-19 face greater rates of depression and other psychological challenges (Ahmed et al., 2021; Cost et al., 2022; Racine et al., 2021). Isolation as a consequence of schools closing and of general quarantine also affected many children; one study found that around two thirds of children living under quarantine reported feelings of worry, helplessness, and fear (Saurabh & Ranjan, 2020), and another found that roughly the same percentage were experiencing substantial boredom, according to parents (Jones, 2020).

At the same time, some children, including many with social anxiety, saw improvement in their mental health when they no longer needed to attend in-person school (Bussières et al., 2021; Cost et al., 2022). Some students of color reported feeling more at ease during virtual school, contending less with bigotry and judgment for their in-class

behavior (Miller, 2021); as one Black student put it early in the pandemic, "You're out of your mind if you think I'm ever going back to school" (Anderson, 2020). Early in the pandemic, in fact, about half of children in one survey reported feeling *more* calm than they were in regular school (Gray, 2020), and a large majority of parents in another (88%) reported that their children – despite being out of in-person school – were happy for much of the day, with overarching negative emotions such as anger and loneliness affecting a substantially smaller proportion of children (20-26%) on a daily basis (Jones, 2020).

Returning to school, of course, does not simply drop students back into their pre-pandemic lives. Not only do children continue to process emotional experiences from their pandemic lives, additional emotions and emotional experiences may bubble to the surface. In some cases, those newer emotions may be excitement and relief (Burry et al., 2020). But the act of return may itself spur anxiety, in some cases because of fear of COVID-19 itself (Burry et al., 2020; Mekouar, 2021), in other cases because of newly registered grief over missed friendships, milestones, and academic content (Alphonso, 2022; Stauffer, 2020; Subramanian, 2020).

In short, children are navigating complex emotional landscapes as COVID-19 moves from pandemic to endemic. While teachers cannot and arguably should not know these landscapes in full, noticing children's varied emotional lives enables them to teach intentionally with these lives in mind. This intentionality lies at the heart of trauma-informed teaching, a cluster of approaches that emphasize building trust, safety, and attunement (Crosby, 2015; Minahan, 2019).

The emotional stakes are high in the work that literacy teachers do. Literacy itself can be deeply connected with emotion, and literacy practices can generate strongly affective responses related both to the textual content itself and to feelings about engaging in such practices (Dutro, 2017). For example, there is research indicating that, even during non-COVID times, children may have anxiety and hopelessness about reading, particularly if they find it difficult (Sainio et al., 2019); a return to reading in the classroom among peers might exacerbate such feelings.

Precisely because children have different experiences of pandemic loss, quarantine, and return, foregrounding emotion in teacher noticing enables responsiveness to different ways in which students are grounded in (and sometimes grounded by) emotion. Some children may thrive in the return to school, while others flounder. Some children may need opportunities to share about pandemic experiences, while for others such opportunities provoke stress, and still others are simply ready to move on. And a book that is cathartic for one student may be triggering for a classmate. Unless teachers feel authorized to notice for emotion, they are likely to miss these nuances.

Of course, noticing emotions requires some delicacy and observational skill; not every child wants to be an emotional open book, and it can be dangerous to make assumptions about children's emotional lives on the basis of limited information. The three dimensions of attending, interpreting, and shaping can help teachers integrate noticing for emotion in sensitive and observation-driven ways. Table 1 provides a sampling of teacher actions connected with each dimension in the service of noticing child emotion. Important here is that these acts of noticing do not treat emotion as a barrier to learning, but as integral to it.

Table 1

Noticing Actions for Children's Emotions

Noticing Dimension	**Sample Actions**
Attending	*Treat what children say and do as a window into how they are feeling, not just into what they know. *Notice children's embodiments of emotion: how they carry themselves, facial expressions, tone of voice, etc. *Observe patterns and changes in how emotions and context (activity, other students, etc.) are intertwined. *Look for signs of children's emotions around masking, social distancing, and other safety measures.
Interpreting	*Consider hypotheses about children's emotions, including how history and context may play a role. *Use caution in labeling children's emotions; questions may be more helpful; avoid evaluative terms (e.g., "defiant"). *Attend to the possibility that emotions are not always transparent (e.g., a sad child may *appear* happy). *Be aware of how culture, peer relationships, and other experiences shape expression of emotion. *Consider how your emotions affect what emotions you are able to see.
Shaping	*Make the classroom a safe place for expressing emotion by eliciting and accepting emotional responses. When children bring up emotion, consider follow-up questions. *Use texts, prompts, and discussions that invite conversation about emotion. Select literature and activities with sensitivity to what might be triggering, but also with opportunities to work through hard stuff. *Where you anticipate or observe that a topic is highly emotional, consider giving advance notice and/or alternate activities. *Encourage children to explore emotion in fictional and autobiographical writing. *Pose questions that attend to emotional well-being through informal dialogue and/or through surveys for caregivers and students. *Allow children to work through emotion in drama and pretend play. *Discuss rich vocabulary for emotions (e.g., "furious", "blissful", "apprehensive"); observe how children take these up. *Imagine and work to create contexts that can facilitate children's joy. *Solicit (and revisit) children's preferences for what COVID-19 protocols make them feel able to learn.

Noticing Children's Funds of Knowledge

Several decades ago, Moll et al. (1992) proposed the idea of funds of knowledge, referring to "historically accumulated and culturally developed bodies of knowledge" that children use to support their lives and well-being (p. 133). Children are active participants in lives and worlds outside of school, and this active participation enables an assembled repertoire of understandings, perspectives, and skills. Moll and his colleagues noted that, while children always have such a repertoire, schools rarely engage deeply with those funds of knowledge.

Consider, now, the pandemic – a historical moment when children have had long stretches of time outside of formal schooling in which to develop what they know and can do. In a survey of children aged 8-13 during April/May 2020, nearly three quarters of them reported that their parents were letting them do more on their own, and nearly two thirds reported figuring out more stuff on their own (Gray, 2020). Some examples include putting on musical and theatrical performances on their front porches; sewing masks; writing extended-family newspapers together; and starting gardens. Of course, not all funds of knowledge are idyllic ones that children freely choose. During the pandemic, children have been enlisted as primary caretakers of siblings while their parents worked; they navigated food scarcity, witnessed violence, and saw relatives lose jobs.

Children's circumstances differ wildly, but all children will have had experiences during the pandemic that shaped who they are and their funds of knowledge. Such experiences develop propositional knowledge (understanding how the world works, "how-to" knowledge (skills and strategies to act on the world), perspectival knowledge (opinions and beliefs about the world), and identity (how one sees oneself in the world), among much else. Time out of school also developed specialized linguistic capacities in home dialects and languages; one study found that children showed greater home language development during COVID than in pre-pandemic times (Sheng et al., 2021). These kinds of repertoires are all part of children's funds of knowledge, shaped by culture and family life and a range of experiences.

We hold, then, that children come to school with enormous competencies, now and always. There is considerable irony that, precisely in times when children have developed such rich funds of knowledge, they may be slapped with a label that acknowledges only loss. Amidst the rhetoric about learning *loss*, their learning *gain* – children's newly developed and still-developing repertoires of understandings, skills, perspectives, identities, and languages – are at risk of remaining invisible.

Arguably, then, literacy teachers have an obligation to make children's funds of knowledge not only visible, but pivotal in children's classroom experiences. Here again, children may have different levels of comfort with bringing their out-of-school worlds into school, and it can be important to respect children's signals that they want privacy over some aspects of their lives. However, because every child has a broad repertoire of experience, it is often possible to find aspects of children's funds of knowledge that they are comfortable sharing.

Teachers can ask children to speak, write, and read in ways that tap into their repertoires of strength, including drawing on children's home languages. Equally important, teachers should attend to not just what children know, but how they act on their worlds, given what they know. Different children, for example, have different styles of

relating to text – some prefer to make connections, some to pose questions, and so on (Santori, 2008). Thinking about children's preferred forms of textual engagement as funds of knowledge allows teachers to honor forms of engagement that may not match a traditional "good student" stereotype. Table 2 provides a sampling of teacher actions connected with noticing children's funds of knowledge.

Table 2

Noticing Actions for Children's Funds of Knowledge

Noticing Dimension	**Sample Actions**
Attending	*Look for what children do beyond traditional academic skills. *Look for what children find important about what is talked about; watch for (dis)engagement. *Look for signals of identity and interests (e.g., soccer T-shirt, manga doodling). *Listen to what children say about their out-of-school lives. *Attend to cultural and linguistic differences. *Listen for translanguaging and situations where children rely on home languages and dialects (Martínez, 2010). *Look for aspects of out-of-school experience students bring into their classroom literacy (e.g., what they write about). *Listen to what parents tell you about children's out-of-school lives. *Remember that funds of knowledge involve more than just the "what," and extend into how children engage with the world – seek to notice both.
Interpreting	*Especially for young children and emergent bilingual students, be aware that they may have funds of knowledge that they are not yet able to verbally express in English. *When children flourish in activities, consider how their funds of knowledge play a role. When they flounder, consider how the activity, reconceived, could better draw on funds of knowledge. *When children engage with texts and tasks in unexpected ways, consider how their funds of knowledge might have enabled those ways of engaging. *Avoid assumptions about children's funds of knowledge based on characteristics like gender and race. *Reconsider what you value when students discuss and write about text; rather than privileging only *text-centric* commentary, allow students' *lived experiences* to enter textual conversations as food for thought and as evidence for claims. *Be aware that funds of knowledge, including identities, can change; remain tentative and open-minded.

Shaping	*Pose questions of children and parents that provide windows into children's lives and interests. *Ask follow-up questions to learn more when a child spontaneously references their funds of knowledge. *Create opportunities for children to draw upon and share their funds of knowledge in literacy activities. *Teach in ways that are culturally and linguistically responsive to what you observe. *Provide opportunities for students to use and encounter home languages and dialects. *Encourage ways of expressing knowledge that go beyond speaking/writing (invite drawings, gestures, etc.). *Invite children to explore texts that relate to their funds of knowledge; attend to whether and how these function as "mirrors" (Bishop, 1990) of out-of-school lives. *Ask students to make text-to-self and text-to-world connections (Keene & Zimmermann, 2007). *Pose authentic questions without single "right" answers that seek to elicit children's own ideas about texts.

Noticing Children's Relationships

The pandemic increased social isolation for many children, and a predictable consequence was that many children strongly missed social contact (Egan et al., 2021; Larsen et al., 2021). Indeed, one study of elementary-aged children during pandemic-related school closure found that the majority looked forward to returning to school "first and foremost to see their friends" (Larivière-Bastien et al., 2022, p. 8; see also Gray, 2020), and a third also reported missing contact with teachers. These children often also reported that online schooling was a pale substitute for interactions they found meaningful during in-person school, pointing out that there was less space for spontaneous interaction and for physical closeness. One twelve-year-old girl described her online school experience this way: "we laugh less, now that we are not in person" (Larivière-Bastien et al., 2022, p. 8). In short, the loss as keenly experienced by many children was not an academic loss, but a social one.

Of course, not seeing friends and teachers at school is only one dimension of pandemic-related social challenges children have faced. Playgrounds and other public venues for children's socializing were often shut down. Restrictions on private gatherings prohibited children from socializing with people outside their family (e.g., Torrens et al., 2020). Some children have been frank about the cumulative effects of the pandemic on their peer relationships. As one teen put it, "the pandemic completely destroyed my social life" (The Learning Network, 2020).

Children and their families often looked for ways to combat the social isolation of the pandemic, both during school closures and as schools reopened. Some attempted solutions took place digitally. Virtual play dates sprang up (Runn, 2021). Older children reported maintaining friends online and actually finding new friends via online

communities, in some cases even feeling more connected to peers than they were pre-pandemic (The Learning Network, 2020).

Some families continued to have indoor playdates because there were no formal restrictions where they lived, or did so despite pandemic restrictions. Other children were able to see one another so long as it was outdoors. And then, as pandemic restrictions eased, some groups of parents formed "friendship bubbles," allowing their children to socialize with a stable set of others within the same bubble (Touma, 2021). Whatever the measures taken to maintain peer relationships, whether virtual or in person, the evidence suggests that those children who were able to maintain contact with friends during the pandemic fared better overall in terms of their sense of well-being than children who could not (Mitra et al., 2021).

Navigating social relationships upon return to school, while eagerly anticipated by many, has also not been easy. Coupled with all the usual social complexity of classroom spaces, there are new layers: children who have been around peers less need to figure out how to be with one another again, how to navigate conflicts and social possibilities. At the same time, they are figuring out how to adjust to social norms and changing health mandates. Here are just two examples:

> Parents are urging children to continue to take health measures, such as wearing masks, but the children feel that this makes them not fit in with non-mask-wearing peers.
>
> Children fear asking their teachers a question about an assignment because they or family members are immunocompromised and they do not want their unmasked teachers to get too close.

In both these examples, familiar concerns about belonging, trusting, and seeking help are complicated by issues stemming from the pandemic. Of course, not all social complexities will be tied to pandemic-related concerns. Regardless, rather than allowing deficit noticing concerns to predominate – that students *aren't* interacting in ways teachers expect, or *aren't* turning to teachers for help when they need – we encourage teachers to notice and inquire into what seems to matter for children in their relationships.

Attending to and interpreting children's relationships may also add a new layer to how students are understood as readers. For example, in texts such as *Last Stop on Market Street* (Peña, 2017), *The One and Only Ivan* (Applegate, 2012), and *The Giver* (Lowry, 1993), characters interact with one another in ways that can surface rich themes of safety, privacy, protection, and responsibility. Offering children opportunities to make sense of such themes in light of their pandemic experiences may offer new insights into children's own social worlds.

How literacy instruction occurs can also orient to students' relational priorities. Offering children opportunities to talk with one another about texts can reveal patterns in whose ideas get taken up by peers, whose ideas hold most sway, and whose voices remain quiet. Discussion-based teaching can be a rich forum for noticing student relationships, especially if teachers consider how students in these settings are reading the social context as much as the text at hand. Lessons learned from remote teaching can also foster rich

noticing as teachers attend to the nature of students' participation with digital media that fosters interaction – such as chat boards and online discussion groups – translated into use in in-person classrooms.

Just as in pre-pandemic times, invitations to participate in learning with highly interactive social interactions should be seen as just that, as *invitations,* and children should be given space to accept or reject these invitations on their terms. Even if certain students shy away from small group text discussions or remain quieter when class-wide discussion is underway, these may be fascinating points of inquiry into what matters as these students build relationships with peers, teachers, and texts in their own ways. Table 3 provides a sampling of teacher actions connected with noticing children's relationships.

Table 3

Noticing Actions for Children's Relationships

Noticing Dimension	**Sample Actions**
Attending	*Treat children's relationships to one another as a window into their social interests and capacities. Pay close attention to the relationships children are seeking to build. *Attend to a variety of spaces where children's relationships play out (e.g., before and after class). If applicable, observe how relationships play out in online interactions. *Look out for students who seem to have fewer strong relationships with others. Do they appear to want such relationships? What might hold them back? *Consider how characteristics such as race, gender, and LGBTQIA identity might factor into children's relationships.
Interpreting	*Use caution in labeling children's social skills and relationships; questions may be more helpful. *Reconsider treating peer interaction as "off task" behavior. *As students make sense of relationships among characters portrayed in classroom texts, consider how these interpretations could reflect students' own efforts to navigate relationships. *Consider how one's own experiences with relationships may be affecting how one interprets children's relationships. *Look for ways that belonging, trust, loss, and safety might play out in new ways for relationships in a post-pandemic world.
Shaping	*Create literacy activities centered on peer talk. *Pose questions and follow-up questions that elicit children's thoughts on their relationships. *Where it feels supportive to do so, ask students to connect ideas with what another student has said. *Use texts, prompts, discussions, and even whole units that invite conversations about relationships.

	*Include texts that reveal rich, positive, and multidimensional aspects of different cultures, life experiences, and identities. *Consider adapting remote teaching's participatory digital pedagogies (e.g., group chats) to make in-person literacy learning more social. *Allow children to reflect on how ways of engaging with others in the classroom may have been altered by the pandemic. *Develop practices supporting belonging and relationship development rather than competition. Encourage student invention of joint rituals (Boyd, 2016; Boyd et al., 2018). *Create supported opportunities for students whose social networks are less strong to connect with others.

Noticing Children's Purposes

In 2020, the National Literacy Trust in England conducted a study about children's reading habits (Clark & Picton, 2020). Among other things, it compared survey results from children aged 9-18 just before the pandemic and just after it started, during lockdown. One finding was that a third of children reported reading more for pleasure after schools shut down. These results were not unique to England; similar results were found in a Singaporean study (Sun et al., 2021). Among those who had already liked reading in the English study (Clark & Picton, 2020), 38.3% reported enjoying reading more during lockdown (compared with only 7.5% who liked it less), but among those who already didn't enjoy reading, only 13.9% did (compared with 20.4% who actually liked it even less than before).

Several aspects of these findings illuminate the importance of children's purposes. First, children who dislike reading will not necessarily suddenly gravitate toward it when given more time to do so. This finding suggests that schools can do more to nurture children's engagement in reading (and other aspects of literacy) so that, when unbound by the strictures of schooling (not just during pandemic closures, but otherwise in life), children may be more likely to recognize authentic purposes for engaging in literacy.

Second, there may be something within traditional schooling itself that works against children reading as *they* would wish. Some of this, of course, is due to time. Many students reported having more time to read during the pandemic than before (Clark & Picton, 2020). But another prominent theme identified by the study's authors was greater literacy autonomy during lockdown. As one study participant put it, "At home I can be myself and read, write and listen to what I want and need to" (Clark & Picton, 2020, p. 7). In other words, as often carried out, school can stymie children's literacy purposes.

While engaging in literacy for enjoyment is one important dimension of children's purposes, it is also important to recognize that children's literacy purposes during the pandemic (and otherwise) are much more multi-faceted than only enjoyment. For example, the first author's current research suggests that, during the pandemic, adolescents often read COVID-related media online in order to inform themselves; and they shared links for others to read in order to commiserate with others, to help others by informing them about the pandemic, and to prove a point in COVID-related disagreements (Burwell et al., 2022).

Even preschoolers show interest in being informed about COVID (Pascal & Bertram, 2021). Other authentic literacy purposes for children assuming special salience during the pandemic could be participating in group chats to stay in touch with friends and writing letters to loved ones they are separated from.

Yet taking children's purposes seriously as an educator ultimately also means refusing to build a teacherly fence around purposes ordinarily connected with traditional school literacy practices like reading and/or writing. After all, children may not, from their perspective, have "literacy purposes." They have purposes, period – things that they do because those things matter to them that may or may not involve anything "literacy." One of the tasks of a literacy teacher is to help children consider when and if literacy might enable them to meet purposes important to them – even when (and perhaps especially if) those purposes are not on the face of things "literacy" purposes. As Dyson (1993) put it, literacy curricula should be made permeable to children's intentions. Of course, honoring children's purposes may mean recognizing that not every child's purpose can or should be tied to a literacy task that will be meaningful to that child: a child may love Minecraft but find no authentic purpose in writing or reading about Minecraft.

Children's purposes can be related to emotion (e.g., finding something funny or moving), to funds of knowledge (e.g., pursuing an interest in knitting, archery, or dinosaurs), and to relationships (e.g., making other kids laugh or affiliating with a friend's point of view). As such, noticing children's purposes can mean highlighting any of the three dimensions already described above, and even bringing them together. But, of course, children's purposes extend beyond these things as well, including everything from wanting to learn something they are curious about to wanting to right an injustice. Teachers may encounter very limited opportunities to effectively notice children's purposes unless the children in their care have meaningful opportunities for agency, that is, for "being able to influence and make decisions about what and how something is learned in order to expand capabilities" (Adair et al., 2017). Highlighting choice and voice is at the heart of shaping in the service of noticing children's purposes.

It is also worth noting that taking children's purposes seriously as teachers also should mean seeing children's play as integral to their school experience. Rogers (2022) has argued that a defining aspect of children's purposes is agentive, child-driven play, and has documented that this urge to play remains in middle and latter childhood. During the pandemic, children have often had more time to play (Gray, 2020; Rogers, 2022), and play has helped them work through difficult ideas through activities such as what might seem like morbid self-developed "death games" exploring the demise of a parent (Pascal & Bertram, 2021). At the same time, children have also had some unusual constraints on their play (e.g., trying to play dolls via Zoom with a friend).

As children return to school, their learning opportunities should centrally include child-led social and pretend play, and literacy classrooms may be a particularly natural fit for such opportunities. Children deserve to make up for lost time playing with peers, and they will need opportunities to use play to work through what they have experienced and are continuing to experience related to the pandemic itself. Even where play is not fully child-led, teachers can attend to how children are responding to play-inspired learning opportunities by "weaving in elements of subject knowledge deemed desirable by society at appropriate moments... without disrupting the play to such an extent that it loses its

playful qualities" (Rogers, 2022, p. 497). To do any of this well, noticing what counts as play for children, as well as noticing other purposes salient to children, is vital. Table 4 provides a sampling of noticing actions for children's purposes.

Table 4

Noticing Actions for Children's Purposes

Noticing Dimension	**Sample Actions**
Attending	*Consider what kinds of texts, authors, and reading experiences draw particular children in. *Attend to what kinds of writing opportunities elicit more voluntary engagement (sometimes visible through writing more, or more vividly).
Attending	*Consider what kinds of play does a child engage in. *Listen for when a student may talk about their reasons for doing things, or for not doing things, at home and at school.
Interpreting	*Inquire into what social, intellectual, and emotional purposes appear salient to the child during literacy activities. *Be aware that children can hold multiple purposes simultaneously. *Consider that children's purposes can change, both in the moment and across longer stretches of time. *Reflect on what ideas, especially difficult ones, children seem to be working through in their play, reading, and writing. Look beyond the "what" to consider deeper themes. *Consider how one's own preferences might be shaping what purposes are privileged; shake that dynamic up. *When students resist activities, interpret that in light of possible purposes rather than as misbehavior.
Shaping	*Offer choice in text and activity and make literacy prompts open-ended; what do different children do? *Consider provocations that encourage social and pretend play. *Consider an emergent curriculum shaped by student interests. *Consider tying literacy activities to real-life purposes (e.g., writing real letters); see how students take these up. *Integrate opportunities for the students to engage in purposes that might be less typical for school (e.g., preparing a meal together). *When children introduce an unexpected purpose into a planned activity, consider rolling with it. *Ask students their opinions and ideas, and allow these to shape what happens next.

Toward Post-Pandemic Noticing that Honors Children

Above, we have outlined four dimensions of teacher noticing that we believe should have an integral place in the literacy classroom: noticing children's emotions, noticing their funds of knowledge, noticing their relationships, and noticing their purposes. Each dimension has special poignancy as children return to school after a wide range of experiences during the pandemic, but each is equally important for how it can enrich teaching in ways not directly tied to the pandemic. Whether one year or one hundred years "post-pandemic," children will bring emotions, funds of knowledge, relationships, and purposes into what they do at school, and teachers would do well to notice how different children are doing so in different ways.

In addition, of course, literacy teachers should engage with what might be seen as more traditional disciplinary noticing. They should be observing how students are engaging with literacy in ways that link to literacy goals like developing decoding proficiency, comprehending text, being able to use texts to accomplish things, and engaging in critical literacy, as well as writing and oral language development (Aukerman & Chambers Schuldt, 2021; Luke & Freebody, 1999).

To engage with where children have been during the height of the pandemic/quarantine and with what is important for them after their return to regular in-person settings, instruction should be meaningfully contingent on what is noticed in all of these domains, both in moment-to-moment interaction and as instruction unfolds across a school year. Rather than being slotted into a one-size-fits-all learning loss narrative, each child will have a different pandemic and post-pandemic story that teachers can learn from, engage with, and help further develop. Done well, each child and each class of children will look different from others, and literacy teaching should engage with those differences with developmentally appropriate and carefully tailored teaching, assuming a stance of curiosity and respect toward who children are and what they bring.

Such work may feel ambitious: there is nothing simple about noticing, and even less that is simple about noticing children with curiosity and respect amidst a continuous swirl of learning loss narratives. Yet, navigating that complexity, even in inevitably imperfect ways, is something teachers arguably owe to the emotional, competent, social, and purposeful children with whom they have the honor of engaging in the play and work of literacy together.

Author Note

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Liam Aiello is a postdoctoral scholar for the Teachers as Learners Project at the University of California, Davis, where he studies how teachers develop equitable approaches to classroom talk with diverse learners. Liam is a former fifth grade teacher, and more recently has taught education courses at Mills College and provided professional development through Stanford's Center to Support Excellence in Teaching. His scholarship investigates the tensions that teachers navigate when facilitating class discussion; the ways inclusive pedagogy is received by youth; and the affordances that teacher noticing frameworks hold for inquiry-based teacher education. His work has been published in the Harvard Educational Review and English Journal. He can be reached at ltaiello@ucdavis.edu.

"COVID has Brought Us Closer": A Proleptic Approach to Understanding ESL Teachers' Practices in Supporting ELLs In and After the Pandemic

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Abstract

This paper uses "prolepsis," a process of reaching into the past to inform present and future practices, to understand 12 English-as-a-second language (ESL) teachers' practices of supporting English language learners (ELLs) through remote teaching during the COVID-19 pandemic from 2020-2021 in British Columbia and to envision some different current and future post-pandemic classroom literacies for diverse learners. Accounts of these ESL teachers' synthetical moments of teaching and supporting ELLs during the pandemic suggest that they had to navigate "new" areas of teaching, including attending to students' social-emotional learning (SEL), connecting with ELL parents, teaching and engaging students via technology-supported instruction, and co-teaching with mainstream teachers, on the basis of limited or no pre-pandemic experience. These insights suggest a need to widen the focus on ESL teachers' knowledge and expertise in applied linguistics and instructional strategies to include classroom literacies in integrating SEL into ESL instruction, adopting interactive, student-driven instructional designs and practices afforded by multimodal technologies, maintaining multiple channels of communication with parents and students, and team-teaching with classroom teachers to provide tailored language support for ELLs.

Keywords: ESL teachers, social-emotional learning, parental involvement, technology-enhanced language teaching, team-teaching, pandemic, classroom literacies

Introduction

In the 2019-2020 school year, public schools in British Columbia accommodated 68,982 English language learners (ELLs)[1] or emergent bilinguals, accounting for 12.6% of total student enrolment (BC Gov News, n.d.). For school districts with higher immigrant student concentration, such as West Vancouver, 50% or more of its students are designated ELLs, which means that almost half of the students require varying degrees of English as a second language (ESL) support to be able to succeed in academic content learning in the regular classroom (Seyd, 2020). Moreover, the number of students with ESL designation

[1] In this article, the acronym ELL (i.e., English language learners) is used to refer to students themselves who are learning English as their second language in the Canadian mainstream educational context and their position of currently learning the English language. The term ESL (i.e., English as a second language) is adopted in conjunction with the programs and classes that are specialized for ELL students as well as teachers and specialists who work with the ELL student population.

continues to increase by around 10% each year across BC, reflecting the recent demographic shift due to the influx of new immigrants (Seyd, 2020). Given the considerable size of the ELL population, it becomes particularly concerning that persistent achievement gap between ELLs and their native English-speaking peers has been reported from studies on immigrant children's social and academic integration in Canadian schools (Deschambault, 2015; Garnett, 2010; Gunderson, 2007; Pavlov, 2015). This disturbing finding is consistently corroborated by the evidence yielded from studies conducted in other North American context that ELLs are not sufficiently supported in their academic learning in the public school system (Escamilla et al., 2018; Guo & Maitra, 2017; Han & Cheng, 2011). On the one hand, teacher education courses have been failing to either sensitize teacher candidates to cultural and linguistic diversity they are expected to encounter in future classrooms or to provide pedagogical tools or strategies to grapple with these differences (Durgunoglu & Hughes, 2010; Gunderson, 2000; Li & Jee, 2021; Webster & Valeo, 2011). On the other hand, the quality of specialized support that ESL (and special needs) students are entitled to receive is often most severely compromised in the face of the perennial issue of teacher shortage. It has become a commonly accepted practice to reassign learning support teachers to cover the temporary absence of classroom and on-call teachers (Benning, 2017).

The existing challenging situation for ELLs has been unavoidably exacerbated due to the substantial changes that COVID-19 has inflicted on our life and education. Since the outbreak of this pandemic, a marked decline in language and literacy growth has been identified among children, particularly those who are second language learners. These young learners face both socioemotional and academic challenges due to the reduced social interactions and language input resulting from COVID-19 health measures and the limit of online instruction (Granados, 2020; Pier et al., 2021; Rogers et al., 2021). In the meantime, the sudden shift of remote teaching and learning mode due to school closures resulted in ESL teachers' significant increase of workload to migrate instructional materials online and coordinate with families with updated learning schedules. These challenges were intensified due to the widespread lack of training and professional support. Even teachers who taught face-to-face under the pandemic safety protocols (e.g., students sitting at their desks and maintaining social distance; having their faces covered by masks) found it impossible to carry out learning tasks that were central to building students' academic English proficiency, including shared book reading and small group discussion (Li et al., 2021). As Reimers and his co-contributors (n.d.) noted in their annotated online learning resources, "For educators, the COVID-19 pandemic is a quintessential adaptive and transformative challenge, one for which there is no pre-configured playbook that can guide appropriate responses" (p. 3).

Frontline teachers' experiences and coping strategies for trudging through this uncharted educational landscape can serve as valuable first-hand resources for reimaging school-based practices in English language support. Using prolepsis, the anticipation of a future act or development as if presently existing or accomplished, as a tool of analysis, this paper aims to reach into the past experiences of 11 ESL teachers (also called ESL specialists in BC; ELL experts in Ontario; ESL consultants and teacher specialists in Alberta) who taught ELLs in Grades 1-8 both online and in a blended model during the pandemic school closures from 2020-2021 in British Columbia. The goal of this paper is

to build on teachers' past experiences of teaching before and during the pandemic and "flash forward" to structure classroom literacy instruction to be consistent with what they imagine to be for ELLs post-pandemic (Cole, 1996, p. 185).

In literary terms, the word "prolepsis" describes the moment in a short story or novel when the reader becomes fully cognizant of past, present, and future events all in one instant (Hall et al., 2017). In this paper, we use prolepsis as a way to reach into the past research on how ELLs were supported pre-pandemic, spring into the contemporaneous reflective moments of the teachers who shared their experiences during the early stages of the pandemic, and "flash forward" to the current and future possibilities (Hall et al., 2017). We foreshadow the emergence of events or experiences perceived by the teachers to be similar to what Pinar and Grumet (1976) call the 'synthetical moment' that totalizes the fragments of their teaching experience during the pandemic. We aim to place this integrated synthetical understanding of the ESL teachers' experiences into the current educational and sociocultural context in order to envision a more equitable future for ELLs' language and literacy education and insert that future vision into the present educational systems to enable transformative change. This proleptic approach is therefore "regressive— progressive— analytical— synthetical" (Pinar & Grumet, 1976, p. 51). By locating these teachers' synthetical moments and "experiences of profound insight that merge time, space, and self in a seamless transhistorical moment" (Slattery & Langerock, 2002, p. 349), we hope to deepen awareness of the complexities of supporting ELLs during the unprecedented pandemic time and invoke a reimagining of post-pandemic literacies for teachers to better support their ELLs moving forward. Specifically, we examine the following two questions:

1. What were the ESL teachers' experiences with supporting ELLs in online and blended model of instruction during the COVID-19 pandemic?
2. What future post-pandemic classroom literacies did these teachers evoke for ELLs?

Reaching into the Past Practices of ESL Teachers: ELL Supports and Services Pre-Pandemic

While much research in the past focused on mainstream in-service teachers' beliefs and practices in supporting ELLs in regular classrooms (see Lucas et al., 2018), relatively little research touched upon ESL teachers' beliefs and practices in ESL classrooms. Limited research and policy documents in BC and Canada suggest that ESL teachers' supports and services were mostly provided in-school contexts. While parental engagement was emphasized in all schools and in some provinces, ESL teachers in BC contributed a component to the ELL report cards on "ways the parents can support the student in their learning" at home, but only the mainstream in-service teachers had direct communications with parents (Government of British Columbia, n.d., p. 13). In some cases, ESL teachers joined the mainstream teachers in parent-teacher conferences.

In schools, ESL teachers generally supported ELLs through two program models, the pullout model and the push-in model or the integrated model. In the pull-out model, ELLs were separated from regular class sessions to receive additional English language instruction from ESL teachers with other ELLs. In contrast, the push-in/integrated model describes the collaboration between ESL and classroom teachers to work closely in the

general education classroom to provide instructional support and differentiated instruction for ELLs (Alberta Education, n.d.). This model was preferred in many schools and districts because "integrating language teaching with the teaching of curricular content in thematic units simultaneously develops students' language, subject-specific knowledge, and high-order thinking skills" (British Columbia Ministry of Education [BCMOE], n.d., p. 9). In this model, support for ELLs was mainly the responsibility of regular or mainstream classroom teachers who often worked in collaboration with ESL teachers. The decisions on which model of ELL support to adopt was dependent upon each school or district's policies and resource availability. It was a common practice that several schools shared one ESL teacher who had to travel to different locations to serve ELLs (see Trahey, 2018).

In terms of pedagogy, support services provided by ESL teachers focused primarily on language instruction with attention to ELLs' development in both social and academic language with specific attention to listening, speaking, reading and writing skills in English. Informed by Cummins's (1979, 2008) distinction between *basic interpersonal communicative skills* (BICS) and *cognitive academic language proficiency* (CALP), social language attended to conversational fluency in English while academic language focused on students' ability to understand and express, in both oral and written modes, concepts and ideas that are relevant to success in school (Cummins, 2008). The goal of these supports and services was to enable students to become competent in social and academic communication to "achieve the expected learning outcomes of the provincial curriculum; develop their individual potential; and acquire the language proficiency, skills, and learning strategies and interpersonal skills needed to succeed in school and contribute positively to society" (Government of British Columbia, n.d., p. 11).

Although the nature of the ELL supports may vary by teacher, school, and district, the general recommended ELL supports and strategies included explicit language instruction that intentionally teaches language form, function and vocabulary in all content areas; differentiated instruction that adapts resources, learner tasks, and teaching strategies based on the proficiency of individual ELL students; culturally responsive practices that acknowledge and use ELLs' first languages (L1s) and prior knowledge for English language and academic concepts learning; and use of multimodal resources representing multiple perspectives which included realia and visuals to build background knowledge, manipulatives, visually supported texts, and digital resources such as videos, websites, apps and tools such as translator dictionary, text-to-speech and speech-to-text software, and interactive multimedia (Alberta Education, n.d.; Government of British Columbia, n.d.; Ontario Ministry of Education, n.d.). It must be noted that even though these resources were recommended and used sometimes in ESL and mainstream classrooms, there was an absence of explicit instruction on school-related new literacies and technologies and a disconnection from ELLs' language and content-learning needs; and these resources were mostly used as teacher instructional demonstration tools in the face-to-face instructional mode, rather than as student-centred, integrated learning tools (See Li, 2017).

As such, teacher knowledge and expertise pre-pandemic focused mostly on ESL teachers' background in applied linguistics (e.g., how English works, including language variation, language features, and metalanguage), first and second language learning and acquisition, language assessment and testing, and understanding the distinction between

BICS and CALP (Fillmore & Snow, 2000; Schleppegrell, 2020; Téllez & Mosqueda. 2015) and repertoire of instructional strategies for ELLs including differentiated instruction and linguistically and culturally responsive teaching (Goldenberg, 2010; Li, 2018; Lucas and Villegas, 2013). In British Columbia, for example, the ELL Policy Guidelines (n.d.) specified that qualifications of ESL teachers (or ELL specialists) should include post-secondary academic preparation in a combination of areas including:

> Methodology and appropriate approaches for teaching ELLs;
> Applied linguistics;
> First and second/additional language acquisition/learning;
> Language assessment/testing theory and practice;
> Cross-cultural communication, understandings, sensitivity, and strategies;
> Multicultural studies
> Adapting instruction to meet the diverse language needs of students (p. 14)

Given the unique and much needed expertise of ESL teachers, they were often considered a resource for mainstream teachers to "learn about ESL methods and materials, modifying the curriculum and exchanging vital information about students' abilities and progress" (Baltus & Balhiah, 2013, p. 11). In fact, educating ELLs was seen as a shared responsibility between ESL teachers and mainstream teachers; and districts often promoted collaborative practices "among the educators who have contact with the ELL student" (Government of British Columbia, n.d., p. 7). Research has also documented some productive collaborations between ELL teachers and classroom teachers (e.g., Balthrop, 2018; Li et al., 2019; Van Viegen Stille et al., 2015). However, regardless of both group of teachers' beliefs in the importance of a cohesive educator team in ESL education and their strong willingness to work together, research evidence suggests a limited, surface-level collaboration between ESL and classroom teachers due to limited training, technology, time, and administrative support to fulfill the meaningful teamwork (Li et al., 2019; Vintan & Gallagher, 2019). For example, in Li and colleagues' (2019) account of ELL and subject area teacher collaboration in Vancouver, it occurred by chance through the initiation of the ESL teacher and only on one particular topic (e.g., lab-report writing). In another self-study of learning how to initiate and sustain collaboration with a seventh-grade social studies teacher at a suburban middle school in the southeastern United States as an ESL teacher, Giles (2018) revealed serious misconceptions of ESL teachers' role in such collaboration (e.g., as an aide in the classroom, rather than an equal partner in co-teaching and co-planning). Others have also noted structural challenges in such collaboration where ESL teachers were marginalized in the schools and had no real contact with regular classroom teachers due to high workload, the need to travel between schools, and lack of regular space for ESL instruction (e.g., Li, 2022; Li & Protacio, 2013; Trahey, 2018).

Due to these barriers, ESL teachers and the services and supports they provided were frequently misunderstood and/or undervalued. Research on the perceptions of ELLs and parents of ESL supports (especially the pullout programs) documented negative perceptions and widespread dissatisfaction with pull-out ESL programs among parents of ELLs, believing that they were not effective in helping ELLs gain the cultural, linguistic, and academic competence needed to integrate into the school community (Deschambault, 2015; Guo & Maitra, 2017; Hittel, 2007; Van Ngo, 2007). In fact, ESL classes were widely

seen as a stigma or obstacle by many ELLs and their parents to their academic success and social integration and they sought to exit the programs as quickly as possible even though they were unable to progress through regular English language classes without language support (Gunderson, 2007; Li, 2018; Li & Locher-Lo, under review). To date, existing studies have mostly focused on students' and parents' perspectives and mainstream teachers' experiences and practices. Few studies have examined ESL teachers' experiences and practices. We could locate just a handful of studies on K-12 ESL teachers and their practices: Li (2018) and Li and colleagues (2019), who focused on one ESL teacher's program revision effort and collaborative project; Giles (2018), who reported her own experiences of collaboration with a content-area teacher; and Trahey (2018) who reflected on her 20 years of teaching ESL in St. Johns, Newfoundland. Since ESL teachers shoulder a major part of the ELL supports and services, their perspectives and experiences matter, especially through the uncharted territory of the pandemic time. This study aims to capitalize on their insights and lived experiences during this challenging period. We hope by documenting what it was (and is) teaching ELLs remotely during the pandemic, we envision what can be for both ESL and mainstream teachers alike post-pandemic (Pinar & Grumet, 1976).

Zooming in on ESL Teachers' Practices during the Pandemic: Method, Participants, and Contexts

The ESL support teachers included in this analysis were identified through their responses to an invitation for a follow-up interview via a teacher survey on language and literacy instructional approaches in Spring 2020. Of the 16 teachers who were interviewed during September 2020 to May 2021, 12 (see Table 1) were ESL support teachers working with Grade One to Eight ELLs and were included for the purpose of this analysis. All the 12 teachers provided remote language learning support during the pandemic school closures between March and June 2020, and had transitioned to teaching under a blended model by the time of the interviews.

Table 1
Background information of participating ESL teachers

Teacher Code	Gender	Ethnicity	Highest Degree Completed	Years of Teaching ESL	Model of ESL Support	How Many ESL-related Course Taken?
T1	F	White/European Canadian	BA (Secondary Education)	More than 15 years	Integrated	1-2

T5	F	White/European Canadian	MA (Curricular Design)	3-5 years	Pull-out	None
T7	M	White/European Canadian	MA (Humanities)	Less than a year	Pull-out	None
T9	F	Asian	BA (Elementary Education & ESL/Second Language Acquisition)	More than 15 years	Integrated	7-8
T12	F	White/European Canadian	MA (ESL/Second Language Acquisition)	1-2 years	Pull-out	7-8
T14	F	White/European Canadian	MEd (Educational Administration)	9-11 years	Mixed	1-2
T15	F	South Asian	BA (Elementary Education)	3-5 years	Mixed	3-4
T17	F	White/European Canadian	BS (Geography)	1-2 years	Pull-out	1-2
T18	F	White/European Canadian	MA (Secondary Education)	More than 15 years	Integrated	3-4
T27	F	Asian	PDP (Secondary Education	3-5 years	Pull-out	5-6

			& ESL/Second Language Acquisition)			
T29	F	South Asian	BA (Special Education)	6-8 years	Pull-out	3-4
T40	F	White/European Canadian	MA (Gender, Sexuality and Women Studies)	1-2 years	Pull-out	None

In response to the outbreak of the COVID-19 pandemic, schools in BC first modified their instructional practices to remote teaching during school closures from March to June 2020. After the summer break, schools resumed face-to-face instruction in September but offered remote teaching as well as hybrid options from September to October 2020. Since November 2020, schools in BC have returned to face-to-face instruction. The structure of ESL support varied across schools where the participating teachers taught before and during the pandemic. During face-to-face instruction, it was up to individual schools to decide what changes to the class arrangement were in the best interest of their students and faculty in response to the COVID-19 safety regulations in BC. Some schools suspended pull-out ESL sessions to minimize the contact between students from different cohorts and ESL teachers were asked to provide in-class language support instead. Other schools that adopted an integrated ESL teaching decided to switch to pull-out sessions to reduce the number of people sharing a single indoor space.

Data Collection

All participants were interviewed individually from September 2020 to May 2021 via Zoom meetings using a semi-structured interview protocol. Each interview lasted about one hour; and all interviews were recorded using the Zoom recording function. The audio recordings were later transcribed and entered into NVivo 12 for further analysis. The interview protocol probed into participating teachers' educational and professional backgrounds, overall beliefs and classroom practices about working with ELLs, as well as how they interacted with and provided support to ELLs and parents from diverse cultural and linguistic backgrounds. Considering the salience of change in school operations and teachers' instructional behaviors in response to COVID-19, questions were also devised to tap into teachers' comparative views on the pre- and in-pandemic teaching experience as well as their insights into the change of ESL support structure schools introduced under the pandemic safety protocol.

Data Analysis

The thematic analysis method (Clarke et al., 2015) was employed for a systematic examination of ESL teachers' experience and classroom practices through different stages of the pandemic. An open, inductive coding method was first applied to the interview data to identify commonalities, which included teacher perceptions of COVID-19 impacts on teaching, impacts of COVID-19 on ELL learning, teaching strategies during COVID-19, communicating and working with parents, etc. by looking for "profound insight that merge time, space, and self" (Slattery & Langerock, 2002, p. 349). In their reflections on impact of COVID-19 on ELL teaching, two recurring experiences included the swift switch to online instruction and the opportunities of team-teaching with mainstream teachers. In terms of the impact of COVID-19 on ELLs' learning, social-emotional learning (SEL) emerged as common experiences.

Informed by the proleptic approach, the data chunks around the four aspects of the teachers' common experiences (SEL, parent engagement, online instruction, and team teaching) were further coded using temporal codes to contrast teachers' experiences that happened before/at the beginning of/during COVID-19. Finally, these temporal categorizations before and during the pandemic were linked across the participants using axial coding to present synthetical accounts of the ESL teachers' experiences (Pinar & Grumet, 1976).

Entering the Proleptic Moments of ESL Teachers' Practices of Supporting ELLs during the Pandemic: Findings

Our proleptic, thematic analysis of the teachers' past experiences during the pandemic identified four important classroom literacies for ESL (and mainstream) teachers for language and literacy instruction post-pandemic: The need to integrate social-emotional learning (SEL) into ESL instruction, adopt interactive, student-driven instructional designs and practices afforded by multimodal technologies, maintain multiple channels of communication with parents and students afforded by technological tools (i.e., different language settings and translation tools), and team-teach with classroom teachers to provide tailored, timely language support for ELLs through co-planning and co-teaching. These findings illuminated how the teachers translated pandemic teaching experience into constructive perspectives and practices to continue supporting ELLs from diverse linguistic and cultural backgrounds through hybrid instructional models.

"As Human Beings We Need It More Than Ever": Integrating Socio-Emotional Learning into ESL Instruction

ELLs' socio-emotional state hadn't presented itself to ESL teachers as a major concern before the outbreak of COVID-19. Only three teachers in the interviews indicated that they had taken some actions to show their care about learners' socio-emotional well-being at this stage despite observing mental struggles among their students. Teaching in a school with a large number of young international students over the years, Teacher 17 had encountered many students who experienced separation from one or both parents and she recognized that "it could be quite traumatizing … coming to a completely new country

where you don't know the language and it would just be so alone and it's really hard." Teacher 40 similarly observed that students often

> … felt they could not share the pressure and the fears … when they so badly wanted to impress their parents, to make their parents and grandparents proud. And the fear of that was so overwhelming that their socio-emotional state was one of stress, was one of anxiety and they had no one to talk to.

Regular socio-emotional check-ins were adopted by some teachers to help develop an understanding among the students that "it was ok to have these human feelings" (Teacher 40). For instance, Teacher 17, who placed her ELLs' socio-emotional well-being at the top of her priority list, made sure that her pull-out sessions began with a regular socio-emotional check-in to show her students care and attention. As she mentioned in the interview, "So usually like a check in, a social-emotional check in. How are you feeling? Do you want to share?" At times, she would also invite "a written response… that can be written in English or home language or just pictures" to encourage the expression of emotions for learners of various English proficiency levels.

The issue of students' mental stress became salient at the beginning of COVID-19 as the remote learning mode created additional challenges and burdens for ELLs' academic learning. Being cognizant of students' heavy workload from after-school programs, Teacher 40 expressed her concern that "sometimes I worry a few students could be a bit burnt out… some of them express so much anxiety about their performance and express directly that they don't feel like they're good enough." To help lessen the mental burden on academic learning, Teacher 40 reduced the assignment load and came up with more self-guided, optional learning resources for learners, elaborating in the interview,

> I am also cognizant that a lot of them have tutoring outside of school. So, I gave them access to the resources, but also tried to reassert that it's just to support them and that it's self-guided and it's not something that they need to do, something that will help them. But I know that a lot of them have a lot of classes outside of school, so I try not to give them more.

As the pandemic situation continued, ESL teachers raised stronger awareness of students' social-emotional state. As the effects of increased social isolation and screen time began to kick in, it appeared evident to teachers that their students were becoming exhausted both physically and mentally. It became more urgent than ever for ELLs, who had been suffering from socio-emotional burdens before the pandemic to receive stronger support and encouragement for their expression of emotions. As such, language and literacy activities were integrated into their ESL support sessions (e.g., regular socio-emotional check-ins, games with emotion vocabulary, written response about feelings in either English or home language, reduced assignment load) to enrich ELLs' expressive vocabulary repertoire so that their social-emotional issues could be well monitored, and needs responded to promptly.

Teacher 18 shared that she was very anxious about COVID-19 and was worried about her own son and his friends, as well as her elderly parents whom she had not visited since the outbreak of COVID-19 for fear of making them sick. Her own anxiety and fear

made her realize that her students may have similar worries and concerns, as well as expected ones about their learning during this precarious time, and "they need a safe place, soft place to land." She elaborated,

> Students need places to talk. And now in COVID more than ever, they need a safe place to talk…We need to provide environments for them. …They need that soft person to talk to and in my school, I know that that was me. And I want that in every school for our students.

She believed that providing social-emotional safety learning for ELLs was the responsibility of not just ESL teachers but all teachers, commenting "Where is the place that [ELLs] can go? Not just your ESL teacher. But how about just the classroom teacher offers that? Is there a club? Is there a group? Is there a place? Because as human beings we need it more than ever." As a district ESL coordinator, Teacher 18 initiated an international club, "a place where you could come and we would start with simple things like what makes you happy, … [ask them to] go around the room and we're gonna break up into groups and to share anything making you sad".

In addition to providing a safe place for students to talk, ESL teachers also believed that it was important to provide tools for ELLs to do the talk. In several schools, regular classroom teachers often came to ESL teachers to express their concern about ELLs having difficulty with problem solving because they were not able to express themselves. Teacher 17 realized that ELLs "don't have the vocabulary", so she came up with the idea to prepare ELLs with the language to express their emotions. Teacher 27, while working with beginning level ELLs in pullouts, identified the same issue as being more urgent for learners at lower English proficiency levels. She creatively incorporated the teaching of words of emotions with fun games. After a Halloween pumpkin-cutting activity, Teacher 27 introduced the vocabulary by asking students to label the emotion or the feeling of the pumpkins that had different facial expressions, "like it could be surprised or it could be angry, …, it depends on how the student sees it". In a following session, she reviewed these emotion expressions through a Bingo game, "I picked up a random pumpkin, then students would have to tell me what emotion that was and then you were trying to like make a bingo line", as Teacher 27 explained.

The teachers' quotes presented in this section consistently pointed to ESL teachers' enhanced awareness of the urgent need to maintain ELLs' social-emotional well-being as they provided sustained language support throughout the pandemic. This shift of attitude was coupled with the teachers' enriched instructional repertoire to enact their socio-emotional support, especially as an integral part of the English language teaching and learning process.

"We've Had a Lot More Familiarity and Time With It": Adopting Multimodal Technology

Teachers had long been resorting to a multimedia classroom environment to enrich their instructional approaches and enhance the engagement of ELLs in the learning process. Teacher 9 shared her experience with the successful integration of interactive projector in

her pullout sessions. She highlighted the interactive nature of the technology that significantly promoted ELLs' investment in drill practices,

> When I was in my last school, I had an interactive projector and they loved it. It was still reading, but … I would say ok I want you to go and just highlight the words that you think are science words. So, they would take the interactive pen. Or I would throw up some comprehension questions, [ask them to] fill in the blank, really boring. But if they could take that pen up there and write on the board, they were like, happy.

However, as was revealed in the interviews, in comparison with teachers' familiarity with multimedia classroom configurations and readiness to adapt to such novel instructional tools, their teaching repertoire was constrained by the sudden shift from in-person to remote learning mode at the beginning of COVID-19 school closure. Even teachers who had routinized online instructional platforms (e.g., Microsoft Teams, Zoom) in their everyday teaching before COVID-19 mostly resorted to these platforms as online space for storage and file transfer. "They posted things online, sometimes kids even hand the things in online," as Teacher 5 shared. Teacher 40 mentioned that in her school Teams were only used among fellow teachers for the purpose of communication prior to the pandemic. "Beforehand we weren't using Teams at all. We were using it among teaching staff, but we weren't using it with students". Teachers who provided online English language support described the risk of losing students' attention without proper integration of interactive instructional elements. Teacher 17 shared a similar concern while describing an oral practice session she had with Level One and Two ELLs online that "there are many different reasons … that it [online ESL teaching and learning] was beneficial for a lot of students. But at the same time, I think it was very detrimental … it was disengaging, and they didn't get all of that oral practice". As remote teaching and learning became the new norm of ESL support through COVID-19, teachers embarked on active exploration of functions and features of online communication platforms for pedagogical purposes rather than mere information sharing or communication among colleagues. Their growing familiarity with these platforms resulted in some enriched informal, interactive, student-driven instructional designs and practices that continued to benefit ELLs after school return. For instance, Teacher 40 noted that the most significant change for her was the expanded use of online teaching and learning platforms such as Teams, "After March, we've had a lot more familiarity and time with it". Like all the other teachers, she had to learn how to teach and provide support for her pullout ELL groups through the platform. For instance, she noted down the student-generated questions during discussion activities in a pullout session with her Grade Six students and posted them on Teams for home-based, less stressful practices. She explained,

> My pull-out groups, and I will have a page for them on Teams. So, I have one that one group I mentioned, where we have a lot of discussion-based activities. I'll often take a picture of the notes that I took about vocabulary, terms or questions they had and then post them on their Teams page. And I make a kind of an informal activity, say like, can you answer one of the questions we asked in class? Or read this at

> home with your parents and see what they think? So, I do use it more and integrate more, and it's easier to give them something to practice at home that is not too onerous, but it's connected to what they're doing in class.

Teacher 40 also reflected her journey of overcoming the online teaching barriers and incorporating interactive teaching elements in her synchronous sessions with tools offered by the online teaching platform:

> I feel like I've incorporated more technology, just because we had so much of that over the break and I had to find other ways to adapt. I think it forces me to think more creatively about how like content and lessons, because games you can play in person or activities that you can do in person, you can't necessarily adapt, or you have to be creative with over video calls. … I know that Teams has the whiteboard feature. So, if you get to a concept, you can invite students to add visuals or texts to see if they really got to the meaning.

Even when she incorporated videos as multimodal learning resources, she utilized them responsively, "I'll pause throughout, especially in my small group, and be able to discuss the concept or make sure that I check for understanding on what they're watching".

In addition to teaching through online technology, ESL teachers also shared that they provided individual feedback and close monitoring of students' reading at home. Several teachers used online reading programs such as RAZ Kids and EPIC, through which they could check students' reading progress online during COVID-19. Teacher 27 shared an example of her feedback to a student who needed more practice reading at her level, "I will attach her with a program called RAZ Kids, and then tell the mom that I can look online to see how much she's done. I would like her to read this book by next Friday so I can discuss it with her during pullout time." Whereas prior to COVID-19 school closure, considering the sufficient face-to-face teaching time, ESL teachers preferred self-made multimedia slides developed to support direct instruction of the focal language knowledge of the session. The online guided reading apps were typically utilized as supplemental resources for home-based, self-guided learning. For instance, Teacher 40's school had access to programs such as RAZ Kids and Reading A-Z and she would share the log-in information with the parents so that "they can help children practice at home if they're wanting to and have the time".

Teaching online allowed some ESL teachers to provide support more aligned with the regular classroom teachers. For example, Teacher 14, who was teaching a pullout ESL class for fifth and sixth graders, found that a regular classroom teacher for some of her ELLs was doing a unit on the solar system. She searched for very simple YouTube explanations for ELLs and put them on a blog on Teams. For some ELLs who she thought might have difficulty understanding the content, she also used Google Translate to translate small chunks of information into their home language, a simple gesture that was appreciated by parents. She noted, "It [Google Translate] might not have been perfect because I know the translation is sometimes peculiar, but one of the parents wrote back and said thank you for the translations."

Regardless of teachers' existing knowledge with the technology-enhanced face-to-face teaching, the interview excerpts showcased the unique challenges that distant learning posed to ESL teachers and the learners they had been working closely with. Teachers' proactive navigation of the embedded interactive tools in the online teaching platforms yielded innovative ways of engaging students in the learning process. Retrospectives into the problematic instructional moments also drove teachers to explore additional educational resources to guarantee their ELLs' sustained progress in English even though they were receiving support from home.

"COVID has Kind of Helped Us to Be Even Closer": Maintaining Multiple Channels of Communication with Parents and Students

It was commonplace for ESL teachers that the parents were not aware of the type of ESL support their children were receiving in schools. Speaking from the district coordinator perspective, T9 and T18 both regretfully mentioned that most parents only had conversations with classroom teachers; and some of them even couldn't name their children's ESL teacher. They were not fully informed of their children's progress in the ESL class or when they could become exempt from receiving additional English language support. This concerning situation began to change with the arrival of COVID-19. Remote teaching required both classroom and ESL teachers to frequently check in with students individually to ensure their process of learning. In this sense, "I think COVID has kind of helped us to be closer," Teacher 27 commented.

The ESL teachers appreciated the convenience of online teaching/learning platforms which greatly eased their communication with parents from non-English-speaking backgrounds during COVID-19. The multiple language settings, translation tools, and asynchronous written communication design eased the stress of English-mediated interactions for immigrant parents who may have refrained from direct communication with teachers due to the lack of confidence or comfort in speaking English. Teacher 17's experience attested the advantage of technology-assisted channels of communication. She explained,

> I think that online there are so many tools to make communication more accessible for parents. … and I think parents were a lot more confident communicating that way when they had the time to translate, an email for example, and then translate their response before they sent it back. Or their child used Microsoft Teams, which has a translate tool, so parents were able to.

The availability of different methods of communicating with teachers was well received by parents of ELLs. Teacher 40 mentioned that parents started to reach out to her since the school closure asking for more support. In response to their requests, she send home PowerPoints she made. To Teacher 40, sharing class materials was also an indirect way of communicating with parents,

> …especially if the parents are not comfortable speaking in English or don't have as much English language exposure. If we give them PowerPoints at least they can go

> through it and have that that visual as well and have resource that is…They have continuity with what they are doing in the classroom.

The synchronous class session served as another channel of indirect communication, as parents were offered a valuable opportunity to get to know the rich and solid language support their children were receiving. Teachers 5 and 27 identified the shift of attitudes among parents who used to regard "being an [ELL] as a stigma, and their child is lesser" but "slowly…they begin to learn to appreciate ESL" (T5). Similarly, T27 observed that due to her constant communication with the parents, they "no longer felt confused or seeing ESL as a disadvantage… or worried or questioning what is my child getting for English support."

The sustained communication with ELL parents through COVID-19 school closure led ESL teachers to seriously reflect on their practices of parental involvement. Teacher 18 had planned for systematic incorporation these technology-assisted channels of communication into future practices. As she envisioned, "this is our next stage to get parents… non-English speaking parents to be involved more by using the tools that are accessible to them." Teacher 17, in comparison, regretfully commented on their failure to maintain this constructive relationship with parents after students returned to face-to-face instruction. According to her,

> I think that's definitely one of my goals is more communication with my families, and it's interesting because online learning really had an effect on how much I communicated with my families. And, it's funny cause I haven't really thought of it in the spring [during school closure] when you were in it; but I missed that. It was a necessity I think to be in constant communication with parents and once we are back in school. I guess we've kind of lost that again.

Taken together, regardless of the challenging and regretful moments ESL teachers were faced with in their teaching during COVID-19, they recognized the fortuitous experience of elevated degree of quality interaction they had with the ELL parents at the same time. The benefits of technology-assisted communication between mainstream teachers and parents from non-English-speaking background (e.g., available translation tools, a less stressful medium for parents to interact with mainstream school teachers) also shed light on the future practices of school-home communication as the back-to-school mode of learning resumes in the future.

"Magic is Happening": Team-Teaching with Mainstream Teachers

According to Teacher 9, "the culture of teachers … used to be teaching solo, … a lot of teachers. They are not used to having people attached to them or people coming in". Teacher 1 indicated regretfully that "even before COVID, teachers, they like to do things the way they like to do them. It's hard to make change." She suggested that there had been a general lack of training or experience among classroom teachers to provide tailored academic content lessons and supporting materials to classroom teachers' general lack of training in accommodating academic content lessons and supporting materials for students with limited English proficiency. Such knowledge gap, as was indicated by Teacher 9, had

resulted in classroom teachers' reluctance to collaborate with their fellow ESL teachers. According to Teacher 9,

> We are trying to train more teachers to use the SIOP model. At this point mostly ELL teachers have been tried using the SIOP model but it would be nice if they also include classroom teachers to do that. It's not what our ideal is, we're not there yet.

There were also practical reasons that hindered meaningful collaboration between teachers, with the shortage of time for substantial planning and coordination being the most salient issues. As Teacher 14 elaborated,

> It's really difficult to do because teachers are under stress with all the needs in their classroom, and they don't allow us any collaboration time to sit and plan with classroom teachers to really effectively support them so that they can make adjustments to their delivery, their program to allow these kids to be successful and to participate. So, it's also frustrating for me to see that these students are often just sitting in the classroom and then some teachers say, well, can you give them something to do?

ESL teachers also found their caseload overwhelming, and it was almost impossible for them to establish meaningful partnership with the teachers from each of the classes they were assigned during regular school

> … in my ideal world, I would be co-teaching with the class teacher. But our system is not set up for that. There's not enough time to divide yourself between 20 teachers and be in every classroom enough time to follow [and], do a program.

The consequence of minimal collaboration between classroom teachers and their ESL support colleagues appeared particularly prominent at the initial stage of COVID-induced remote learning. Classroom teachers' overall lack of awareness or tools to work with ELLs made it even more challenging for students who had been struggling academically with the language barrier. For example, Teacher 5 mentioned in the interview,

> The lockdown was very eye opening in that, I discovered that, not all teachers adapted or modified ELL students' classroom work. So, for example, if kids in a classroom of 23 or 25 are given a list of gallery words, the number of words or the type of words weren't ever changed to accommodate ELLs.

Despite the challenging circumstances posed by the pandemic, the school COVID-19 specific safety regulations (i.e., keeping students in the same cohort together) also coincided with districts' efforts to promote integrated ESL support rather than the conventional pull-out model. ESL teachers mentioned the increased time and opportunities to provide tailored, timely language support for ELLs through planning and teaching with classroom teachers during COVID-19 school return. Teacher 18 who had been passionately promoting the integrated approach to ESL support provided a positive comment on the

change of dynamics COVID-19 had actually exercised with respect to collaboration between the different teaching forces,

> COVID couldn't have happened at a better time. … Everybody has to stay together in their cohort. So, if they stay together in their cohort, that means students aren't being taken away. They are all staying together. And the ESL specialist, the teacher is staying and working alongside the classroom teacher. And you know what? Magic is happening. … and our learners are actually benefiting from two teachers and everybody working together, so we're actually seeing some success because of COVID.

Her observation was further corroborated by the experience shared by other teachers during the interviews. Teacher 27, for example, was able to spend extended time in the same space with one cohort after in-person instruction was resumed, "Instead of my past experiences working with like five divisions in a year, I've been only working with two divisions, so I really get to spend a lot of time with the students." As such, Teacher 27 had more opportunities to discuss with the classroom teacher at various occasions throughout the day, "for instance, I'll ask them when the students are washing their hands, 'what do you think will be the best use of my time today?'" She was able to better plan for in-class support "because the visual schedule is on the board and I know what's going on," she said. Teacher 27 provided a further description of how she approached in-class ESL support after being informed of what the classroom teacher had planned for the day,

> It's owl project time for the students right now. They just finished reading this book called Owl. For the Science Project, they need to look up a specific owl of choice and then doing inquiry questions. So, inquiry questions itself is a difficult idea for ELL students to understand. What is an inquiry question? It has to be an open-ended question; it can't be just a yes or no answer. So, I would take some of the ELL students … if I see that they are falling behind.

Viewing from the teachers' interview quotes, although the already problematic mode of collaboration became even more salient at the initial stage of COVID-19, ESL teachers also recognized the unexpected opportunities for more intimate collaborations with their fellow classroom teachers for a consistent and productive learning experience for ELLs. The ESL teachers also critically identified institutional constraints as roadblocks for productive co-teaching to take place, which provided insights for school districts and teacher educators to better envision their support for promoting integrated model of ESL education post pandemic.

Flashing Forward: Rethinking ESL Teachers' Knowledge Base for ELL Education Beyond the Pandemic

The ESL teachers' synthetic accounts emerging from reflections on their experiences supporting ELLs revealed several "new" areas of importance in teachers' knowledge base post-pandemic: How to integrate socio-emotional learning with L2 development, how to connect with ELL parents, how to engage students in learning through digital tools, and how to co-teach and co-plan with mainstream teachers. These revelations

suggest that the focal areas on teachers' knowledge base in applied linguistics and repertoire of instructional strategies pre-pandemic are insufficient for educating ELLs; rather, these "new" areas of expertise must be systemically integrated in pre-service teacher education and in-service professional development programs.

The ESL teachers' awakened awareness and recognition of the importance of SEL for all of their ELLs during the pandemic suggest the need to expand teachers' literacies or knowledge base in how to integrate SEL into students' L2 development. Although the importance of SEL for all students, particularly for marginalized students, has been recognized by many teachers to promote students' academic achievement in a safe and supported learning environment (Denham & Brown, 2010; Domitrovich et al., 2017), special SEL programs were often taught isolated from the regular classroom curriculum (e.g., Positive Action, Second Step) and mostly designed for those identified as needing support, ELLs or not. In most cases, it remained the responsibility of classroom and ESL teachers to attend to ELLs' socio-emotional well-being in the process of academic/language teaching and learning (Kao, 2017; Melani, Roberts, & Taylor, 2020). Moving beyond the pandemic, it is also critical for ESL teachers to infuse SEL-oriented teaching practices for the ELL population. Among the many classroom-based efforts to engage ELLs in SEL, ESL teachers can break the English only policy and integrate learners' L1, e.g., by using digitally mediated, dual-language book-reading activities with young ELLs (Jacoby & Lesaux, 2019) or high-level texts with older ELLs (Gibb & Li, 2018), as native language literacy support bolsters relationships in the classroom and provides opportunities for positive social-emotional interactions. Other practices include the integration of movement and dance into classroom lessons to bolster peer interaction, which can lead to their stronger sense of belonging and improvement of oral English proficiency (Greenfader & Brouillette, 2017). Teachers can also adopt a dialogic reading approach to promote social interaction with teachers and peers and social-emotional skills (Doyle & Bramwell, 2006).

Connecting with ELL parents can also enhance ESL teachers' attention to ELL's SEL. Before the pandemic, even though ESL teachers contributed suggestions for ELL parental involvement, they had less opportunity to directly communicate and connect with ELL parents due to large case load and ESL program structures. Their experiences during the pandemic gave valuable opportunities for them to be in direct contact with ELL parents and learn about students' home literacy practices. However, having been exposed to different cultural and educational models from the North American mainstream schools, parents of ELLs have been found to be reluctant to participate in their children's schooling in the ways their teachers would expect, including showing up in schools and having direct interactions with schoolteachers (Guo, 2006; Li & Sun, 2019; Mujawamariya & Mahrouse, 2004). Sometimes, the physical absence of these parents was misinterpreted as parents' lack of investment in their children's education, and the actual barriers to ELL parents' involvement are overlooked (Harper & Pelletier, 2010).

The ESL teachers' experiences with ELL parents during the pandemic suggest that ESL teachers are in the perfect position to break down these barriers and misconceptions of language minority parents. In fact, they should play a central role in connecting with ELL parents through maintaining regular, multimodal communication channels to lower the language barrier for parents with reservations about their English use (Olmos, 2022;

Panferov, 2010), keep parents informed of the structure of the ESL program and their children's progress in English learning (Guo, 2006), and approach parents through cultural reciprocity (Li, 2013, 2020) to value and respect the multicultural and multilingual backgrounds of parents and their communities.

In addition to attending to ELLs and connecting with parents, ESL teachers also need to relearn some technology-enhanced L2 instructional practices. While pre-pandemic emphasis on provision of multimodal resources is still relevant, the ESL teachers' experiences of struggling to teach and engage students via technology suggest the need for ESL teachers to advance their multilingual, multimodal teaching practices in classrooms by enriching their pedagogical repertoire with different digital technologies including PowerPoint, iMovie, iPhoto, and iPads beyond the pandemic. There is a need to support learners of various English proficiencies through engaging multilingual voices, images, songs, drama plays, and writing in both ELL's L1 and English where their family/community funds of knowledge are acknowledged and valued (McGlynn-Stewart et al., 2017).

Finally, more than ever, the serendipity of the ESL teachers' productive co-teaching experiences with the mainstream teachers suggests the need for school districts to enact genuine, systemic co-education for ELLs. ESL teachers cannot be just "a resource" (Baltus and Balhiah, 2013), a "teaching aid" (Giles, 2018), or "an ELL dumping ground" (Li, 2022), but an equal educational partner in sharing the responsibilities of ELL teaching. School districts must revise the ELL guidelines to ensure structural support for training, technology, time, and administrative assistance to fulfill the meaningful teamwork (Vintan & Gallagher, 2019). There is also a need to provide "ongoing professional learning, through ongoing dialogue with [both ESL and mainstream] colleagues about students, teaching practices, resources and assessment" (Premier & Parr, 2019, p. 66) to ensure constructive collaborative practices.

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Chapeau à vous[1]: French-minority Language Teachers' Pandemic Pedagogies

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Abstract

The purpose of this paper was to unpack French-minority language teachers' perspectives on the impact of the pandemic on their teaching. In fall 2021, semi-structured interviews were conducted virtually with 40 K-12 teachers of French as a minority language in Manitoba and Nova Scotia. While the pandemic has undoubtedly been challenging for language and literacy teachers, many have also developed adaptations and strategies. This paper focuses on those pedagogical accomplishments and teachers' self-reported moments of success. Three main themes explored were the integration of technology into language teaching, language teacher collaboration and linguistic community building with students.

Key words: minority language education; pandemic; online learning; literacy in a minority language setting; integration of technology, teacher perspectives

Introduction

In Spring 2020, schools around the world closed for an unprecedented amount of time due to the Covid-19 pandemic. Early projections of the impact on literacy learning due to these school closures were as daunting and unknown as the virus itself (Kuhfeld et al., 2020). However, many teachers developed online pedagogies virtually overnight in an attempt to reduce the learning losses projected (Bonk, 2020). While the pandemic affected teachers worldwide, at the time of designing our project, preliminary studies on education and the pandemic focused on majority populations in countries such as the UK (Jones, 2020), USA (Kuhfeld et al., 2020), France (Guironnet, 2020), and Canada (Doreleyers, 2020). Recent studies have remarked that visible minorities in the USA (Maleku et al., 2021), UK (Blundell et al., 2020), and Canada (Dusseault, 2020) experienced different or more profound negative effects due to the pandemic than majority populations. Since we, the authors, both taught in French-minority contexts in our respective Canadian universities, it was our belief that linguistic minorities might also be experiencing similar or different difficulties than the portion of the population that primarily speaks the language of the majority. This led us to develop a study aimed at exploring French-minority teachers' lived moments of hardship but also of successes achieved during the pandemic. Our main

[1] Equivalent English expression: Hats off to you

research goal was to honour teacher voices and particularly the voices of French-minority language teachers in Canada.

Firstly, this article will describe minority language education in general and then will contextualize both research sites in Manitoba and Nova Scotia. This will be followed by a description of the theoretical framework and the methods. Next, the results will be presented under three themes: integration of technology into language teaching, language teacher collaboration and linguistic community building with students. The text will conclude with a section on virtually mediated research accomplishments and general closing remarks.

Minority Language Education

In Canada, outside of the province of Québec, French is an official minority language. Due to Article 23 of *The Canadian Charter of Rights and Freedoms*, official linguistic minorities (Anglophones in Québec and Francophones outside of Québec) have the right to education in their official minority language. Since the signing of the charter in 1982, every province and territory now has at least one school division responsible for French-minority education[2] (Landry et al., 2007). The policies rendering French-language education a right were meant to protect the language and ensure its survival. Minority language education programs are different from majority language educational programs in that language, identity, and culture are crucial components of programming. This distinction has a direct influence on schools, notably on the rapport with the language and how the language is taught (Cortier, 2009). In minority language educational contexts around the world, language revitalisation is a key objective and literacy is generally placed at the forefront of this initiative. The role of language and literacy teachers in French-minority schools is "central" because the medium through which they teach all subjects is the French language (Bullock, 2020, p. 59). Through teaching they show students how to use the language and encourage them to use it in different ways to communicate, explore the world and participate actively in it. In the same way that Moore and MacDonald (2013) noted that "language learning is a form of language maintenance" in First Nation communities, French language and literacy learning is also a form of language maintenance, and is undeniably one of the primary goals of minority language educational programs (p. 703).

The plural concept of multimodal literacies (emphasis on the plural to indicate various forms and modes of literacy in more than one language or dialect), is currently being promoted in curricular documents or didactical material focused on French-minority education in Canada (Dagenais, 2020; Gouvernement du Manitoba, 2017). This is because "many empirical studies suggest multimodal learning enhances literacy" (Holloway & Qaisi, 2022, p. 87). For example, technological tools can lead to development in literacy skills such as speaking or writing (Dagenais, 2020), and multimodal texts can be very

[2] French-minority education will be used in this text to generally describe the schools designated for official Francophone minorities in Canada and to differentiate them from French immersion schools. We acknowledge that many different terms are used to designate these schools in both French and English and within different Canadian provinces.

engaging for the students (Lenters, 2018). Optimal literacy levels and student interest in using the language are exactly what French-minority education schools strive for.

French-minority schools are also expected to, through learning experiences, provide students with opportunities to construct their academic competencies and their identity as members of *la Francophonie* and speakers of the French language (Gérin-Lajoie, 2002; Landry, et al. 2010). In schools, learners experience most of their significant language socialization experiences that contribute to their identity construction. Landry et al. (2005) hypothesized that there were connections between those experiences and a person's language behaviours: enculturation experiences; personal autonomization experiences; and conscientization experiences. To explain personal autonomization experiences, Landry et al., (2005) use Deci and Ryan's (1985) Self-determination Theory. According to this theory, a person's level of self-determination is impacted by the support of three particular "senses" or "feelings" – sense of autonomy, sense of belonging, and sense of competency – and that the fulfillment of these feelings is part of a learners' psychological needs. Reeve (2006) explains that learners look for the satisfaction of their needs in the contexts of their daily life, including at school. This places the school as an important space for not only language learning but also for identity formation, and the development of future French speakers. While each province develops their own curriculum followed in French-minority schools, there are strong contextual commonalities between programming and objectives among all these programs in Canada.

Manitoban Context

While both English and French are Canada's official languages, only 3.4% of Manitobans speak French as a first language (Statistics Canada, 2019). Despite the existence of Article 23, education is provincially run, and Franco-Manitobans were required to submit a claim to the Supreme Court of Canada before the right to education and to run their own schools in French was granted (Laplante, 2001). Following this landmark decision, in 1994, the *Division scolaire franco-manitobaine* (DSFM) was established with the mandate of running all the French-minority schools within the province. Prior to the creation of this division, French-minority schools existed but were all run by different school divisions within the province. In the DSFM's mission statement, it is clear that language maintenance is a primary goal, since the division strives to ensure the fulfilment of each student who will be able to contribute now and in the future to the Franco-Manitoban community[3] (*Division scolaire franco-manitobaine*, 2022). Within the province, the DSFM or French-minority schools teach all subject matters in French. While French immersion schools and English schools within the province are grouped together in school divisions (6 for the city of Winnipeg and 31 for rural Manitoba), French-minority schools, no matter their location, belong to and are run by the DSFM. Today, the DSFM has 24 schools within the province and recruitment for this study was open to teachers from all those 24 schools.

[3] Full Mission Statement in French: « *Assurer l'épanouissement de chaque apprenante et apprenant dans une perspective d'inclusion et de respect au profit de la communauté franco-manitobaine d'aujourd'hui et de demain* ». (*Division scolaire franco-manitobaine*, 2022)

Nova Scotian Context

While Nova Scotia's official language is English, like Manitoba, 3.4% of its population indicate that they regularly speak French at home (Statistics Canada, 2019). The Acadian and Francophone families living throughout the province, primarily located in areas strongly linked to the history of the Acadian community and to Francophone immigration to the province, have had varying access to French-language education throughout the province's history. Prior to 1981, there were "*écoles bilingues*[4]" or "*écoles acadiennes*[5]" located through the province's Acadian and Francophone communities. In 1981, the Province of Nova Scotia adopted Bill 64, an amendment to the *Education Act of Nova Scotia*. This amendment conferred legal status to the "*écoles acadiennes*" where Acadian and Francophone families and their children would have access to an education offered entirely in French from grades kindergarten through six as well as a specific number of courses for grades seven through twelve. These schools remained primarily under the jurisdiction of local school boards until the creation of the *Conseil Scolaire Acadien Provincial* (CSAP) in 1996 with the adoption of Bill 39. This amendment groups the province's "*écoles acadiennes*" under the umbrella of a single organizational body responsible for providing educational programming and administration for the province's French-minority schools.

Since it has been established, the CSAP has grown to serve 6 417 students in twenty-two schools dispersed throughout the school board's three regions (northeast, central, and southwest). As can be seen in the CSAP's mission statement, language and cultural identity are major objectives that are brought to the forefront: "the Conseil Scolaire Acadien Provincial offers first-class education in French, taking into account its cultural mandate" (*Conseil Scolaire Acadien Provincial*, 2022). The similarities between the Francophone populations, the mission statements of both the DSFM and the CSAP as well as our similar research interests were commonalities that strengthened this research study.

Considering the language, literacy and cultural priorities of each division, our main research objective was to better understand the lived experience of teachers who worked in a minority-language context during the pandemic in Manitoba and Nova Scotia. Implicit to understanding the lived experiences of these teachers is an understanding of the specific context in which they teach, and the need for a focus on language and literacy. During the Covid-19 pandemic and the resulting periods of online learning, how did French-minority teachers teach language and literacy? How did they respond to their divisional mission statements through online learning? This article will focus on the pedagogical adaptations and success stories linked to the divisional mandates in Nova Scotia and Manitoba that focus on language, literacy and culture.

Theoretical Framework

A sociolinguistic framework was chosen for this study since it puts emphasis on communication in context (Marshall et Rossman, 2011). Sociolinguists essentially seek to

[4]Bilingual schools

[5] Acadian schools

understand the relation between language and society "including the impact of social context on the way language is used" (Tarone, 2007, p. 837). Macro sociolinguistics are especially suitable for studies on linguistic minorities since common topics such as "language maintenance, language choice and standardization" are generally of concern to them as well (Pan et al., 2020, p. 5). Language is then socially situated, language use is impacted by its social context and language can be used in research to create knowledge. Gee (2004) agrees stating, "we use language to make things significant (to give them meaning or value) in certain ways, to build significance" (p. 98). In addition to sociolinguistics, Bakhtin's theory of dialogism, wherein language and speech acts are living phenomena that develop and change through social interaction, was also drawn upon in this study (St John, 2014). Dialogism also encourages the co-construction of knowledge particularly through dialogue and collaboration (Aggarwal, 2015). The teachers who participated in this study co-constructed knowledge with us through dialogue which occurred mainly in French (Heron et al., 2018). Among bilinguals and multilinguals, translanguaging, or the use of more than one shared linguistic and cultural repertoire in natural communication, is likely to occur (Velasco & García, 2014). When conducting research in a linguistic minority setting, it is important to recognize the bilingual or plurilingual competencies of the participants and to be aware that translanguaging may occur during interviews due to researcher positionalities and accents which can impact data collection (Cormier, 2018). In reporting on the data, we strive to highlight participants' views and experiences told in their own words by respecting the social context through our sociolinguistic design.

Methods

Considering the sociolinguistic framework, a multiple case study design (Halkias et al., 2022) using semi-structured interviews to collect data was an appropriate choice because they "can enable the researchers to be open to relevant unanticipated lines of conversation generated through the discussion whilst also being guided by research themes and indicative questions formulated in advance" (Abedin et al., 2021, p. 203). While the same interview questions were used in both sites, we made sure to design several open-ended questions to allow the participants to choose the direction of their interview and to encourage natural conversation. Our own insider positionalities as former teachers and members of our respective French-minority language communities helped to create rapport, credibility and hopefully promoted "an equalized relationship between the researcher and participants", which are some of the known benefits of insider researchers (Berkovic et al., 2020, p. 1).

In favour of collecting enough data to understand teachers' challenges and successes, we decided to interview 20 teachers in each province for a total of 40 participants. Ideally, we wanted to interview participants from both rural and urban regions in the two provinces. "Stratified purposeful" sampling was used to recruit teacher participants who fit specific criteria : they had to have been teaching in their school division since March 2020 and had to have experienced the various school closures due to the pandemic (Marshall & Rossman, 2011, p. 111). In both provinces, the interest in participating in the study was high and we were both able to recruit all the participants through the initial recruitment letter sent via email to the participants after having obtained

divisional permission. Before obtaining divisional permission, the project received Ethics Board Approval from each of our universities. Table 1 describes the participants' regions as well as the subject and grade levels they taught at the time of data collection. Generalist teachers are responsible for teaching all subject matters in French, whereas specialist teachers, more common at the high school level, have a particular specialization but still teach in French. It is important to note that of the forty participants with whom interviews were completed, thirty identified themselves as language or literacy teachers. Therefore, a substantial percentage (75%) of the participants' responses reflected teaching language and literacy skills during the pandemic.

Table 1

Manitoban and Nova Scotian participants identified by pseudonym, region, subject matter(s) and grade level(s) (n = 40)

Pseudonym	**Region (rural/urban)**	**Generalist or Specialist**	**Grade level(s)**
Manitoban Participants			
Alex	Urban	Generalist	2
Ariel	Urban	French and Psychology Specialist	Secondary
Bobby	Urban	Math Specialist	Secondary
Catherine	Urban	Generalist	7
Charlotte	Urban	Music Specialist	Elementary
Élise	Rural	Generalist	6 and 7
Émile	Urban	French and Social Studies' Specialist	Secondary
Emma	Urban	Generalist	6
Emmanuelle	Urban	Generalist	6
Faiza	Urban	Physical Education Specialist	Elementary
Georges	Rural	French and Visual Arts Specialist	Secondary
Lucie	Urban	Generalist	3
Martin	Urban	Generalist	4
Mathilde	Urban	Generalist	5
Max	Urban	Physical Education Specialist	Elementary
Mme Sourire	Urban	Generalist	Kindergarten
Natalie	Rural	Generalist	5
Rolo	Urban	Generalist	6
Victoria	Urban	English Specialist	Secondary
Zack	Rural	Generalist	6 – 8
Nova Scotian Participants			
Adèle	Rural	French and Social Studies' Specialist	8 – 12

Camille	Rural	French, English and Literacy Mentor	8 – 12
Carly	Urban	English Specialist	10 – 12
Claire	Urban	Oral Communications Mentor	6 and K – 6
Clara	Urban	Reading Recovery and Literacy Mentor	2 and K – 6
David	Urban	French and Social Studies' Specialist	10 – 12
Donna	Rural	Generalist	2 and 6
Emma	Rural	Generalist	2
Gertrude	Rural	Numeracy Specialist	7
Hélène	Rural	Resource Specialist	7 – 12
Josephine	Rural	Math Specialist	2 – 3
Julie	Urban	Generalist	5 – 6
Juliette	Rural	Literacy Mentor	7 - 12
Kira	Urban	Generalist	Kindergarten
Laura	Urban	French Specialist	10 – 12
Mélanie	Rural	Numeracy Specialist	7 – 8
Michel	Rural	Literacy Specialist	9
Rita	Rural	Reading Recovery and Literacy Mentor	5 and K – 6
Sarah	Rural	French and Visual Arts Specialist	8 – 12
Tessa	Rural	Resource Specialist and Literacy and Oral Communications Mentor	K – 6

Each interview was conducted by the researcher responsible for data collection in her province. The interviews were then transcribed by bilingual (French/English) research assistants, familiar with the local French accents. NVivo's digital transcribing software was used to create transcription drafts. These drafts were then read and corrected while the research assistant listened to the transcript. Data analysis started during data collection with researcher formulated notes (Galletta & Cross, 2013) and continued during virtual meetings after the data collection between both researchers to define emergent themes present across the data sets. The transcripts were then reread by the researchers and quotations were extracted "under thematic content", in this case, the successes related to language, literacy and culture identified by French-minority language teachers (Kelly et al., 2020, p. 3). Hence, three themes determined through this process were the integration of technology into language teaching, language teacher collaboration and linguistic community building with students.

To recognize and honour the teachers' voices, we chose to integrate original quotations in French with some cases of translanguaging followed by the participant's pseudonym and geographical location (MB for Manitoba and NS for Nova Scotia). Translation to English will be offered as a footnote and was done by the researchers who

are both bilingual but not official translators. This choice was intentional as it encourages readers to read the quotations in French first, recognizing the French-language skills of many readers while at the same time offering a translation that can help to confirm the reading predictions and to assist those who are unfamiliar with the language.

Findings: Language teaching during the pandemic

From the interviews that were conducted, we learned, qualitatively, that many teachers observed a noticeable regression vis-à-vis academic and social skills including competencies related to language and literacy. This phenomenon was observed most often by teachers with several years experience in a specific grade level who noted a difference between current students and those of the past. In terms of challenges teachers were still facing and will continue to face, many mentioned the regression in literacy skills, especially oral language production and fluency. This phenomenon is akin to summer language loss, which is essentially the impact of the two summer months without exposure to the French language identified in Canada among French immersion students (Bardovi-Harlig & Stringer, 2010; Mougeon & Rehner, 2015) and in other countries where children are less exposed to the language of instruction in everyday society (Fälth et al., 2019; Lawrence, 2012). Teachers reported more English use than normal and regression in reading and writing skills upon the return to in-class learning. While summer language loss is especially pertinent to language teachers, other difficulties identified aligned with teachers' experiences worldwide, such as stress (Descamps et al., 2020; Doreleyers, 2020), fatigue due to too much screen time (Boudokhane-Lima et al., 2021), lack of motivation (Dietrich et al., 2020), lack of social interaction during periods of isolation (Lassoued et al., 2020) and an increased workload (Issaieva et al., 2020) which will all likely have a continued impact on teaching moving forward.

Considering the degree and sheer amount of the difficulties identified, it could be hypothesized that the pandemic only had a negative impact on teachers and teaching. At least according to the 40 teachers who participated in this study, this does not seem to be the case. Most participants were able to identify at least one positive outcome or personal accomplishment directly related to their experience of teaching during the pandemic. In other studies, focused on teachers worldwide, certain benefits resulting from teaching during the pandemic had already been identified. For example, the natural integration of technology in teaching offers pedagogical variety while at the same time visual conferencing software allows teachers to maintain relationships with students during periods of school closures and helps to reduce the academic impact of missed schooling (Bonk, 2020; Kuhfeld et al., 2020). As well, examples of creativity and pedagogical innovation (Issaieva et al., 2020; Wagnon, 2020), the practise of "pivot pedagogy" (Schwartzman, 2020, p. 512) as a way of being ready for future possible school closures and a newfound solidarity among teachers aided by social media (Descamps et al., 2020; Dietrich et al., 2020), were other positive outcomes related to teaching during the pandemic. Our participants mentioned many of these positive outcomes as well as others that we believe are more specific to the French-minority teaching context.

The following sections will describe the themes that emerged through the analysis of teachers' self-reported moments of success and positive outcomes. The three main themes identified are integration of technology into language teaching, language teacher

collaboration and linguistic community building with students. Each theme will also be likened to a French expression about hats. This imagery was inspired by one of the Manitoban participants, Bobby, who, to motivate his students to participate in his online sessions during the first school closures in March 2020, wore a different hat everyday. The students in one class responded in kind by also wearing hats which resulted in the creation of a friendly hat competition that was memorable enough for the students to speak about it when they saw each other again the following year at school in person.

Avoir plusieurs chapeaux[6]*: Integration of technology into language teaching*

In April 2020, the provincial governments closed schools and promoted online learning during the first lockdown. Teachers, students, and parents had a limited amount of time to prepare for the virtual or distance classrooms in which they would spend the remainder of the year. Teachers were required to make an extreme shift, at the drop of a hat, from their original vision and philosophy of teaching which in some cases included the periodic use of technological tools to, in some cases, being required to teach exclusively online (Youmans, 2020). One participant described this shift by comparing teaching to hairdressing: while you may still have the scissors to cut hair, you no longer have any of the other tools that you are used to working with, you do not have your chair, you can no longer add colour, so ultimately "*ça affecte comment tu fais ton travail*[7]" (Lucie, MB). Other participants explained how they were required to not only learn how to use specific virtual classroom platforms (Boudokhane-Lima et al., 2021) but also how to integrate them efficiently and effectively in order to teach language and literacy competencies.

While this rapid shift was identified as a challenge experienced by most teachers, they also admitted that it forced them to explore new resources, new ways of presenting ideas and in some cases, these discoveries will have a lasting impact on the way they teach in the future. In terms of teaching reading, students no longer had access to classroom, school or municipal libraries which forced teachers to explore online resources that could be easily accessed by their students. A fundamental component of language and literacy instruction is providing learners with experiences that correspond to their existing knowledge and abilities in reading, writing, speaking and listening (Giasson, 2011; Tompkins et al., 2018). In terms of teaching literacy skills normally taught in-class, many teachers explained how they used specific applications or platform options to support the learning of reading and writing skills while respecting students' learning styles and needs. The breakout room option on Google Meet, Teams or Zoom was often used to replace in-class group work and cooperative learning. For example, Julie (NS) explains how she grouped students online based on their specific literacy needs while ensuring a rotation of time spent on different language skills:

> *Je faisais comme des petits groupes de lecture de compréhension. D'autres c'était pour l'écriture, d'autres c'était pour les mathématiques. Alors je choisissais, puis ça changeait comme lundi c'était lecture-écriture, mardi*

[6] To have several hats

[7] It affects how you do your work (Lucie, MB).

mathématiques, mercredi, puis je faisais des petits groupes comme, tous les deux jours c'était mathématiques ou français (Julie, NS)[8].

Another example of the integration of technology to highlight the multimodal nature of literacy was Adèle (NS) who learned about and integrated interactive notebooks using *Google Slides* and recordings of herself reading different texts to provide students an audio version. By using these instructional materials and tools, Adèle (NS) explained that she was able to provide students with what they needed academically to be successful in their virtual language classroom. To support the development of oral communication skills and provide students with the opportunity to hear, see and explore French language varieties and Francophone cultures, Adèle (NS) also included in her virtual classroom links to free, online resources of different media formats: television, film, radio, and podcasts.

The urgent beginning of the first lockdown and its required learning and integration of technology prepared teachers and learners for the provinces' second lockdown. Participants explained that while the stress of the first lockdown was overwhelming and rife with a significant level of uncertainty, their competencies and confidence in their use of technology increased and they were significantly more comfortable when schools transitioned to online learning again in May 2021. At the time of the interviews, teachers were back to in-class learning. However, in many cases, the positive learning outcomes experienced during online distance learning were now being integrated into their in-person teaching strategies. For example, Bobby (MB) indicates how he currently encourages students who are in class to use the online resources and videos he developed that are available on his website. He explains that it is especially useful for students to review the material taught in class when they are absent but also in addition to their in-class learning to ensure oral comprehension, he says: "*tu peux faire pause, rewind, pause, rewind, autant que tu veux*[9]", which is not a comprehension strategy you would normally have access to in class (Bobby, MB).

Charlotte (MB) adds that integrating technology, when pertinent, into her everyday literacy teaching is a useful multimodal resource because "*c'est très visuel, c'est, des fois très interactif*[10]" which she notes has a positive impact on student engagement in her lessons. In another example that highlights the benefits of technology for encouraging multimodal literacy teaching and learning strategies, Kira (NS) talked about her strategy of preparing everyday videos when teaching online. Her videos showed her doing different activities in and around her home such as discovering the different parts of her backyard. When she prepared these videos (with her children as her camera crew), she was mindful to use specific vocabulary and sentence structures with the goal of modelling their usage for her students. She uploaded her videos to *Class Dojo* and would also send a typed

[8] I created small reading comprehension groups. For others, it was for writing, for others it was for math. So, I would pick, and it would change Monday it was reading-writing, Tuesday math, Wednesday, and I would make the small groups every second day, it would be math or French (Julie, NS).

[9] You can press pause, rewind, pause, rewind as much as you want (Bobby, MB).

[10] It is visual and sometimes it is interactive (Charlotte, MB).

document with the targeted vocabulary and sentence structures so students could both hear and read them. She then invited her students to explore their own backyards and to describe what they saw and what they did. Parents expressed to Kira (NS) that these videos significantly helped them in assisting their children with at-home learning. Upon returning to school, Kira (NS) continued to use the outdoors as a primary context for both her literacy and numeracy teaching.

In French, the expression "*avoir plusieurs chapeaux*[11]" means that you have many professional responsibilities; that was likely always the case with teaching. While the pandemic certainly added its fair share of responsibilities to teachers, it also gave them a new hat, new strategies and tools, with which most identify a newfound ease and are likely to integrate into their language teaching moving forward. The next section will look at how language teachers supported each other and collaborated with one another to ease the burden of these newfound responsibilities.

Sortir quelque chose de son chapeau[12]: Language teacher collaboration

Even before the pandemic, many teachers in French-minority settings, including French immersion settings, reported how difficult it was to find appropriate learning resources for their students (Norquay, 2017). In many cases, they are required to create resources that are at the appropriate level for their students and that are culturally specific. While it is important to be exposed to a variety of cultural artefacts from other majority and minority Francophone populations, it is also important for the students to see themselves represented in their own learning material (Richard, 2018). The only way to do that in many cases is for teachers to create material. This constant creation of materials is felt to be one of the big differences between them and teachers who teach in a majority setting. In many ways, French-minority language teachers are required to regularly "*sortir quelque chose de leur chapeau[13]*", simply to produce the materials that pedagogically and culturally match their students' needs. The pandemic merely heightened this lack of resources, especially since many online resources exist only in English, many platforms come out first in English and students tend to choose an English interface for their technological tools because it is what is most widely used and accepted in the majority English environment in which they live.

Nevertheless, this need to search for resources is something that can bring teachers together. Max (MB) actually describes how the minority setting encourages collaboration in order to find appropriate resources:

> "*Je trouve qu'il y a plus un esprit d'équipe, peut-être, pour réussir dans un milieu minoritaire. Parce que sinon, on ne va pas trouver ce qu'on a besoin ou bien les élèves ne vont pas avoir l'appui qu'ils ont besoin. Alors, je pense*

[11] To have several hats

[12] Pull something out of one's hat/equivalent English expression: pulling a rabbit out of one's hat.

[13] Pull something out of one's hat/equivalent English expression: pulling a rabbit out of one's hat.

à cause qu'on est en milieu minoritaire, on travaille peut-être plus proche ensemble pour réussir[14]" (Max, MB).

As well, the pandemic also encouraged a stronger sense of collaboration among teachers within the same school who shared resources, online tools and teaching strategies as well as the weight and mental burden of the pandemic. As Alex (MB) puts it, "*un gros succès c'était la collaboration. Mes collègues m'ont comme sauvé la vie*[15]". The efficacy and success of collaboration was also expressed by the Nova Scotian participants. Camille (NS), a secondary French teacher who is also an oral communication mentor signaled the important collaboration shared with her school's resource teachers and teacher assistants: "*puis, il faut que je dise que ces enseignantes et aide-enseignantes ont brillé. Elles ont aidé énormément…Elles ont travaillé avec des petits groupes d'élèves. Comme d'une façon les élèves n'avions jamais eu autant d'attention un sur un*[16]". The context imposed, but also facilitated by the virtual classroom, one-on-one support that they may not have been able to experience pre-pandemic.

Social media also enabled collaboration between teachers outside of their specific school contexts. Due to the minority context that they live in, French-minority language teachers are also French/English bilinguals and in some cases multilinguals. Their language abilities are an advantage and render their participation in different circles a possibility. For example, Charlotte (MB) mentioned collaborating with other Manitoban and Québec teachers via social media as well as reinforcing an existing relationship with a colleague who teaches in the French immersion program in Alberta. For her, these online relationships, which resulted in the open sharing of strategies, are a positive outcome of the pandemic because "*c'est quelque chose que je peux continuer à ajouter à mon enseignement, alors ce n'est pas quelque chose que j'ai juste eu à utiliser l'année passée, mais qui peut continuer à améliorer mon programme*[17]" (Charlotte, MB). Moreover, Julie (NS), a grade six teacher in an urban Nova Scotian school, described how collaborating with teachers from a different school to create resources and activities helped to alleviate feelings of both stress and isolation:

[14] I find that there is more of a sense of team spirit, maybe, to succeed in a minority environment. Because, without that, we would not be able to find what we need, or the students would not receive the support they need. So, I think that because we are in a minority environment, we work maybe closer together to succeed (Max, MB).

[15] A big success was collaboration. My colleagues, like, saved my life (Alex, MB).

[16] And, I have to say that these teachers and teachers' aids shone. They helped enormously…They worked with students in small groups. In a way, the students never had such one-on-one attention before (Camille, NS).

[17] It is something that I can continue to add to my teaching, so it's not just something that I used last year, but something that can continue to improve my program (Charlotte, MB).

> "*Puis on s'est mis les quatre de nous autres ensemble, puis on a fait des PowerPoints, puis on a fait toutes des leçons en ligne, mais on s'est divisé la tâche, puis ça vraiment, vraiment aidé parce que je me sentais moins seule…ça nous a sauvé du temps, sauvé du stress*[18]".

Creating resources has the benefit and reward of meeting students' specific needs. When teachers share their creativity with others, they are essentially opening up the possibilities for improved teaching and learning outside the walls of their own classroom. Now, with online collaboration made easier due to technological tools used more frequently, teachers can share their success stories worldwide. The following theme will explore how language and literacy teachers continued to build community with their students through online learning.

Le tour du chapeau[19]*: Linguistic community building with students*

We have already identified two positive outcomes resulting from the pandemic: the personal gains in technological integration and the strengthened sense of collaboration among teachers. This third and final positive outcome is more related to students and completes our pandemic teaching hat trick. The origin of the expression "hat trick" or "*le tour du chapeau*" is Canadian and came about when hat shop owners in Montreal and Toronto would give a hat to players who scored three goals in one hockey match played at home (Kreiser, 2017). In modern-day hockey, fans throw hats onto the ice to celebrate the achievement of a player who scores three goals in one home game. Many teachers described the palatable happiness among the students when they returned to school and were able to see their friends again. One teacher equated this return to "*le réveillon sur des stéroïdes*[20]", a traditional Francophone family gathering (Georges, MB).

Identity formation and positive experiences with the French language are important factors in the maintenance of the French language, as shown by many researchers specialized in French-minority education (Bourgeois et al., 2009; Landry et al., 2010; Pilote & Magnan, 2012). The creation of a learning environment in which language learners feel accepted and a sense of belonging is particularly important in a minority language because, as research confirms, it is with teachers where students live the most contacts and experiences with the French language (Landry et al., 2010; Boudreau, Deveau & Dallaire, 2009). However, it must be noted that it is not the quantity of these language experiences that is important but more so their quality. The third theme that emerged from participants' descriptions – creating a learning environment in which students feel safe and accepted, corresponds directly to one of the central elements of personal autonomization experiences – a sense of belonging (Landry, et al., 2005).

[18] The four of us got together and we prepared PowerPoints and online lesson plans, but we divided the tasks and it really, really helped because I felt less alone…it saved time and it saved us from feeling stressed (Julie, NS).

[19] Hat trick.

[20] The *Réveillon* (Christmas gathering) on steroids (Georges, MB).

Removing the home game advantage or in-school learning has had an impact on teachers and students and on linguistic identity so important to develop and reinforce at school. Teachers noted that community building and identity construction have been hampered by pandemic regulations such as cohorts, the cancelation of extracurricular activities, whole-school gatherings in the gym, to name only a few. One teacher even noted that Francophone family gatherings were not permitted during the pandemic and as such, students are simply less exposed to French in and outside of school. While this will remain an ongoing challenge, during online learning and afterwards, teachers developed many strategies to continue building community among and with their students and to present them with positive, meaningful experiences in French.

Teachers in both provinces underlined the priority they placed on creating a virtual classroom environment and activities through which they could facilitate the creation of connections with and between students. While teaching her kindergarten class, Kira (NS) explained that she focused primarily on creating a sense of belonging in her virtual classroom while providing her students with experiences during which they could explore and use the French language, especially during the first lockdown:

> "*Mais la première fois, c'était plus pour socialiser, se voir bien-être et santé mentale. Tu faisais des petites chasses au trésor dans la maison et comme trouver quelque chose qui peut présenter leur chien, leur chat. En tout cas, ils parlaient en français, et c'était bien* [21]".

Another example is Martin (MB) who presented a new French song during snack time and continued this practice when moving to online learning. Every morning, he asked the students which songs they preferred "*juste pour pouvoir parler à chaque élève*[22]" (Martin, MB) to encourage oral language production and engagement. Next, in adapting her reading activity where she would normally invite parents to class to read in French to her students, Mme Sourire (MB) invited parents to do so virtually and even had a grandmother from France come to read to her students. She acknowledges that the pandemic has opened up her classroom to the world because "*tous ces changements-là ont fait que maintenant, c'est une possibilité d'avoir quelqu'un de partout dans le monde qui vienne dans ma salle de classe*[23]" (Mme Sourire, MB). Similarly, Mme Rita (NS), described how she would share resources and activities with the students designed for them to learn and explore the French language while getting to know their teacher and classmates in the context of a virtual classroom:

[21] For the first lockdown, it was more for socializing, for students' well-being and mental health. We did little treasure hunts around their houses, and they would have to find something or who could present their dog or cat. In any case, they spoke in French and it was good (Kira, NS).

[22] Just to be able to speak to each student (Martin, MB).

[23] All those changes have made it now possible to have someone from around the world visit my class (Mme Sourire, MB).

> *"Le lundi, j'avais une chanson française que je leur partageais. Le mardi, j'avais une blague. Le mercredi, je mettais un vidéoclip…Le jeudi, j'ai deux chiens – j'avais deux chiens puis je mettais toujours les aventures de mes chiens…Je leur avais fait un spa day* [24]".

Mme Rita (NS) explained that her students looked forward to seeing and hearing about her dogs' daily adventures and this helped create a sense of community and supported her students' engagement in class.

As the previous examples highlighted, linguistic community building online was certainly possible. However, it is important to note that it does not perfectly emulate normal classroom interaction. Julie (NS) explores how online conversations can negatively impact linguistic security, rendering teaching and evaluating oral communication online a challenging task. She explains that the fear of being corrected for how they speak, whether by a friend or the teacher, can lead to feelings of shame and a lack of motivation to use the language. When students are in their physical classroom, they can speak informally, they can chat amongst themselves and may feel more comfortable. The intimidating "camera on me" context in the virtual classroom puts students on the spot when they are asked questions or when they want to speak. Julie (NS) explains: "*peut-être dans ton groupe tu ne te sens juste point à l'aise comme avec ton meilleur ami qui est dans l'autre salle de classe à pratiquer ta langue*[25]". To alleviate this feeling of intimidation and to encourage participation, Julie (NS) explained that using the breakout room option in *Google classroom* or making a schedule to meet with smaller groups seemed to make students feel more open to speak, thus helping them work on their oral communication skills and creating a sense of belonging through sharing and socializing with their teacher, classmates, and friends. While it is evident that online learning cannot replace in-class learning, teachers recognize certain benefits that can be used to motivate learners to develop their language and literacy competencies. The benefits of online learning can also be transposed to research collaboration which we will describe in the next section.

Virtually mediated research accomplishments

It is important to note that the findings collected and presented in this article came about through a research partnership developed at the beginning of the pandemic between two researchers who, still to this day, have never met in person. As a result, the research design, data collection, analysis and dissemination have all taken place virtually, which in and of itself is a re-imagination of how we build working relationships and how we conduct research. Since fall 2020, we have met bi-weekly via Zoom and Teams video conferencing which have enabled us to develop a relationship. Due to these informal and formal conversations, inviting one another into our homes, we have built and strengthened our

[24] Monday, I would share a French song with them. Tuesday, I would have a joke to share with them. Wednesday, I would put on a video and Thursday – I have two dogs – I would share my dogs' adventures…. I did a spa day with them, for example (Rita, NS).

[25] Maybe in your group you do not feel comfortable to speak out loud like if you are with your best friend who is in the other classroom (the other breakout room) (Julie, NS).

relationship. Without these virtual tools, it would have been impossible to develop the same level of understanding and kinship, which is evident in our work together. This is something we personally never imagined as a possibility before the pandemic.

In the same way that teachers made changes to their pedagogical practices, so did we as researchers. We have both integrated each others' research themes into our respective courses at the Faculty of Education. Due to the restrictions in both our provinces, it was necessary for all the interviews to be conducted online. As a result, we now both have experience conducting research virtually and will be able to offer virtual interviews as a possible method to reduce transportation costs, including participants living in rural areas in research and simply as an option that might interest future participants. Another research accomplishment was the broadening of our research networks. In the past, collaboration was more likely with researchers who were in our own provinces or within our own Faculties and with whom we had already developed a working relationship. This research project has broadened our research networks and forced us, in a positive way, to re-imagine the possibilities for partnership and collaboration regardless of the physical space that may separate researchers. Integrating technology into our research practices, collaborating and bringing our communities together are some of the positive outcomes of this study.

Chapeau à vous[26]: Concluding remarks

The pandemic and its aftermath have been challenging for teachers all over the world. This paper presented a snapshot in time of 40 French-minority language teachers in Manitoba and Nova Scotia who spoke about their experience of teaching during the pandemic. It is likely that teachers and students will carry with them the baggage of pandemic teaching and learning for many years to come. However, this study was able to uncover stories of success and accomplishment that also arose from teaching during the pandemic. By being pushed to teach online, language and literacy teachers developed new strategies and a newfound confidence in integrating technology into their everyday teaching. In fact, some of those strategies, developed for teaching online during the pandemic, have now been integrated by choice into their in-class learning. Moreover, examples of teacher collaboration with teachers in and outside of their school were also evident. Some teachers even used social media to connect with other teachers to share resources and the burden of teaching online. Especially important to language maintenance, French-minority teachers also focused on the importance of community building as an integral part of language development in their online teaching.

Through these success stories, we were able to see that the pandemic did not alter the important goal of language maintenance in French-minority educational programs. Language, literacy and culture were still teachers' priorities, however, how they went about teaching those skills changed to adapt to the virtual space that became their classroom. If anything, not being allowed to go to the physical space of school reinforced the importance of the school space. A space where language and literacy learning take place formally and informally, where communities are built and strengthened, where students and teachers learn together and collaborate, where individuals get together to talk, read, write and

[26] To raise your hat to someone.

communicate; a space where the French language is used. In minority language communities, if there is no space for the language to be used, the language ceases to be used. While this study confirmed that the physical school space can be maintained virtually, the virtual classroom can create new spaces for encounters and collaboration, it can maintain and strengthen a sense of community and it can even stimulate in-class learning, it cannot, however, fully simulate the rich literacy environment present in schools. Schools and contact with teachers, virtual or in-person, are "central" to language learning and maintenance (Bullock, 2020, p. 59) and teachers are essential literacy workers. So long as language and literacy learning remain the cornerstones of French-minority language education in Canada that contribute to language maintenance, schools will remain necessary spaces where language is learned, used and strengthened. Teachers in minority language educational programs know that they work towards language maintenance; it is evident in their work and in their program's mission statement. Teachers teaching in majority language programs may not realize that they are also working towards literacy maintenance; they too are essential language and literacy workers. While many of the experiences described by the teachers will be recognizable for teachers teaching in minority or majority contexts, considering the small sample size, the results are not generalizable but indicative instead of the need to conduct ongoing research in pandemic and post-pandemic teaching, especially in terms of the impacts with regards to language and literacy development across grade levels.

To the participants of this study and teachers across the world, it is with the utmost respect and encouragement that we raise our hats to you. We are optimistic and faithful that your sense of collaboration, your creative ways for integrating technology into your teaching and your sense of community building are the factors that will bring you through to the other side of the pandemic. You are essential language and literacy workers and we are extremely grateful for all that you have done by continuing to teach and promote learning during these stressful and uncertain times.

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Une recherche-développement dans le contexte pandémique : création de livres animés pour favoriser le développement de la compréhension en lecture chez les apprentis lecteurs francophones en milieu minoritaire

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Résumé

Dans l'objectif pragmatique de compenser les retards en lecture des élèves du début du primaire, retards causés par les fermetures d'école pour contenir la pandémie mondiale de la COVID-19, cette recherche-développement a permis de concevoir et de valider, par une démarche itérative, des livres animés à la façon « heure du conte ». Sept albums publiés à la maison Bouton d'or Acadie ont été médiatisés après des mises à l'essai successives dans quatorze classes de la maternelle à la deuxième année dans trois écoles francophones de la région du grand Moncton au Nouveau-Brunswick et ce, dans le contexte de la pandémie.

Mots clés

Littératie médiatique multimodale – apprentissage de la lecture – élèves du début du primaire – recherche-développement – contexte francophone minoritaire

Introduction

L'apprentissage de la langue écrite et, plus particulièrement celui de la lecture, revêt une importance fondamentale pour la suite des autres apprentissages dans le contexte scolaire. En effet, les habiletés en lecture au début du parcours scolaire sont le meilleur prédicteur de la réussite ou de l'échec scolaire et même du décrochage (Giasson, 2011, Janosz et al., 2013). Or, à partir de mars 2020, l'accès à l'école a été limité à cause de la pandémie mondiale de la COVID-19 et du confinement[1] pour la contenir. Compte tenu de l'importance des premiers apprentissages en lecture, il est primordial de compenser ce manque d'accès à l'école et de varier les activités de littératie en mettant au profit du personnel enseignant un matériel adapté aux besoins particuliers de tous les apprentis lecteurs, plus particulièrement les élèves francophones en milieu minoritaire. En effet, les rendements en lecture de ces élèves demeurent souvent significativement inférieurs à ceux

[1] Au Nouveau-Brunswick, l'année scolaire s'est terminée en mars 2020; les enfants n'ont donc eu aucun enseignement pendant les trois premiers mois du confinement. Par la suite, de septembre 2020 à juin 2021, les élèves du primaire ont eu droit à un enseignement à l'école, mais avec des périodes de retour à la maison lors des éclosions. Entre septembre 2021 et juin 2022, les enfants étaient à l'école, mais il y avait encore des interruptions dues à des éclosions ponctuelles. Durant l'automne 2021, il y a aussi eu une grève transformée en lockout des travailleuses et travailleurs de soutien qui a duré deux semaines. Le gouvernement a choisi de fermer les écoles et d'offrir l'enseignement à distance alors que les écoles auraient pu rester ouvertes.

de leurs pairs des milieux majoritaires (Conseil des ministres de l'Éducation du Canada [CMEC], 2019, voir la reproduction du tableau des résultats à la page suivante).

Tableau 1

Comparaison des résultats canadiens et provinciaux en pourcentage d'élèves ayant atteint le niveau 2 ou un niveau supérieur en lecture, selon la langue du système scolaire (CMEC, 2019, p.20)

Tableau 1.5

Comparaison des résultats canadiens et provinciaux en pourcentage d'élèves ayant atteint le niveau 2 ou un niveau supérieur en lecture, selon la langue du système scolaire

Systèmes scolaires anglophones		
Pourcentage supérieur à celui du Canada	**Pourcentage égal à celui du Canada**	**Pourcentage inférieur* à celui du Canada**
	Terre-Neuve-et-Labrador, Île-du-Prince-Édouard, Nouvelle-Écosse, Québec, Ontario, Alberta, Colombie-Britannique	Nouveau-Brunswick, Manitoba, Saskatchewan
Systèmes scolaires francophones		
Pourcentage supérieur* à celui du Canada	**Pourcentage égal à celui du Canada**	**Pourcentage inférieur* à celui du Canada**
Québec	Alberta	Nouvelle-Écosse, Nouveau-Brunswick, Ontario, Manitoba, Colombie-Britannique

L'objectif de cet article est de présenter le déroulement d'une recherche-développement qui vise à créer un matériel pédagogique novateur, c'est-à-dire des albums animés destinés à des enfants de 4 à 8 ans, qui seront lus et médiatisés,[2] selon le paradigme de la littératie médiatique multimodale. Cette littératie se définit comme étant la capacité d'une personne à comprendre et produire des messages, selon les modes linguistiques, visuels et/ou sonores en utilisant différents outils, qu'ils soient traditionnels (papier-crayon) ou numériques (Lacelle et al., 2017).

Plus spécifiquement, les objectifs poursuivis par cette recherche sont : 1) de créer des questions de prédiction, d'inférence ou de clarification des mots avec des choix de réponses auxquels seront ajoutés des indices pour donner la possibilité aux élèves de trouver la bonne réponse, imitant ainsi l'activité « l'heure du conte »; 2) d'évaluer si les questions sont pertinentes et bien adaptées aux élèves par une mise à l'essai dans des classes de maternelle, 1re et 2e années; 3) d'améliorer cette animation et de la médiatiser, c'est-à-dire de transformer les livres en application autoportante où les élèves pourront écouter l'histoire et les questions ainsi que d'y répondre.

Ces livres animés auront donc le potentiel d'influencer positivement le développement de la littératie ainsi que la compréhension en lecture puisque le personnel enseignant aura à sa disposition des animations de livres exemplaires pouvant être utilisés en grand groupe ou individuellement, et ce, durant l'enseignement à l'école ou en ligne.

[2] La programmation informatique des livres a été effectuée par le Groupe de technologie d'apprentissage de l'Université de Moncton. Cette technique de médiatisation ne sera pas décrite dans cet article.

En outre, pour favoriser la construction identitaire[3] des élèves francophones et acadiens, ces livres animés ont été créés à partir des albums publiés aux Éditions Bouton d'or Acadie.

Ainsi, la finalité de cette recherche-développement s'inscrit dans l'optique pragmatique (Van der Maren, 1995) puisqu'elle vise la résolution d'un problème immédiat et précis (Bergeron, Rousseau et Bergeron, 2021), soit les retards accumulés en littératie chez les élèves du début du primaire à cause des fermetures d'école lors de la pandémie, par la création de matériel pédagogique original pouvant être utilisé autant en classe qu'à distance. Cette étude prend appui sur les connaissances issues des recherches antérieures (Bergeron et al., 2021) et elle s'inscrit également vers le pôle de l'action puisqu'elle a pour objectif premier de développer des outils utiles pour agir positivement sur une situation locale donnée (Loiselle et Harvey, 2007).

Cette recherche-développement suit le modèle développé par Harvey et Loiselle (2009) ainsi que Bergeron, Rousseau et Dumont (2021) qui divisent ce type de recherche en cinq étapes. Selon ces auteurs, la première étape consiste à présenter l'origine de la recherche ou encore une analyse des besoins justifiant le développement du produit. Ainsi, cette étude présentera les effets négatifs des fermetures d'école dus à la pandémie sur les apprentissages en littératie.

En guise de deuxième étape, Harvey et Loiselle (2009) et Bergeron et al. (2021) recommandent de trouver des preuves ou appuis théoriques, soit un référentiel, qui justifient les choix que nous avons faits lors du développement des livres animés. À cette fin, les termes suivants seront définis : littératie médiatique multimodale, activité « l'heure du conte » en contexte numérique et l'importance de la construction identitaire en milieu francophone minoritaire canadien.

Suivra en troisième lieu la méthodologie de cette recherche-développement où la façon dont une première version du produit (Harvey et Loiselle (2009) ou prototype (Bergeron et al. 2021) a été développé et le déroulement de sa mise à l'essai sera présenté . Rendus à la quatrième étape, l'opérationnalisation ou la phase d'amélioration, cette première version a été testé et modifié à plusieurs reprises pour la peaufiner. L'écriture de cet article ainsi que la publication des livres animés consistent en la cinquième et dernière étape de la recherche-développement (Bergeron et al., 2021; Harvey et Loiselle, 2009).

Origine de la recherche

Pendant la pandémie, environ 95 % des élèves dans le monde ont vu leur éducation être perturbée, notamment en raison de la fermeture des écoles (Engzell, Frey et Verhagen, 2021). En effet, à partir de mars 2020, l'accès aux lieux physiques de l'école a été

[3] L'Association canadienne d'éducation de langue française (ACELF) définit ce concept de façon très large :

« La construction identitaire est un processus hautement dynamique au cours duquel la personne se définit et se reconnaît par sa façon de réfléchir, d'agir et de vouloir dans les contextes sociaux et les environnements dans lesquels elle évolue. » (ACELF, 2022, p.4). En milieu francophone minoritaire, il est donc primordial d'offrir aux élèves de découvrir le contexte social particulier dans lequel ils évoluent en leur offrant, par exemple, du matériel pédagogique qui reflète leur environnement, leur culture et les particularités du français acadien.

considérablement réduit afin de limiter la propagation de la COVID-19. L'apprentissage à distance a remplacé, en partie, l'école en présentiel.

Afin de mesurer les effets du premier confinement et ceux de l'enseignement à distance, Boyer et Bissonnette (2021) ont analysé les résultats de 19 études. Selon cette recension, il semble que les effets du premier confinement ont été négatifs pour les apprentissages en lecture, surtout chez les élèves du primaire (Boyer et Bissonnette, 2021). De plus, la majorité des recherches montrent que cet impact a été encore plus néfaste pour les élèves issus des milieux plus vulnérables (Engzell et al., 2021). En examinant les études qui ont mesuré les retards en lecture des élèves du début du primaire, les recherches ont estimé des retards entre un et trois mois (Boyer et Bissonnette, 2021).

Sur la base des effets observés, Dorn, Hancock, Sarakatsannis et Viruleg (2021) envisagent même que certains élèves pourraient accuser un retard de 5 à 9 mois d'apprentissage en juin 2021, et même de de 6 à 12 mois pour les élèves plus vulnérables. Les résultats de recherche de Donnelly et Patrino (2021) corroborent cette hypothèse puisque l'on observe une accentuation des pertes d'apprentissage et une augmentation des inégalités en lecture. Au Nouveau-Brunswick, où se déroule notre recherche-développement, le taux de succès pour l'épreuve de lecture en 2e année a baissé de près de 15 % (Corriveau, 2022).

Or, le rendement en lecture, surtout au début du parcours scolaire, est l'un des facteurs déterminants pour la réussite dans toutes les matières et la réussite éducative en général (Giasson, 2011; Janosz et al., 2013; Reschly, 2010). Compte tenu de l'importance de cet apprentissage et de la lecture fréquente, on peut se demander quel a été l'impact du confinement sur les activités de lecture quand les élèves ne pouvaient plus fréquenter l'école. Les élèves ont-ils été motivés à lire pendant le confinement ? Quelles ont été les solutions pédagogiques proposées par les enseignants à cet égard ?

Pour répondre à ces questions, Aziz, Susanto, Safitri, Mazida et Wijaya (2021) ont mené une recherche en Indonésie en sondant 122 élèves du primaire et 7 personnes enseignantes qui ont répondu à des questionnaires en ligne et qui ont participé à une entrevue. Selon les résultats, 39 % des élèves ont déclaré avoir lu souvent des livres imprimés et 61 % ont rarement lu ce type d'ouvrage. En ce qui a trait à la lecture en ligne, le pourcentage d'élèves qui ont déclaré s'être adonnés souvent à ce type de lecture monte à 52 % et est demeuré élevé chez ceux qui ont rarement lu, soit 48 %. Parmi les élèves qui lisent rarement, que ce soit des livres ou des sites internet, on mentionne le manque d'intérêt, le manque de livres, la paresse, les difficultés à lire et l'importance du jeu pour justifier le peu de temps accordé à cette activité.

Aziz et al. (2021) ont aussi sondé sept titulaires de classe en leur demandant de se prononcer sur plusieurs sujets dont la motivation à lire. Ces enseignants ont trouvé l'enseignement en ligne très difficile pour développer le goût de lire chez leurs élèves et ils ont déploré le fait que les parents manquaient de temps pour participer à cet effort de motivation à la lecture puisqu'ils devaient à la fois travailler à partir de la maison tout en supervisant leurs enfants.

En somme, les fermetures d'écoles ainsi que l'enseignement à distance ont eu des effets négatifs sur l'apprentissage, particulièrement sur le développement de la littératie et ce, surtout pour les élèves du début du primaire (Boyer et Bissonnette, 2021). Ceux-ci accusent un retard d'un à trois mois, retard significativement plus important chez les élèves

à risques et [ou] provenant de familles vulnérables (Engzell et al., 2021), retard qui pourrait s'accentuer avec le temps (Dorn et al., 2021). Il semble que stimuler le goût de lire a été difficile pendant la pandémie, pour toutes sortes de raisons reliées à la famille, au manque de ressources à la maison ou encore, aux difficultés reliées à l'enseignement de la littératie à distance (Aziz et al., 2021).

La présente recherche-développement vise à créer des livres animés grâce à la technologie pour les enfants de 4 à 8 ans. Sans prétendre avoir le pouvoir de rattraper les retards accumulés en littératie pendant la pandémie ni celui de donner le goût de lire à tous les élèves, il est toutefois important que le personnel enseignant puisse utiliser du matériel pédagogique adapté à leur enseignement de la lecture, particulièrement en milieu francophone minoritaire où les livres en français sont moins accessibles. Ces livres animés pourront être utilisés en ligne ou en classe et les animations seront basées sur les résultats de recherche les plus récents dans le domaine du développement de la littératie.

À cet égard, les didacticiens du français se sont penchés depuis le début du XXI^{e} siècle sur le concept de littératie médiatique multimodale. Dans la prochaine section, après avoir défini ce concept, l'apport de l'heure du conte dans le développement de la lecture sera exploré et le rôle particulier des écoles francophones en milieu minoritaire sera discuté.

Référentiel

Littératie médiatique multimodale

Depuis les années 1990, le concept de « littératie » a remplacé peu à peu le terme « alphabétisation », jugé trop restreint au savoir lire et écrire dans le simple but d'être capable de fonctionner au quotidien (Vanhulle, 2001). Depuis, la définition de la littératie est en constante évolution selon l'époque et la culture, pour englober plusieurs aspects du développement humain (Vanhulle, 2001). En effet, selon la définition de l'OCDE (2011), la littératie est la capacité de comprendre et d'utiliser des textes écrits, de réfléchir à leur propos et de s'y engager. Cette capacité devrait donc permettre à chacun de réaliser ses objectifs, de développer ses connaissances et son potentiel et de prendre une part active dans la société (OCDE, 2011). La conception contemporaine de la littératie prend aussi en compte le contexte social et culturel dans lequel sa pratique est ancrée, d'où les termes multilittératies et multimodalités (Duncum, 2004) que nous définirons plus loin.

Dans le milieu scolaire canadien, on a ajouté, à cette définition de la littératie, la communication orale : « La littératie se définit comme étant la capacité de comprendre, d'interpréter, d'évaluer et d'utiliser à bon escient l'information retrouvée dans diverses situations et divers messages, à l'écrit ou à l'oral, pour communiquer et interagir efficacement en société. » (Ministère de l'Éducation et du Développement de la petite enfance [MEDPE], 2015, p. 11). La littératie est donc plus englobante que l'alphabétisme puisqu'elle comprend aussi la communication orale et les habiletés à résoudre des problèmes, à penser de façon critique et créative, à s'ouvrir au monde et à utiliser les technologies (MEDPE, 2015). À cette liste de compétences, l'OCDE (2011) a ajouté la compréhension des textes schématiques qui comprend « […] l'information présentée sous diverses formes, entre autres, les demandes d'emploi, les fiches de paie, les horaires de transport, les cartes routières, les tableaux et les graphiques. » (p. 16).

Cette multitude de textes, combinée à un accès de plus en plus universel aux technologies de l'information dans le contexte d'une société multiculturelle et multilingue, a amené des chercheurs en didactiques des langues à discuter du concept de multilittératies (Boultif, Deraîche, Collin, Bangou, Boutin et Lacelle, 2021; Duncum, 2004). Ce concept ouvre la voie à de nouvelles perspectives plus créatrices, multimodales et multiculturelles dépassant ainsi une perspective transmissive des langues (Boultif et al., 2021). De nos jours, les modes de communication sollicitent, non seulement des compétences en lecture et en écriture selon le mode textuel traditionnel, mais aussi des habiletés de communication dans le contexte numérique où les citoyens sont en contact avec de plus en plus d'images (mode visuel), de vidéos (mode cinétique), de sons et de musique (mode sonore), de types de médias (imprimés, radio, télévision, médias sociaux, etc.) (Lacelle, Boutin et Lebrun, 2017) ainsi que le langage iconique (pictogrammes, symboles) (Miller et McVee, 2012). Ces divers modes peuvent être compris ainsi que produits de façon isolée ou complémentaire au texte écrit, ce que Lacelle et al. (2017) nomment la littératie médiatique multimodale.

> La littératie médiatique multimodale est la capacité d'une personne à mobiliser adéquatement, en contexte de communication synchrone ou asynchrone, les ressources et les compétences sémiotiques modales (ex. : mode linguistique seul) et multimodales (ex. : combinaison des modes linguistique, visuelle et sonore) les plus appropriées à la situation et au support de communication (traditionnel et [ou] numérique), à l'occasion de la réception (décodage, compréhension, interprétation et évaluation) et (ou) de la production (élaboration, création, diffusion) de tout type de messages (Lacelle et al., 2017, p. 8).

Afin d'illustrer cette littératie médiatique multimodale, prenons l'exemple d'une activité très courante en milieu scolaire : la présentation orale d'une recherche à l'aide d'un support visuel. L'accès aux outils numériques offre aux élèves d'aujourd'hui un large éventail de possibilités. En plus d'avoir accès à une information jour, celle-ci peut maintenant être lue, mais aussi entendue par le biais de vidéos ou de balados. Pour la présenter, les élèves peuvent maintenant créer des vidéos, des réseaux de concepts illustrés par des symboles, des maquettes en trois dimensions à l'aide d'imprimante trois D ainsi que d'agrémenter leur présentation d'effets sonores ou de musique.

Selon Boultif et Crettenand Pecorini (2021), qui ont effectué une synthèse des connaissances au sujet de la littératie médiatique multimodale en contexte numérique dans les cours de français, peu de recherches ont été menées dans ce domaine entre 2015 et 2020, laissant ainsi beaucoup de possibilités aux chercheurs qui s'y intéressent.

Ce type de littératie a été exploré par Pellerin (2017) dans une étude ethnographique menée auprès de 350 élèves, de la première à la quatrième année et de la septième et de la huitième année ainsi que de 20 personnes enseignantes dans un programme d'immersion française dans trois écoles situées en Alberta dans le but d'examiner les possibilités offertes par ces nouvelles technologies. Les résultats de cette étude montrent que les élèves sont capables de tirer profit des possibilités offertes par les appareils numériques, notamment par l'utilisation des fonctions relatives à l'image et au son, en améliorant leurs habiletés de

littératie. Ces technologies permettent donc aux élèves de s'exprimer d'une nouvelle manière exploitant ainsi la multimodalité (Pellerin, 2017).

Chez les enfants d'âge préscolaire, Wolfe et Flewitt (2010) ont trouvé des résultats semblables en ce qui a trait au développement de la littératie multimodale. Ces auteurs se sont demandé de quelles façons les technologies influencent les apprentissages de la littératie dans le milieu familial et en garderie. Selon l'analyse de leurs données recueillies auprès d'enfants âgés de 3 et 4 ans et des adultes qui les entourent, il semble que les enfants ayant un accès plus important à la technologie à la maison étaient plus à l'aise de l'utiliser de façon spontanée à la garderie. Wolfe et Flewitt (2010) concluent que les enfants ont besoin qu'on leur fournisse des occasions d'utiliser les technologies pour développer la littératie propre à l'univers médiatique pour les préparer à la société du savoir.

Le développement des livres animés et interactifs s'inscrit tout à fait dans la littératie multimodale médiatique puisque les enfants pourront lire et entendre l'histoire ainsi que clarifier le sens de certains mots (modes linguistique et sonore), voir les illustrations de l'album et découvrir les mots inconnus à l'aide d'images apparaissant au besoin en passant le curseur sur un mot (mode visuel) ainsi que mobiliser leurs connaissances et leur compréhension de la narration en cliquant sur les activités proposées représentées par des symboles (mode iconique) puisque les albums seront médiatisés. Ces activités seront principalement constituées de questions de compréhension, d'inférence et de clarification de certains mots, imitant ainsi une activité quotidienne dans les classes du préscolaire et du début du primaire : l'heure du conte.

L'heure du conte dans le contexte numérique

La lecture à haute voix d'albums par l'enseignant, que ce soit sous forme de lecture interactive ou simplement pour le plaisir, occupe une place de choix parmi les activités recommandées pour développer la littératie chez les élèves du préscolaire et du début du primaire (MEDPE, 2017; Montésinos-Gelet, Dupin de Saint-André et Charron, 2022). Plus spécifiquement, quand un adulte lit un album aux enfants de façon dynamique tout en interagissant avec eux, les auditeurs sont susceptibles de développer la communication orale (Turgeon, Armand, Gosselin-Lavoie et Mc Kinley, 2022), le goût de lire, le vocabulaire, la conscience de l'écrit et des textes, ainsi que la compréhension en lecture (MEDPE, 2017 ; Montésinos-Gelet, 2022 et al., 2022; Turcotte, 2007). En somme, les élèves sont susceptibles de développer l'ensemble de leurs compétences en littératie lors du « storytelling » (Maureen, van der Meij et de Jong, 2020).

En effet, en leur posant des questions ciblées et en discutant avec eux pendant la lecture à haute voix, les enseignantes permettent aux enfants de développer les microprocessus et macroprocessus ainsi que les processus d'élaboration et d'intégration, essentiels à la compréhension en lecture (Giasson, 2011; Montésinos-Gelet et al., 2022). Plus particulièrement, en présentant le titre, l'auteur, l'illustrateur, la page couverture et la quatrième de couverture, les élèves acquièrent **la conscience de l'écrit et des textes,** qui comprend l'ensemble des connaissances que les enfants acquièrent au sujet de l'écrit, comme l'orientation du texte, la différence entre image, lettre, chiffre, mot, etc. (Giasson, 2011, MEDPE, 2017). Quand les enseignantes demandent aux élèves de faire des prédictions sur l'histoire à venir, que ce soit avant ou pendant la lecture, les apprentis

lecteurs développent leur **processus d'élaboration**. De même, les questions de réaction posées à la fin de l'histoire permettent aux enfants **d'élaborer** en faisant des liens entre leurs connaissances antérieures et le texte qu'ils viennent d'entendre. Les questions de rappel de l'histoire quant à elles, travaillent les **macroprocessus** en leur demandant d'identifier les idées les plus importantes. Les questions d'inférence, qui, à l'aide d'indices, amènent les enfants à comprendre ce qui n'est pas écrit de façon explicite, favorisent le développement des **processus d'intégration** ainsi que la communication orale (Turgeon et al. 2022). Finalement, les questions de clarification des mots permettent de développer certains **microprocessus**, comme l'utilisation du contexte ou de la morphologie des mots pour trouver le sens des mots.

L'heure du conte, quand le conteur (ou l'enseignant) interagit avec l'auditoire, peut aussi s'apparenter à la « lecture interactive » (Montesinos-Gelet et al., 2022; Turgeon et al., 2022) ou « lecture partagée » (Brown, 2007 ; MEDPE, 2017). Ces activités ont connu une transformation considérable grâce aux possibilités qu'offre le numérique (Brunel et Nacelle, 2017). En effet, à la faveur d'applications, de sites web spécialisés ou même de chaines YouTube mettant en vedette des conteuses et conteurs d'histoires, les enfants qui ne savent pas encore lire de façon autonome peuvent maintenant entendre et voir des histoires animées en l'absence d'un adulte en présentiel, ce que Maureen et al. (2020) nomment le « digital storytelling ».

Pour Maureen et al. (2020), il est essentiel que les jeunes enfants développent leurs compétences en littératie numérique ou « early digital literacy » puisqu'il semble que les technologies favorisent la motivation ainsi que la compréhension en lecture des apprentis lecteurs (Boerma, Mol et Jolles, 2016). Maureen et al. (2020) ont donc mesuré le développement de la littératie de 53 élèves âgés de 5 à 6 ans qui étaient divisés en trois conditions : un groupe témoin qui recevait un enseignement basé sur des activités de littératie régulières; un premier groupe expérimental qui était exposé à une lecture à haute voix traditionnelle accompagnée d'activités structurées en lien avec l'histoire et; un deuxième groupe expérimental qui avait des conditions presque semblables au deuxième, mais avec le « digital storytelling ». Selon les évaluations effectuées au pré test et au post test qui mesuraient les habiletés des enfants en littératie précoce, les élèves des deux groupes expérimentaux se sont significativement améliorés par rapport au groupe contrôle, les résultats étant même légèrement supérieurs pour le groupe exposé au « digital storytelling ».

De façon plus globale, l'étude ethnographique de Djonov, Tseng et Lim (2021) s'est intéressée aux façons dont des enfants d'âge préscolaire s'engagent et « font du sens » lors de l'écoute ou de la lecture de la même histoire, *The Fantastic Flying Books of Mr. Morris Lessmore*, à travers un livre, un film ou une application interactive, c'est-à-dire « transmedia narratives ». Selon eux, la littératie multimodale est une forme de **littératie critique** puisque la multimodalité implique de faire des choix critiques de modes selon les normes et les contextes dans lesquels se déroule la communication.

Pour leur étude de cas, Djonov et al., (2021) ont examiné comment deux enfants, un âgé de 10 ans et l'autre de 7 ans, ont recréé de façon multimodale une partie de cette histoire à l'aide de blocs LEGO pour le premier et sous la forme d'une bande dessinée pour le second. Un de leurs objectifs était de comprendre comment se développe la littératie multimodale critique en classe avec différents outils. Djonov et al. (2021) ont observé que

ces jeunes natifs du numérique sont conscients de la multimodalité et sont capables de faire des comparaisons et des critiques pertinentes entre les différentes versions de l'histoire. Ils sont aussi capables d'utiliser les modes les plus pertinents à leur disposition pour démontrer leur compréhension de la trame narrative. Les auteurs concluent que, pour stimuler la littératie critique multimodale des jeunes apprenants, les enseignants doivent exposer leurs élèves à la littératie multimodale et les inviter à faire ce type de comparaison.

Djonov et al. (2021) soulignent aussi l'importance de prendre en compte le contexte social et culturel dans lequel sont créés les différents outils numériques. Cette considération nous amène à discuter du contexte particulier dans lequel grandissent les élèves pour lesquels nous développons ces livres animés : le milieu francophone minoritaire.

Construction identitaire dans les écoles francophones en milieu minoritaire canadien

Depuis 1982, grâce à l'adoption de l'article 23 de la Charte canadienne des droits et libertés, les parents membres de la minorité francophone de la province où ils résident, qui répondent à des critères spécifiques associés à cet article, ont le droit de faire instruire leurs enfants en français (Faucher, 1999). Ce droit a permis à ces parents d'obtenir des commissions scolaires indépendantes pour gérer leurs écoles francophones en milieu minoritaire. Bien que ces écoles soient essentielles à la survie de la langue et de la culture française, il semble que la mise en œuvre de ce projet éducatif ne produise pas toujours les résultats escomptés; les compétences langagières très diversifiées des élèves, leur insécurité linguistique et la réussite scolaire sont les principaux défis auxquels sont confrontés ces écoles (Bourgeois, 2022; Cavanagh et al., 2016). En effet, malgré ses tentatives pour valoriser la vie en français en milieu minoritaire, l'école ne parvient pas toujours à contrecarrer l'assimilation des francophones à la majorité anglophone, comme en fait foi la diminution de la proportion des personnes déclarant avoir le français comme première langue parlée au pays selon les données du dernier recensement, passant de 22,2 % en 2016 à 21,4 % en 2021 (Statistique Canada, 2022). En outre, selon les données du Programme pour l'évaluation internationale des compétences des adultes (CMEC, 2021), les compétences en littératie des francophones du Nouveau-Brunswick sont significativement plus faibles de celles de la majorité anglophone.

Afin de contrecarrer les effets du milieu anglodominant, on a ajouté une mission pour les écoles francophones en milieu minoritaire : en plus de la réussite éducative, on vise aussi la construction identitaire par l'intégration de l'approche culturelle (CMEC, 2012). Or, de nouvelles réalités sociales, telles que le plus grand nombre de familles exogames, c'est-à-dire composées d'un parent francophone et d'un parent anglophone, et l'accroissement d'élèves issus de l'immigration ont amené plusieurs chercheurs à redéfinir le rôle de l'école dans la construction identitaire (Cavanagh, Cammarata et Blain, 2016).

En effet, dans ce contexte social changeant, culture et identité ne peuvent plus être considérées comme étant statiques et uniformes qui se transmettent d'un individu à l'autre; on sait maintenant que la culture et l'identité sont des phénomènes complexes et dynamiques qui se construisent au fil du temps, des expériences personnelles, et ce, en interaction avec les autres (Cavanagh et al., 2016). Dans ce contexte, l'école ne peut plus jouer un rôle d'agent de « reproduction » de la langue et de la culture, mais plutôt d'agent de « production » linguistique et culturelle (Gérin-Lajoie, 2010). Autrement dit, en prônant

non plus la survie de l'ethnie, mais celle de la francophonie diverse, le milieu éducatif se met au service de chaque élève qui peut alors choisir librement de s'engager (ou pas) en faveur de la survie de la francophonie (Cavanagh et al., 2016).

De façon concrète, Landry et al. (2005) ont appliqué le modèle de l'autodétermination du comportement langagier en milieu minoritaire. Ce modèle, inspiré de la théorie de Deci et Ryan (1985) et récemment revisité (Landry et al., 2022), vise à comprendre l'impact de trois types de vécus chez les jeunes francophones en milieu minoritaire, autonomisant, conscientisant et enculturant, et jusqu'à quel point ces vécus peuvent contrer (ou non) les effets du milieu socialisant anglodominant. Pour les fins de notre étude, nous retenons que le vécu « enculturant » est souvent déterminée par la société dans laquelle les jeunes évoluent et se définit comme étant le processus de socialisation par lequel le jeune acquiert les valeurs de la culture. En milieu minoritaire, l'école se doit de faire vivre aux élèves des expériences qui ont pour but de permettre aux élèves de s'approprier la langue et la culture francophones puisque celles-ci ont de fortes chances d'être absentes dans l'espace public ou, à tout le moins, beaucoup moins présentes.

Les livres animés, construits à partir d'albums publiés en Acadie, peuvent faire vivre ce type d'expériences « enculturantes » aux jeunes élèves francophones du Nouveau-Brunswick puisqu'ils contiennent des histoires propres au vécu des Acadiens des Maritimes, mais aussi des thématiques universelles ainsi qu'une ouverture à la diversité. En outre, les auteurs utilisent un vocabulaire riche, imagé et parfois vernaculaire permettant aux élèves d'inférer les diverses significations et de (re)découvrir leur culture riche. Ces albums peuvent donc avoir le potentiel de stimuler le développement d'une identité francophone positive chez les élèves puisqu'ils donnent une occasion de découverte de la culture francophone tout en étant ouverts aux autres cultures.

Méthodologie

Dans la section qui suit, la troisième étape de la recherche-développement soit la méthodologie utilisée pour développer notre produit sera abordée. Selon Loiselle et Harvey (2007), il importe d'adopter une démarche souple et itérative pour tester et peaufiner le produit afin qu'il réponde aux besoins des élèves et des enseignants pour qui les livres animés sont développés. De même, la posture épistémologique interprétative a été adoptée pour mieux soutenir le développement du produit et l'induction de principes issus de l'expérience de développement (Loiselle et Harvey, 2007). Cette démarche est donc qualitative afin de mettre en évidence les éléments qui a amené l'équipe de recherche[4] à faire des choix et à les réviser selon une approche inductive pendant l'opérationnalisation du produit.

Participantes et participants : considérations éthiques

Après avoir obtenu l'approbation éthique de l'université, les participants ont été recrutés sur une base volontaire en respectant la hiérarchie institutionnelle en passant d'abord par le District scolaire francophone sud qui nous a donné la permission de

[4] Je tiens à remercier les assistants de recherche, Noémie Comeau et Sébastien Cormier, pour leur engagement et leur travail rigoureux tout au long du projet.

contacter les directions d'école. Nous avons communiqué avec celles-ci par courriel. Les écoles qui ont accepté de participer nous ont mis en communication avec les titulaires de classe de la maternelle à la deuxième année. Nous avons envoyé un courriel à ces personnes. Parmi elles, 18 enseignantes réparties dans quatre écoles ont manifesté leur intérêt de participer à la recherche. Pour des raisons pratiques sur le plan de la répartition géographique et par manque de temps, seulement 14 enseignantes ont effectivement participé à la collecte des données. Elles sont réparties dans trois écoles de la grande région de Moncton au Nouveau-Brunswick, soit trois classes de maternelle, cinq classes de première année et six classes de deuxième année.

Comme la collecte des données se faisait sous la forme d'observations de l'ensemble de la classe et non de chaque élève, il n'était donc pas nécessaire d'obtenir le consentement de chaque parent pour chaque enfant. De plus, le déroulement régulier de la classe était préservé puisque la vérification du développement des livres animés se faisait sous la forme de l'activité « l'heure du conte », bien connu des élèves puisque c'est une activité quotidienne pour la majorité des classes. Ce conte a été animé par un assistant de recherche au lieu de l'enseignante titulaire et la présence de deux observateurs n'a pas perturbé les enfants.

Le consentement des élèves a donc été implicite; nous avons expliqué les objectifs et le déroulement de la recherche aux parents et seuls ceux qui ne désiraient pas que leur enfant participe à la recherche devaient communiquer par courriel ou par téléphone avec l'enseignante. Dans un tel cas, nous n'aurions pas observé les comportements de ces élèves. Or aucun parent ne s'est opposé à la participation de son enfant. Le formulaire de consentement libre et éclairé a été signé par les titulaires de classe à qui nous avons demandé leur avis critique au sujet de l'animation des livres.

Comme la collecte des données s'est déroulée en pleine pandémie, nous avons suivi les mesures sanitaires mises en place dans les écoles soit le port du masque en tout temps, incluant la personne qui lisait et animait l'album, la présentation de nos preuves vaccinales et la signature du registre des visiteurs à l'entrée de l'école et pour chaque classe visitée.

Choix de livres

Le choix des livres s'est effectué à la maison d'édition Bouton d'or Acadie, seul éditeur qui se spécialise en littérature jeunesse au Canada atlantique. Nous avons choisi sept albums illustrés destinés à des enfants de 4 à 8 ans, publiés récemment et [ou] n'ayant pas beaucoup circulé dans les écoles. Parmi les sept livres choisis, six ont été publiés entre 2016 et 2021. Un seul était plus ancien, Tout-Plein-d'Idées, publié en 2011, mais qui était moins populaire dans les écoles au moment de sa sortie. La liste des livres se trouve à l'annexe A.

Une fois ces livres choisis, nous avons signé une entente avec la maison d'édition pour définir les conditions de la cession de la licence de droits de diffusion et d'utilisation de ces livres.

Développement des questions et des choix de réponses

Les questions ont été créées par des assistant.e.s de recherche, étudiant.e.s en formation initiale en éducation ayant suivi le cours *Didactique du français* dans lequel on

apprend, entre autres, à animer des albums en posant des questions de prédiction, d'inférence et de clarification des mots. Chaque personne était responsable de créer différents types de questions en imaginant trois réponses potentielles, une bonne et deux erronées, et ce, pour deux ou trois albums. Une fois cette première ébauche créée, elle était lue par un autre assistant qui faisait des suggestions de modifications. Par la suite, toute l'équipe se réunissait pour effectuer une dernière vérification avant d'aller dans les écoles.

Essais dans les écoles et collecte des données

Une fois cette première version de questions terminée et avant que celles-ci ne soient médiatisées par les programmeurs, nous avons animé ces albums de façon traditionnelle devant trois classes (une de maternelle, une de première et une de deuxième année) tout en observant et en prenant en note les réactions et les réponses des élèves dans la grille, dont un exemple se trouve à l'annexe B. Nous avons surtout soigneusement consigné les réponses que les élèves donnaient à chaque question pour vérifier si les choix de réponses potentielles que nous avions imaginées étaient pertinentes. Nous avons aussi observé les réactions des élèves lors de cette animation afin de déterminer si les questions étaient trop faciles ou trop difficiles. Nous avons également examiné si elles suscitaient la participation des élèves par leur désir d'y répondre (ou leur main levée) et par leur écoute active. De plus, après cette animation, nous avons demandé l'avis des titulaires de ces classes au sujet de l'animation créée. Elles avaient sous les yeux la planification écrite des animations et elles ont observé, tout comme nous, la réaction de leurs élèves. Elles ont également reçu un exemplaire de l'album en version papier en guise de remerciement de leur participation.

Les données étaient donc principalement issues de nos observations que nous avons d'abord consignées individuellement sur papier et mises en commun dans un document partagé sur Microsoft Teams. Les entrevues semi-dirigées avec les enseignantes avaient lieu tout de suite après l'animation, si c'était possible. Sinon, elles communiquaient avec la chercheure principale par téléphone la journée même ou le lendemain de l'animation pour répondre à ces quatre questions :

1. Quels sont les points forts de cette animation ?
2. Quels sont les aspects à améliorer ?
3. Quelles sont les questions à enlever, à ajouter ou à modifier ?
4. Avez-vous d'autres suggestions ?

Nous n'avions pas de journaux de bord, mais nous avons consigné soigneusement le calendrier de nos visites ainsi que l'évolution de nos animations et observations dans des documents Word partagés en ligne. En sélectionnant la fonction « Suivi des modifications », cela nous a permis de garder les traces du déroulement de la recherche.

Dans notre protocole de départ, nous voulions que chaque album en version papier soit testé trois fois, soit une fois par niveau, de septembre à décembre 2021, et vérifié de façon plus formelle une quatrième fois dans un des trois niveaux, selon la disponibilité des enseignantes. Or, comme cette collecte des données s'est déroulée alors que les écoles subissaient encore des éclosions de la COVID-19, et donc des fermetures, nous n'avons pas tout à fait atteint notre objectif. En effet, deux de nos visites ont été annulées à la dernière minute à cause d'une éclosion du virus. En plus de ces journées perdues à cause

de la pandémie, les travailleuses et travailleurs de soutien des écoles ont subi un lockout de deux semaines, ce qui nous a privés d'autres journées de collecte de données. Nous avons donc terminé notre troisième essai pour trois albums en janvier 2022 alors que les écoles étaient en enseignement à distance à cause de la recrudescence des cas du virus dans la région de Moncton. Trois animations ont donc été faites en ligne sur la plateforme *Teams* en janvier 2022. Un des albums n'a été testé que deux fois.

Tableau 2

Calendrier des visites effectuées durant l'automne 2021 et l'hiver 2022 :

	Niveaux		
Titre des albums	**Maternelle**	**1re année**	**2e année**
Congé pour maman	8 oct.	24 sept./26 nov.[5]	24 sept.
La boite aux belles choses	3 déc.	26 nov.	26 nov.
La cabane	22 oct.	22 oct.	22 oct.
Le pêcheur et le renard	28 janv. en ligne	3 déc.	24 sept.
Petit Pico	22 oct.	8 oct.	22 oct.
Tout-plein-d'idées	24 janv. en ligne	3 déc.	3 déc.
Un petit bonheur tout	21 janv. en ligne		8 oct.

Opérationnalisation

Processus de création d'une première version des animations

Comme mentionné sommairement dans la section précédente, nous avons conçu les animations à la façon de l'heure du conte en créant différents types de questions afin de développer plusieurs processus de compréhension en lecture chez les élèves ainsi que leur conscience de l'écrit et des textes. Pour chaque question, nous essayions de trouver trois réponses plausibles puisque, les livres animés donneront aux enfants la possibilité de cliquer sur l'activité pour entendre et [ou] lire la question et les choix de réponses. Quand ils cliqueront sur un des choix de réponses, ils entendront aussi une rétroaction visant à leur donner des indices pour les aiguiller vers la bonne réponse à la façon d'une lecture interactive indiciaire (Turgeon et al., 2022).

Voici quelques exemples de première version de questions que nous avions créées. Pour chaque album, il y avait une question de prédiction après la lecture du titre, de l'autrice ou de l'auteur, de l'illustratrice ou de l'illustrateur et de la quatrième de couverture. Voici l'exemple pour l'album *Congé pour maman* :

[5] Nous avons lu ce livre deux fois le 24 septembre dans une école où les élèves connaissaient déjà l'histoire. Il nous a donc été impossible de vraiment tester nos questions de prédiction. C'est la raison pour laquelle nous avons ajouté un quatrième essai pour ce livre.

Au début de l'histoire : D'après le titre, l'image et le résumé en quatrième de couverture, que racontera cette histoire ?

- Ce sera l'histoire de Sophie et de sa maman à la plage.
- Ce sera l'histoire d'une maman en congé à la plage.
- Ce sera l'histoire de Sophie qui veut jouer à la plage sans sa maman.

Pour toutes les questions de prédiction, les enfants entendront cette rétroaction : « Bravo! Tu as fait une prédiction intéressante. Allons voir ce qui va réellement se passer. »

Figure 1. Congé pour maman – page couverture et quatrième de couverture

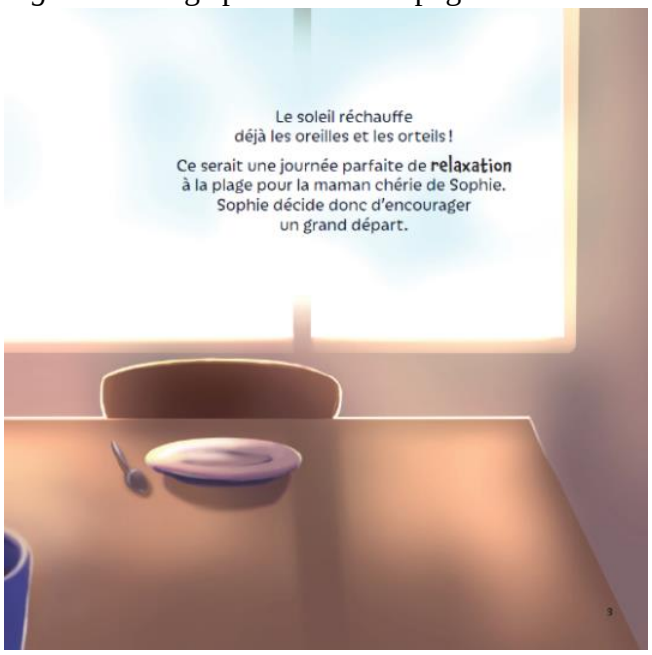
(Poirier et Léger, 2018)

Voici un exemple d'une question d'inférence, toujours pour le même album, posée à la fin de la page 3 :

En quelle saison sommes-nous ?

- Nous sommes au printemps. « Ce n'est pas tout à fait cela. Est-ce que nous allons à la plage au printemps habituellement. Essaie une autre réponse. »
- Nous sommes en été. « Bravo! Tu as bien compris que l'on va à la plage en été habituellement. »
- Nous sommes en automne. « Ce n'est pas tout à fait cela. Le texte dit ceci : Le soleil réchauffe déjà les oreilles et les orteils. Essaie une autre réponse. »

Figure 2. Congé pour maman – page 3



(Poirier et Léger, 2018, p.3)

Enfin, voici un exemple de question de clarification d'une expression imagée, employée à cinq reprises dans l'histoire chaque fois que Sophie pleurait :

Figure 3. Congé pour maman – page 11

(Poirier et Léger, 2018, p.11)

Que veut-on dire par « Première bourrasque qui passe ! » ?

- Plusieurs maringouins passent autour de Sophie. « Est-ce que tu as vu des maringouins sur l'image ? Essaie une autre réponse »

- Sophie pleure pour la première fois pendant la journée de congé de sa maman. « Bravo ! Tu as bien compris le sens de l'expression. »
- Un premier gros vent surgit à la plage. « C'est vrai qu'une bourrasque est habituellement un coup de vent. Est-ce qu'on parle de vent ici ? Essaie une autre réponse »

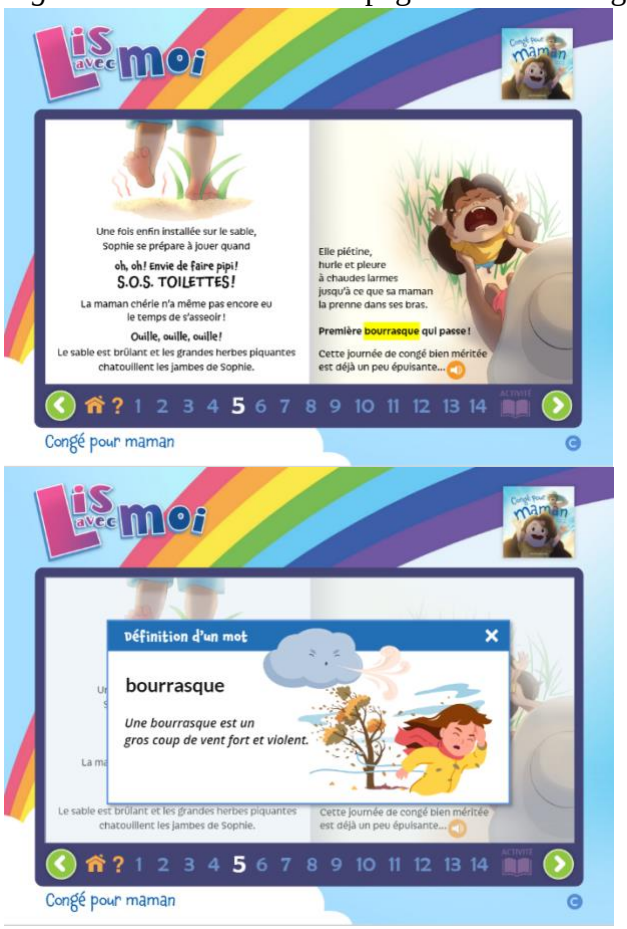
Pour qu'une animation soit réussie, il n'est pas recommandé de poser des questions à chaque page, car nous interrompons alors le rythme de la lecture, brisant ainsi le plaisir d'entendre l'histoire (MEDPE, 2017). Nous avons surtout essayé d'anticiper les difficultés des élèves pour que, par nos questions, ils puissent clarifier certains mots ou expressions et ainsi faire de bonnes inférences à l'aide des indices fournis dans nos rétroactions. Nous voulions aussi les amener à être actifs en les incitant à anticiper la suite de l'histoire.

L'équipe de recherche a donc créé les questions pour tous les albums et, à la suite des mises à l'essai dans les écoles, le produit a été amélioré.

Modifications des questions à la lumière des observations et des suggestions des enseignantes

Lors de nos observations, et selon la recommandation de plusieurs enseignantes, il nous est apparu évident qu'il fallait donner la définition de certains mots (« rubiconde » et « esquif », par exemple) pour que les enfants puissent comprendre les histoires. En effet, un des défis des élèves qui grandissent en milieu minoritaire et qui, pour certains d'entre eux de surcroît, dans une famille exogame, est le manque d'exposition à un vocabulaire en français standard (Blain, Cavanagh et Cammarata, 2018). Pour reproduire cette fonction dans notre produit médiatisé, nous avons demandé aux programmeurs de surligner certains mots en jaune dans le texte des albums. En cliquant sur ce mot, les enfants pouvaient lire, entendre et voir la définition du mot selon le paradigme de la littératie médiatique multimodale (Lacelle et al., 2017). En voici un exemple :

Figure 4. Médiatisation des pages 10 et 11 Congé pour maman



(Poirier et Léger, 2018, p.10-11; Doiron et Levesque, 2021, médiatisation)

En plus d'avoir ajouté cette fonction à nos livres animés, nous avons modifié environ la moitié de nos questions pour nos sept albums. La plupart des modifications étaient mineures. Par exemple, nous avons intégré certains énoncés des enfants dans les choix de réponses de nos questions de prédiction. D'autres modifications étaient d'ordre majeur. Nous les avons effectuées à la suite d'une ou de deux mises à l'essai; nous avons ensuite testé ces modifications lors d'animations subséquentes. En voici deux exemples.

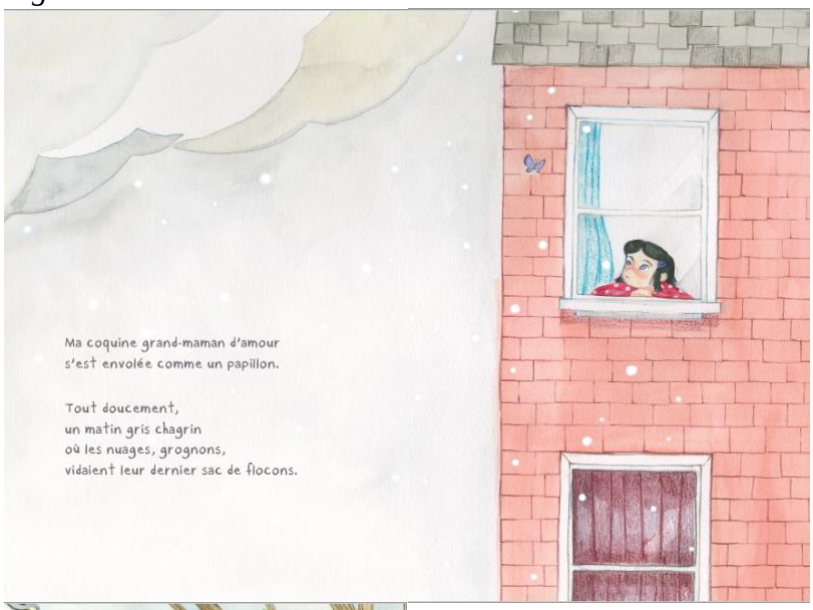
En ce qui concerne le livre *Congé pour maman*, nous avions créé la question « Que veut-on dire par "Première bourrasque qui passe !" ? » (Voir section précédente). Cette question était posée à la page 11 de l'album après que l'enfant avait rencontré cette expression pour la première fois dans l'histoire. Le récit comportait en tout cinq « bourrasques », toujours à la suite des pleurs de Sophie. Selon nos observations en classe, nous avons remarqué que les élèves n'arrivaient pas à répondre à la question. De plus, peu d'élèves levaient la main pour tenter d'y répondre. Nous avons donc suivi les suggestions des enseignantes et pris la décision, en plus de donner la définition habituelle du mot « bourrasque », de déplacer cette question à la page 21 afin de permettre aux enfants d'inférer le sens de l'expression après l'avoir rencontrée à plusieurs reprises. Nous avons aussi modifié un peu la formulation de la question. La question finale est « Que veut-on dire par le mot "bourrasque" dans cette histoire ? ». Nous avons testé ce changement et

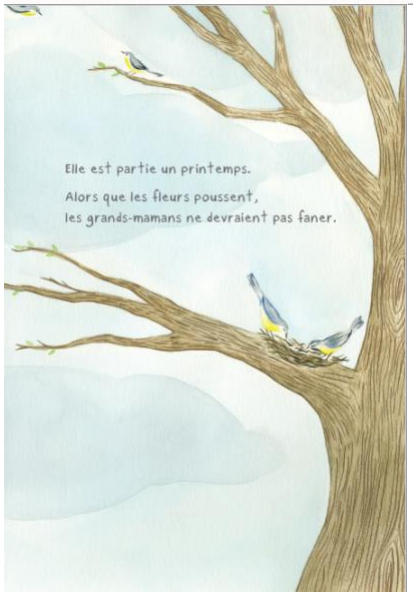
nous avons observé que plus d'élèves levaient la main et ceux-ci pouvaient faire des liens entre le mot et l'histoire plus aisément. Voici la version finale de nos choix de réponses et de la rétroaction qui ont été programmés dans ce livre animé :

- C'est une journée qui passe. *« Ce n'est pas tout à fait cela. As-tu remarqué ce qui se passe chaque fois que tu as entendu le mot « bourrasque »? Essaie une autre réponse ».*
- C'est Sophie qui pleure. *« Bravo ! Tu as bien compris le sens de l'expression imagée. »*
- Un premier gros vent surgit à la plage. *« C'est vrai qu'une bourrasque est habituellement un coup de vent, mais ici ce mot est employé de façon imagée. Essaie une autre réponse ».*

Le deuxième exemple concerne le livre *La boîte aux belles choses* qui raconte l'histoire d'une petite fille qui crée une boîte à souvenirs pour se consoler de la mort de sa grand-maman. Voici les trois premières pages de cette histoire :

Figure 5. La boîte aux belles choses





(Arbour et Lezziero, 2020, p. 1-3)

À la page 3, nous avions initialement posé la question « Que signifie le mot faner ? ». Cependant, après avoir effectué deux essais dans les classes, nous avons constaté que cette question était difficile pour les enfants. Nous l'avons donc modifiée pour qu'elle soit formulée ainsi : « Le mot *faner* signifie habituellement que la fleur est en train de mourir. Que signifie ce mot dans le texte : *Alors que les fleurs poussent, les grand-mamans ne devraient pas faner*. »? Avec cette formulation, la question comprend donc un indice (Turgeon et al., 2022) et il est maintenant plus clair que l'on cherche à inférer le sens du mot dans le contexte de l'histoire plutôt qu'une simple définition. Le troisième essai a confirmé que la question était plus claire et compréhensible pour les enfants.

Résultats et diffusion des livres

Au moment d'écrire cet article, nous avons révisé toutes nos animations sur papier et nous avons eu le temps de médiatiser deux livres sur les sept. Lorsque la médiatisation de tous les albums sera terminée, ceux-ci seront téléversés sur le portail du ministère de l'Éducation et du Développement de la petite enfance du Nouveau-Brunswick et tout le personnel enseignant de la province y aura accès. Ces livres animés pourront alors être utilisés en classe et en ligne, que ce soit lors d'une activité de groupe ou en sous-groupe. Les élèves pourront aussi utiliser ce matériel de façon autonome dans le cadre d'activités de littératie.

Par manque d'espace, il nous est impossible de présenter toutes nos animations ainsi que les transformations qu'elles ont subies à la suite des mises à l'essai. Nous croyons cependant que les deux exemples de la section précédente illustrent clairement le processus de décision lors de l'opérationnalisation du produit. Nous espérons que les chercheurs développeurs qui désirent créer ce genre d'outil pédagogique puissent s'inspirer de cette démarche itérative et qualitative très riche et unique pour développer du matériel répondant aux besoins des élèves pour qui il est destiné.

Créer un outil technologique qui s'apparente à une lecture interactive pour des apprentis lecteurs représentait un défi de taille. En effet, pour imiter l'aspect interactif de cette activité, nous nous sommes inspirés d'un certain nombre de principes présentés dans le référentiel ainsi que de nos expériences liées à l'heure du conte et des principes de développement de la littératie en milieu linguistique minoritaire. L'outil développé comporte toutefois des limites et il ne pourra jamais remplacer un être humain qui anime et ajuste son animation aux réactions des enfants qu'il a devant lui. Nous croyons cependant, à l'instar d'autres chercheurs (Djonov et al., 2021; Lacelle et al., 2017; Maureen et al., 2020), qu'il est essentiel de développer la littératie médiatique multimodale des apprentis lecteurs qui grandissent dans une société du savoir. L'outil que nous avons créé vient donc ajouter une expérience différente et riche qui permet de consolider les apprentissages de la littératie et le développement de la compréhension en lecture dans le contexte d'un enseignement en présentiel ou à distance.

Conclusion

L'objectif de cet article était de présenter le déroulement et les résultats d'une recherche-développement d'un outil pédagogique, c'est-à-dire des livres animés grâce à une technologie de pointe, à la façon de l'heure du conte. Dans une perspective pragmatique, ces livres animés ont été développés pour aider à compenser les retards en lecture observés à la suite de la fermeture des écoles et de l'enseignement à distance causés par la pandémie (Boyer et Bissonnette, 2021 ; Corriveau, 2022 ; Dorn et al., 2021). En outre, ils visaient aussi à répondre aux besoins particuliers en construction identitaire des élèves francophones du Nouveau-Brunswick grandissant en milieu minoritaire canadien plus particulièrement ceux des élèves de la maternelle à la deuxième année.

L'animation des livres a donc été créée à partir d'albums publiés à la maison Bouton d'or Acadie. Après avoir conçu différents types de questions visant à développer une variété de processus de lecture et imaginé des choix de réponses possibles, nous avons testé les animations en classe à plusieurs reprises dans le contexte de la pandémie toujours

présente, et ce, dans une perspective itérative et interprétative, typique de la recherche-développement. Nous les avons modifiées à la lumière de nos observations et des recommandations des enseignantes qui assistaient à nos animations. Par la suite, les programmeurs informatiques ont transformé nos animations en outil technologique.

Ce fut une expérience riche tant pour les assistants de recherche en formation initiale en enseignement qui ont pu acquérir une expérience concrète de l'activité l'heure du conte, que pour la chercheuse principale qui a vécu sur le terrain les aléas des restrictions sanitaires dans le milieu scolaire. La principale limite de cette démarche était le manque de temps qui nous a empêché d'effectuer plus de mises à l'essai du produit avec les élèves avant sa médiatisation. Pour compenser cette limite, nous retournerons dans les classes avec le produit médiatisé durant l'année 2022-2023 pour effectuer, au besoin, d'autres modifications, une sorte de contrôle de la qualité, avant de les publier sur le portail du ministère de l'Éducation et du Développement de la petite enfance du Nouveau-Brunswick.

Sans avoir la prétention de pouvoir compenser les retards des apprentis lecteurs dus aux fermetures d'école pour contrer la pandémie, cet outil pourra contribuer au développement d'une littératie propre à la société du savoir du XXI^{e} siècle. Afin de vérifier ce postulat, il y aurait lieu qu'une recherche future mesure les impacts de livres animés de ce type sur la compréhension en lecture et sur le développement de la littératie des apprentis lecteurs.

De plus, il est souhaité que cette littérature jeunesse acadienne médiatisée fasse vivre aux élèves une expérience « enculturante » de qualité qui contribuera à la construction identitaire des jeunes francophones grandissant en milieu minoritaire. En souhaitant également, devant la relative rareté des recherches-développements en éducation (Beaudry, Carignan et Larose (2017), que l'explicitation de cette démarche ajoutera aux connaissances de ce type de méthodologie tout en valorisant son caractère innovateur (Carignan, Beaudry et Larose, 2016).

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Biographie de l'auteur

Sylvie Blain is Full Professor of French Didactics in the Faculty of Education at the Université de Moncton. Her research examines literacy development in French minority settings in Canada. More specifically, her studies explore the learning of reading, writing, and oral communication in all subjects and in the context of digital literacy. At the Université de Montréal, she received a Jeanne-Grégoire Prize special mention for her doctoral thesis on French immersion.

Sylvie Blain est professeure titulaire et didacticienne du français à la Faculté d'éducation de l'Université de Moncton. Ses recherches portent sur le développement de la littératie dans milieux francophones minoritaires au Canada. Plus précisément, ses études explorent l'apprentissage de la lecture, de l'écriture et de la communication orale dans toutes les matières et dans le contexte de la littératie numérique. À l'Université de Montréal, elle a reçu une mention spéciale du prix Jeanne-Grégoire pour sa thèse de doctorat sur l'immersion française.

Annexe A

Voici la liste des albums :

1. *Congé pour maman* de Nicole Poirier et Isabelle Léger (2018)
2. *La boite aux belles choses* de Christine Arbour et Johanna Lezziero (2020)
3. *La cabane* de Katia Canciani et Christian Quesnel (2019)
4. *Le pêcheur et le renard* de Marianne Dumas (2016, réimpression 2019)
5. *Petit Pico* de Fabien Melanson et Natasha Pilotte (2021)
6. *Tout-plein-d'idées* de Micheline Lanthier (2011)
7. *Un petit bonheur tout rond* de Marie-Cécile Agnant et Magali Ben (2019)

Annexe B

GRILLE D'OBSERVATION DE L'ANIMATION DE L'ALBUM

Nom de l'école :
Nom de l'enseignant ou l'enseignant :
Niveau :
Date et heure de l'animation :
Nom de la personne qui anime :
Nom de la personne qui observe :

Matériel et ressources à l'apprentissage		
Titre de l'album : Congé pour maman Auteur, autrice : Nicole Poirier Illustré par : Isabelle Léger Édition Bouton d'or Acadie		
Questions posées aux élèves	**Page**	**Observations**
D'après le titre, l'image et le résumé en quatrième de couverture, que pensez-vous qu'il va se passer dans cette histoire ? Quelles sont vos prédictions ? **Choix de réponses possibles à intégrer à l'animation : (Ces choix de réponse n'étaient pas offerts aux élèves pendant l'animation en classe.)** ● Ce sera l'histoire de Sophie et de sa maman qui vont à la plage. ● Ce sera l'histoire d'une maman en congé à la plage. ● Ce sera l'histoire de Sophie qui veut jouer à la plage sans sa maman.	**Page couverture**	● Nombre de mains levées pour répondre : _____ ● Proportion d'élèves qui ont les yeux vers l'animateur et le livre : _____ ● Exemples de réponse des élèves : ● Remarques des élèves : ● Tout autre comportement indiquant l'intérêt ou le désintérêt :

En quelle saison sommes-nous dans cette histoire ? ● C'est le printemps (« Est-ce que nous allons à la plage au printemps habituellement ? Essaie une autre réponse »). ● C'est l'été (« Bravo ! Tu as bien compris la saison. »). ● C'est l'automne (« Le texte dit ceci : "*Le soleil réchauffe déjà les oreilles et les orteils !"* Essaie une autre réponse. ».	**P.3**	● Nombre de mains levées pour répondre : _____ ● Proportion d'élèves qui ont les yeux vers l'animateur et le livre : _____ ● Exemples de réponse des élèves : ● Remarques des élèves : ● Tout autre comportement indiquant l'intérêt ou le désintérêt :

Cette grille était répétée pour chaque question posée aux élèves.

Understanding Children's Drawings as Sociomaterial Assemblages of Voice during Pandemic Times

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Abstract

During the COVID-19 pandemic, schools transitioned to online learning. Utilizing sociomaterial assemblages and visual methods alongside interviews to prompt children's voices, we collected drawings from primary students at two Eastern Canadian schools to achieve a multimodal understanding of children's online learning experiences. Younger children's drawings reflected the issues with technology and lack of socialization, while older children depicted their enjoyment with online learning with the agency afforded by learning from home. We found that pedagogical creativity and innovation were essential to successful online learning. This research demonstrates the efficacy of a sociomaterial perspective on children's drawings for eliciting children's agentic voices.

Keywords

children's drawings, children's voice, online learning, sociomaterial literacies

Introduction

While discussing the significant role online learning has played in maintaining children's education during the pandemic, this article examines children's drawings and their role in informing, explicitly or implicitly, about children's needs, expectations, and wishes during the pandemic. In particular, we see children's pandemic drawings as carriers of social and cultural scenarios and, thus as having the potential to convey children's state of mind and being, as well as the state of their environment, specifically their parents, teachers and peers.

This article discusses one aspect of the data of the AdVost project – "Socially Innovative Interventions to foster and to Advance Young children's Inclusion and Agency in Society through Voice and Story" namely, children's drawings. The beginning of the project coincided with the COVID-19 pandemic in March 2020. This placed the research project in an interesting light to understand the impact on children and teachers. The impact of COVID-19 has been varied and significant, with classroom and home learning experiences varying tremendously across the globe. In looking closely at global news feeds and even school newsletters, online learning during the pandemic is being framed through discourses of loss: lost learning, lost socialization, lost time. Prompts to remedy these issues are rarely accompanied by considerations that some parts of online learning may be worth holding onto or learning from. In the face of rapid and drastic changes, parents and teachers were able to adapt in creative and innovative ways to continue students' education, and their resourceful solutions enabled children to learn and even to prosper during the pandemic.

Throughout the two years of school visits, both online and in classrooms, the observations and interviews conducted for this research project focused on ways to enhance children's voices. Children created numerous multimodal artifacts; we chose to focus on the sociomateriality of children's drawings for this paper, to understand their perspective of schooling online and their lived literacy experiences at home. We were guided by the following research questions: How do children use artifacts to reflect on the places where they play, live and learn, both online and in person? How can a sociomaterial lens enrich our understanding of children's voice as rendered in drawings?

New ways of doing research, brought about by the pandemic, impacted our collaborations with teachers, with new surging power dynamics unveiling the teachers' deep professional expertise and ability to pivot as needed to address the literacy needs of young children in times of crisis. Teachers utilized innovative methods to connect with children and foster creative learning experiences, including blending physical, material crafts and lessons with online classroom discussion, games, activities and opportunities for children's voices to shine through show and share sessions. Through the children's drawings and interviews with the children and their teachers, we find the prevalent discourses of loss surrounding the pandemic to be unexpectedly replaced by narratives of resilience, creativity and new opportunities for learning and growth.

In the next section, we will describe the motivation of this paper, which is the potential for educators to develop deeper understandings about what we can learn from children's artistic renderings and responses to COVID-19 online learning experiences. This is followed by our literature review, which discusses how children's agency and voice can be empowered through sociomaterial objects, such as children's drawings, and how visual methods blend theoretical threads to provide a closer understanding of children's lived experiences as represented in drawings. We then describe the methodology of the study, identifying the study setting and sample, and our data collection and data analysis processes. Our findings are divided into three sections: online learning during the pandemic, the social lives of children, and technology skills. We conclude with a discussion of discourses of resilience in the face of the pandemic.

Motivation - Artistic Pandemic Responses

Children in Eastern Canada faced, and continue to face, increased stressors during the COVID-19 pandemic, including "school closures, the loss of recreational opportunities, family separation or confinement, disrupted routines and experiences and loss of family income" (UNICEF, 2020). Such stressors, alongside "food insecurity, parental stress and child abuse … can become biologically embedded and negatively impact children's developing brains, immune systems and ability to thrive" (Kobor et al., 2020). Moving beyond the pandemic does not mean moving beyond the ramifications of these stressors. If anything, the pandemic has highlighted the vulnerability of Canada's children and the need for a more direct approach to build resilience in Canadian children.

Globally, children's mental health has come to the forefront during the COVID-19 pandemic; children experience "increased clinginess, fears, sleep disturbances, poor appetite, agitation, inattention, and separation disorders" (Beal, 2021). Boredom and anger are predominant feelings arising in children during the pandemic, negatively impacting

children's mental health (Idoiaga et al., 2020). During the pandemic, "many children lost their sense of normalcy and could not enjoy what constitutes a healthy development. Social interactions were curbed—they could not meet friends or hug a grandparent, and they, too, had to deal with terrible loss. Those without continual digital access or devices missed school online; further to this, children in the most vulnerable situations missed out on eating that one healthy meal per day or having a safe space or trusted adult to share their anxieties with" (Schuurman, 2021). Learning how to manage negative feelings and "re-socialize," rather than being impaired by them or allowing them to impact their peers, is essential to enhancing children's well-being. Socialization occurs in part through artistic expression, as do many other activities by which children can foster positive mental health.

Motivated by the desire to partner with students and schools in reflecting on their pandemic experiences, through visual research methods, we have included children's voices in a re-imagination of literacy practices and new possibilities of learning through artistic methods. In our research we worked alongside teachers, children and families, and prioritized children's voices and agency, making children feel heard, secure, and motivated to share in their own learning through narrative drawing during a very difficult time.

Theoretical and Methodological Orientation

In the following sections, we introduce three bodies of literature and discuss their intersections, both with each other and with our research. Understanding and prioritizing children's voices and agency comprises the backbone of our research, and examining children's drawings through a sociomaterial lens weaves together our methodologies with our theoretical perspective. Finally, we describe the previous use of visual methods, and particularly children's drawings, in education research in order to situate our study and provide context for our chosen data and research methods.

Children's Agentic Voices

This paper prioritizes the well-being of children, and is informed by literature regarding children's voice and agency. In particular, our research resounds Article 12 of the UNCRC (2009), which outlines children's rights to agency and voice. Since the implementation of this article, researchers have studied the difficulties that come with translating the concepts of children's agency and voice into practice and policy.

Voice is somewhat of a contested word, with Cook-Sather (2006) arguing that "'voice' signals having a legitimate perspective and opinion, being present and taking part, and/or having an active role." Other scholars instead draw attention to the notion of voice that goes beyond verbal expressions and considers the emotional components and other nonverbal elements of communication and meaning making (Cassidy & Robinson, 2022; Thomson 2008). Messiou (2019) uses voice to refer "to students' thoughts and emotions, as well as their actions for bringing about change." Her work attempts to give emphasis to the multiplicity of students' views, in contrast to the collectiveness of voice, and grapples with how diversity in voices can be adequately accommodated within a school setting while allowing students to feel supported. For this reason, she opts to use the term 'voices' rather than 'voice.' On the other hand, Robinson (2021) uses the term voice, referring to "…a

child's perspectives, opinions, thoughts and feelings. In addition to verbal language, 'voice' also includes, but is not limited to, written language, body language, silences, behaviour, actions, pauses in action, glances, movement and artistic expression." There are three key issues to consider when performing research relating to children's voice and agency: consultation versus participation, imbalanced power relations, and possibilities for transformation. As researchers working with children, these three key issues show the perspectives we must consider when empowering children's voice and agency.

Messiou (2019) emphasized the distinction between consultation and participation, drawing on Rudduck (2006). In this view, "consultation refers to talking with students about things that matter in school, whereas participation is about involving them in a school's work and development" (Messiou, 2019). While different from participation, consultation is an important step in the process, as these conversations can build habits of discussion between students and their teachers regarding learning in school. Robinson (2021) notes that communication through dialogue is "an attempt for all participants to be involved in the communication in a reciprocal way, leading to the development of shared understandings." Consultation allows teachers and students to embark "on dialogues in order to develop inclusive practices" (Messiou, 2019). This value sheds light on and places weight on traditionally hierarchical relationships, which can negatively affect how children interact with adults and express themselves, and attempts to recast this to encourage "the flow of more horizontal discourse" (Robinson & Taylor, 2007). However, active participation from the students is required to develop their agency. Part of recognizing children's agency is allowing them to be participating members of society, and, thus, political beings (Cassidy & Robinson, 2022).

The second issue is that power relations are unequal. As Robinson says, "We need to acknowledge that 'power inhabits all processes of social communication' and that forms of communicative power are not equally available to all" (2021). Researchers need to be considering this when determining methods of communication, as some groups have more access than others. Additionally, researchers must balance allowing children to have a voice while also acknowledging that they are not able to fully consent in the ways that adults are able to consent (Heydon et al., 2016). Thus, researchers must be knowledgeable about both children and research methods in order to effectively and ethically work with them and select appropriate methodologies (Heydon et al., 2016; Robinson, 2021).

The third issue is possibilities for transformations. This issue is concerned with "the need for listening to children's voice to extend beyond a tokenistic attempt to provide opportunities for children to voice their opinions" (Robinson, 2021). In order to address this, researchers must agree to take children's voices seriously, "with those listening being prepared for children to have 'influence' (Lundy 2007: 938-9) and for changes or transformations to be made as an outcome of the views expressed by children" (Robinson, 2021). We must recognize the capacity of children to enact change (Cassidy & Robinson, 2022). Thus, through research that applies effective consultations and participation, and ethical research methods, children's voices and agency can be elevated to achieve transformative changes, which may also contribute to social cohesion within schools and to children's well- being.

Sociomateriality

There are numerous ways for children to express their thoughts, as previously described; their voice can be oral, written, drawn, or even created (Robinson, 2021). Assemblages of voice and voice expressions pre-, during and post-pandemic shift and grow as the students learn and adapt (Ellefson & Lenters, 2022). Literacy is thus an inalienable part of understanding voice; it is the means by which we understand and form connections with each other, the world and ourselves (Ellefson & Lenters, 2022). Literacy events, which exist as a process of learning rather than a moment in time, "reconsider events to be *what is produced* through moments pregnant with affective possibilities that often elude perception" (Ellefson & Lenters, 2022). It is the literacy events during COVID-19, children's experiences of learning online, that we examine, at the intersection of verbal and material assemblages.

Multimodality and sociomateriality are two different ways of conceptualizing material's relationships to other things. On the one hand, multimodality is "…a view of text beyond the verbal, which means that other modes such as images or sounds are resources that can be 'read' and interpreted" (Lackovic & Popova, 2021). In contrast, "Sociomateriality calls for a greater consideration of matter, things, environments and spaces to understand teaching-learning acts as types of embodied and material performances. The material and social interact to create sociomaterial assemblages, units that make meanings through the interactions between their social and material parts, observed as inseparable and entwined wholes" (Lackovic & Popova, 2021). Sociomateriality, a fusion of concepts, brings into relationship the social and the material (Acton, 2017). Taking a "more-than-human" view of the world (Fenwick, 2015), sociomateriality asserts that people, places and objects "only exist in relation to each other" (Orlikowski & Scott, 2008).

Lackovic and Popova (2021) note that the material properties of architecture and design of any environment are deliberate choices, and whether intentional or not they **"**reinforce, frame, direct and afford social action and interaction" (Lackovic & Popova, 2021). Similarly, Acton (2017) examines school spaces as they connect to the students and teachers who inhabit them, identifying the key role of place in learning. Mulcahy (2013) further examines sociomateriality in the context of learning, examining how social, textual and material practices influence knowledge transfer.

Sociomateriality rises from research devoted to bringing materials back to the forefront of learning and practice, where they have faded to the background (Fenwick, 2015), combating "a general tendency to grossly underestimate materials as mere instruments to advance educational performance" (Fenwick, 2015). A sociomaterial perspective highlights the patterns and unpredictability of educational materials, and contributes to uncovering the power relations in learning, as well as intercultural learning and inclusive learning challenges (Fenwick, 2015). Additionally, sociomateriality can also point to "affirmative ways to intervene, disturb or amplify these webs" (Fenwick, 2015). Finally, sociomateriality reveals how objects become a mechanism "for sociocultural and symbolic transmission of ideologies, mythologies, and core value orientations in societies" (Lackovic & Popova, 2021).

Assemblages are groups of things that make their meaning from the way in which their constituent parts interact with one another (DeLanda, 2006). Assemblages embrace dynamism and fluidity, as each part can be arranged in differing ways (Baroutsis, 2020). Fenwick et al. (2011) argue that teaching and learning are tied to their processes, and are thus assemblages; Bennett (2010) further suggests that assemblages have agency that shapes discourse and reality in everyday life.

The current research of sociomateriality in education, as described above, indicates that schools represent social situations, and class learning cannot be separated from the social and material situation of the classroom. Class materials, understood in their social context, are sociomaterial assemblages that can be studied to uncover relationships, power dynamics, culture, and more. This provides a compelling avenue of study when considering the social situation when children are learning online within the context of their homes and availing of household materials to convey their contextual learning and understanding.

Visual Methods

Sociomateriality and visual research methods go hand-in-hand; art and crafts are key subjects of sociomaterial study. As Kumpulainen (2016) explains, "Visual methods provide possibilities for researchers and educators to understand children's voices." Visual methods allow children to use images and language to discuss their lives, and thus represent their worldview and words using additional communication forms other than words (Rose, 2016).

Visual ethnography is a method by which to study visual artifacts, which can be employed by both researchers and children, as they reflect on their creations (Kumpulainen 2016; Pink, 2007). In this perspective, voice is complicated, existing not as an objective quality or state of mind, but existing only within interactions between an individual and the collective within a sociomaterial environment. Voices are influenced and constrained by the values and rules of the community, as well as by the specific participating individuals, and by whatever resources are available to participants.

The use of images in research has a long history (Rose, 2016). In all forms of visual research methods, whether they involve videos, photos or drawings, Rose emphasizes that the researcher should "take images seriously" (2016), consider the social effects of the images, and consider their own ways of looking at the images, and how it might differ from what was intended by the photographer/artist.

Heydon et al. (2016) point out that "[t]he meaning of text is never singular, nor is it produced in a vacuum." They look at the work of Rose (2016), who "describes three sites of making meaning from text—the site of text production, the site of the text itself, and the site of viewing/reading—and states that researchers must give attention to each of these sites when trying to interpret text or understand its interpretation" (Heydon et al., 2016). In looking at Rose's work, we propose that, although teachers must give attention to these sites, reviewing the text must be multi-voiced, taking into account not only the researcher's interpretations, but also those of teachers and, most importantly, the students themselves. Kumpulainen's research (2016) points to this complexity when looking for methods to reveal children's voices. Specifically, the issues with sociomaterial objects and how

children interact with them. She considers cameras as an example: "For some children, cameras have been more than just documentation tools; cameras have become part of their play activities and experiences. As our findings imply, children's visually mediated voices are very much about creative problem-solving rather than static, simplistic communication of fixed meanings and understandings." Visual methodologies need to understand and interact with not only the visual artifact that results from research, but also "the story behind the artifact and the creative processes mediated by cultural, social, and material contexts. Here, children's visual documentation and narration illuminate the aesthetic, creative dimensions of children's voices in sociocultural contexts."

In order to gain a full picture of children's visual documentation of their online learning experiences, we utilize children's drawings, along with observation and interviews.

Children's Drawings

Drawing is both a noun, a picture someone has drawn, and a verb, the act of drawing that thing (Sunday, 2018). Children's drawings are important for both the agency of children, in creating a piece of artwork, and children's voice, enabling them to express feelings or emotions that may be difficult for them to verbalize (Moula et al., 2021). Drawing can also help children to observe things they might never have noticed otherwise (Sunday, 2018). From an educator's or parent's perspective, drawings can provide insight into children's complex emotions and personalities while they are quite young (Maxwell, 2015), and highlight what children find enjoyable or important (Ahmad, 2018). As demonstrated by Freud, through his use of drawings in psychoanalysis, children's drawings enable us to gain insight into their mental health and emotional state, including what they like and dislike about different topics (Ahmad, 2018). Drawings can elicit deep, subconscious aspects of knowing that cannot be drawn out in conversation (Maxwell, 2015; Moula et al., 2021).

The materiality of drawings, in combination with other methods, allows for rich and varied analysis of complex aspects of childhood, such as relationships to family, school, and their wider community and culture (Beausoleil & Petherick, 2015). In consideration of children's home settings and online schooling, children's drawings can illustrate the quality of their relationships (Harrison et al., 2007); drawings exist in social spaces, and, especially when elicited in a research setting, often involve their relationships to classmates and teachers (Purkarthofer, 2017). Cultural differences can also be observed in drawings, as children will tend to draw what they are familiar with in the way they have been taught to perceive it (Ahmad, 2018).

Drawing is beneficial to children of many different ages. It forms one of the first steps of communication, even prior to language acquisition (Ahmad, 2018). Young children use drawing to understand the real world by presenting, digesting and synthesizing various phenomena; drawings thus form the scaffolding for early learning (Harrison et al., 2007; Sunday, 2018). In drawings, sociomaterial objects may be shared by children to show such learning (Rose, 2016). Various scholars have suggested that the best time at which to study children's drawings is with children ages 5-11, who have the dexterity to depict their

attitudes and needs in both visual and oral form, but continue to enjoy, and are encouraged to enjoy, drawing (Harrison et al., 2007; Koppitz, 1968; Maxwell, 2015). This demographic is the focus of our research study.

Drawings have numerous benefits as research data. The open-ended form allows for the freedom of expression and self-determination not attainable through interviews or surveys with children (Ahmad, 2018; Maxwell, 2015). However, drawings should be used in combination with other methods, such as interviews, as children's interpretations of their drawings are incredibly useful, and in fact vital, to any attempt to analyze children's drawings (Maxwell, 2015; Mortimore, 1993). Previous studies have employed a variety of creative methods to collect and analyze children's drawings, which have enabled scholars to reach profound conclusions about children through their drawings.

Harrison et al. (2007), seeking to understand teacher-student relationships from the student's perspective, conducted a 30-minute interview with each student, discussing their feelings about themselves, their school and their teachers, before requesting that the student draw a picture of themselves and their teacher at school. Moula et al. (2021) first asked children to draw pictures of their "happy places," and then facilitated a discussion about the concept of well-being. They used this order, with drawing preceding discussion, so as not to interfere with subconscious or unexpected ideas that might manifest in the drawings. Beausoleil and Petherick (2015) also employed this methodology to determine children's perspectives on health and obesity in Newfoundland, Canada; they found that children's opinions were complex, incorporating experience and observations with health tenets they had heard or been taught. Ward (2018) performed an even more vigorous methodology, which adhered to sociomaterial perspectives with the collecting of drawings, photographs, visual mapping and surveys in addition to facilitating discussion with the students about their ideal playspaces.

Clearly, the literature supports the use of children's drawings as sociomaterial objects that can be studied in school settings to promote children's voice and agency, and examine their experiences and relationships. We now turn, then, to how these concepts have been applied in our methodology.

Methodology - Drawing Online Learning

For this study, teachers invited their students to create drawings of what their personal experience of learning from home entailed, using a template of a computer screen. In line with previous research recommendations, we employed visual research methods, utilizing both positive and negative prompts, as well as student and teacher interviews; furthermore, we involved children as co-participatory researchers (Clark, 2010). Key to our ethical methodology is the building of relationships over time – ensuring that we are sharing information about ourselves before requesting that the students and teachers share with us (Groundwater-Smith & Mockler, 2007). In September 2020, with ethics approvals in place, the author initially met with teachers and children in two classrooms and explained what the study was about and asked if they would like to help by sharing their ideas and drawings. The author supplied crayons, paper, glue and art supplies. With the teacher present, she explained to the children what the research study entailed, while the children

made crafts. She also shared photos of her as a child camping with her parents and objects such as a souvenir doll from Denmark given to her by her Aunt and Uncle. Each child had the opportunity to hold the doll and to ask questions about the pictures from her life, as she shared stories about them in the dialogue circle.

Following this recruitment visit, two data collections that utilized visual research methods took place during the pandemic. First, primary students were invited to draw pictures either about what they liked about learning online or what they missed about being in school within the given computer screen templates. Children aged five to seven completed these drawings on their return to school after the first lockdown in 2020. For this first data collection, the researcher was present in the classroom while the children were creating the drawings and spoke to the children while they were being composed. The teacher transcribed what the drawing was about once the child completed the drawing and brought it to her desk. During this time the researcher circled the classroom speaking with children one-on-one. The teacher was interviewed about the challenges and successes of teaching in the online environment with her kindergarten class. She also participated in a focus group discussion with the teacher inquiry group of 8 teachers across two schools.

The second data collection took place in a grade three/four split classroom during the lockdown in January 2021. The researcher conducted an online google meet interview with the children set up by the classroom teacher asking about their online learning experiences during this period. The researcher, when able to access the school, met with the teacher in the classroom and with the children to collect their drawings and to have a discussion. Once the drawings were analyzed and looked at by the research team, students were individually interviewed about their drawings. We asked questions about family composition, experiences of learning at home, what they shared online and why it was impactful as to what they missed about being physically in school or liked about online learning. The teacher was also interviewed about the process of pivoting to an online learning environment and the pedagogical practices and types of materials in which children's learning was engaged online. We were interested in finding out what the students and teachers experienced through online learning. We chose to use children's drawings as we felt that the drawings elicited the children's opinions and feelings, revealing their voices through what they drew and what they did not include in their drawings. The analysis portion of the study investigated what the students expressed through their drawings and interviews regarding their online learning experience, which referenced both the online classroom and included sociomaterial references as well as both teachers' thoughts about the drawings and online teaching experiences. Considerations for the analysis of the children's drawings included the effect online learning had on children's relationships with their peers and their teacher, the environment in which the students were learning, and the pedagogical practices and learning materials employed, as well as what all parties considered to be successful and unsuccessful about online learning.

Context of the Study

The primary classroom and the grade 3/4 classroom were located in two different schools. These two schools were situated in the most Eastern province of Canada. Both schools were situated in higher impoverished areas with higher populations of diverse and minoritized families as compared to the rest of the province. Approximately 80% of the children in both schools were dependent on the school lunch program. One school offered other support for families, such as a closet of gently used clothes and regular provision of food hampers. This school closely worked with the Association for New Canadians. The other school was situated closer to the west end of the city and availed of supports from the Rotary Club for development of school programming and the Boys and Girls Club for after school activities. Both schools had highly qualified staff with supportive administration teams. We visited with teachers every two to three weeks online, and made bi-monthly classroom visits in person, but often had daily communication with them through their school-approved twitter accounts, as they tweeted about the children's engagements in the classroom. Both teachers had a passion for teaching. Felicity (pseudonym) had been teaching for ten years and had taught kindergarten to grade six. Kirsten (pseudonym) had been teaching kindergarten for eight years and could not envision herself in any grade outside this introductory year to school for children. Both teachers were very concerned about some children's home situations during the pandemic regarding safety and food security. Both teachers made visits to children's homes to drop off supplies during the pandemic, often leaving these items on the doorsteps of families. One of the school administrators delivered donated technology and library books to families; the other administrator delivered food hampers as families reached out.

Data Analysis

For this data collection, we worked alongside teachers and administrators, thinking about how we could generate children's voices through multimodal forms with a focus on children's narratives behind their drawings. We share Kumpulainen's insightful observations (2016) that children's visual documentation and narration that voices the "aesthetic, creative dimensions of children's voices [and] sociocultural contexts" brings forth a rich perspective about their pandemic experiences with online classes. Speaking multimodally, the data sources were varied, including teacher lesson plans and journals, audiotaped focus group interviews with both children and teachers about online schooling, including video interviews with children, and teacher-created videos of children during circle time. The varied data sources provide a multimodal means for children to share their thoughts and opinions on their school and home experiences voicing a sociocultural perspective, thus furthering their voice and agency in a formative culturally responsive data collection.

The 28 kindergarten and 28 grade 3/4 drawings collected were initially analyzed by looking for aspects of sociomaterial relationally between space and objects. We considered how the placement of the people and objects that were drawn reflected the feelings and experiences of the students during online learning. For example, if the teacher was central

in the illustration, we interpreted this as showing the importance of her role throughout the duration of online learning. Another example we considered was if the student drew their friends in the space given, or included particular objects, which indicated to the viewer if the student perhaps missed their friends or was lonely. We also investigated the expressive emotions on the faces of the drawings through the students' use of lines, as this was a clue as to the social and emotional wellbeing of the child at this time.

Once the 56 drawings were analyzed, a written narrative was provided by the teachers, alongside a content analysis written by the researchers, which listed children's pictured objects, places and people. We then proceeded to group the drawings by themes identified by the researcher. The three spatial themes identified were school, home, and outdoors. This aided us in further understanding the students' experiences of online learning and what was significant for these children relating to online schooling, with a sociomaterial reading of what the drawing shared. For example, Jeffry's drawing (Figure 3) includes a playground – this object, devoid of context, connotes play, the outdoors, fun, childhood, and more. However, upon a sociomaterial reflection that takes into account the context of online schooling, we see that Jeffry's drawing conveys loneliness, sadness, and frustration with online school. This will be discussed further in our findings.

The final step of analyzing the drawings included identifying commonalities among drawings within the themes and counting how many drawings possessed these commonalities through their use of space. Commonalities for school-themed drawings were identified by counting how many students expressed their teacher being the focus, how many included their peers with them on camera, and how many included the teacher reading to the students. Home-themed commonalities included whether the student drew themselves alone or if their drawing included another child or other objects such as furniture, computers and toys. Outdoor-themed commonalities were identified by counting the number of drawings that depicted swings, a playground that was somewhere other than the student's house, the student by themselves, the student with someone else, and emotions on students' faces.

Table 1

Three spatial themes in children's online learning

Themes	**Commonalities**	**Example**
School-themed	1. Teacher as focus 2. Peers on camera 3. Teacher reading to students	Vivian's drawing (Figure 8) depicts a Zoom classroom, with her classmates' faces on screen (2)
Home-themed	1. Student alone 2. Student with another child 3. Objects	Brianna's drawing (Figure 2) depicts her inside her home with her sister (2)

Outdoor-Themed	1. Swings 2. Playground 3. Student alone 4. Student with someone else 5. Emotions	Jeffry's drawing (Figure 3) depicts him alone, outside, on a playground, with a somber expression on his face (2, 3, 5)

To check that our interpretations match the intentions of the students, and to contribute to students' agency in the data analysis process, we asked students to describe and explain their drawings to us. We also conducted individual interviews with six students in the grade 3/4 class, who further explained to us the text and what was drawn and why they included various aspects/objects in their drawings. We inquired about their least and most favourite parts regarding online learning, and we were able to discover challenges and successes when questioning these children regarding their drawings, as well as interests and hobbies that were explored and practiced during online learning. We found that our analysis had succeeded in identifying the intentions of the students. For example, we concluded from Jaxon's drawing that he was sad to play on the playground without his friends – a negative effect of online learning. When asked to explain his drawing, he said: "I didn't like at-home learning because I missed my friends and playing on the playground." This corroborates our findings.

Findings

Our analysis revealed numerous findings, which we have organized into three overarching topics: online learning during the pandemic, the social lives of children through the sociomaterial, and technology skills. In this section, we draw on numerous forms of data, including drawings, interviews, and field notes. Parent and teacher interviews inform our research and provide valuable insight into the home and school contexts in which students were learning during the pandemic. However, students' voices are privileged throughout our study.

Online Learning During the Pandemic

Online learning brought forth much uncertainty on the part of students, who did not know what to expect. When the educator provides a safe and enriching learning environment where students are not afraid to speak up and share their interests with their peers, it can foster a sense of self and security in themselves and their learning abilities. Through the student interviews, it was clear that these students were in an environment where they felt safe to express exactly how they felt about online learning, whether their experiences were positive or negative. We feel that this was dependent on the importance of building community relationships and willing support for the teacher within the school community. Children and teachers had the choice to be given pseudonyms in the data that follows.

Throughout the transition from in-person learning to online learning, students experienced many challenges. Teacher Felicity explained how she needed to thoughtfully shift her teaching to accommodate these challenges. She shared that during the second

lockdown, “While kids were for the most part very engaged, there were still issues with getting families to get the kids online… some of the parents were less engaged this time around.” This may have been because many parents were now working from home full time.

We did find the issue of devices and bandwidth in households became more problematic. Nine-year-old Sarah shared in an interview with the author that her mom was home with her while she was attending the online classroom, but she was working and going to Zoom meetings as well. Sarah explained “whenever my mom was in meetings, I would have to sneak around the house to get stuff for school in case I forgot something or recess.” Sarah, along with other students, was often left to collect objects and materials to pair with class resources, find devices needed for class and get herself online. Felicity admitted in a focus group discussion that often she did not know what resources children had in their houses for project-based learning initiatives as opposed in school, she would have materials readily available for students whose parents could not provide such things. During both lockdown periods, she made house visits to leave crafting supplies, objects and school materials at the doors of children’s homes.

Felicity felt that students with lower confidence and softer voices did benefit from the online classroom, “I did a lot of the low floor, high ceiling activity so that everybody could have something to participate in. They could answer and give their opinion” Later she shared in an interview, “We ended up doing this arts-based animal writing project where they could learn about different animals and start sharing facts, so it was a real opportunity to build confidence in some students who don’t really have a strong voice in the classroom because of other dominant personalities in here.” This was especially beneficial to Kevin, who is an ESL student in the class. Kevin started school during the lockdown from the Philippines. His parents and Felicity worked together to get him online. The opportunities for show and share worked in Kevin’s favor with his sharing of his talent for 3D construction of houses and objects. This was exemplified in his computer screen drawing (Figure 1). The opportunity to share in the virtual classroom introduced him to new classmates and friendships which began online in those early weeks before he arrived in Canada at the end of the lockdown.

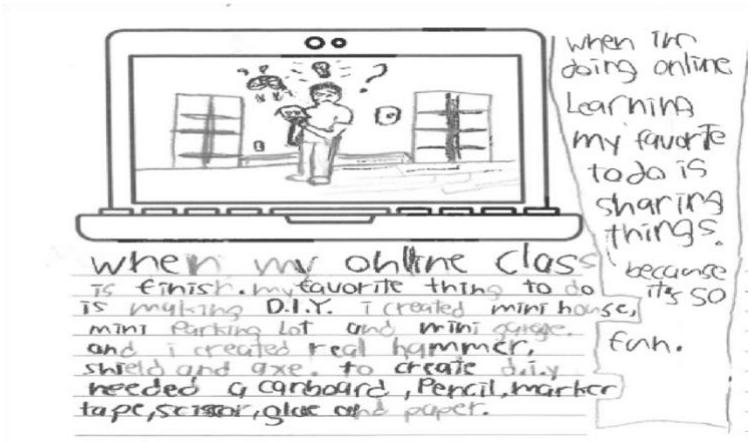

Figure 1. Kevin’s drawing

This illustrates another benefit of online learning; children were able to share their diverse cultures with a variety of materials with one another. Numerous cultures were represented in both of these classes. Kevin, starting class online in the Philippines, was able to share his culture with his classmates through the weekly show and share time on Fridays. Felicity talked about another student in the class; "One of my students was new to Canada, so a lot of times she would just bring her siblings in. She had 7 siblings!" Other students also loved sharing their home lives, Felicity explained: "A lot of the students participated - they either made a craft to show that day, or they showed something at their house […] one of my students did most of her lessons from her family's Indian restaurant. And.. so.. she brought and she showed us all kinds of interesting things around the restaurant, [such as patterned dishes, objects and pictures,] which is very cool."

Kirsten's primary class also learned about each other's cultures. "We talk about different traditions; now we're talking about Ramadan. We're sharing, and two little girls say, 'I do it. I celebrate Ramadan too. How do you celebrate it?' So, they made that little connection and then they started talking about family traditions of Ramadan and telling us stories. And instead of being the only person to share those experiences, they were sharing together." Students talked about family food and how celebrations are tailored to each family. Other students shared what they do for Easter, and talked about going to church, painting eggs, and other traditions. Kirsten shared that she had four ESL students in her class; "So they tell me about the language that they're speaking and different celebrations that they're having at home. So even if I don't know what's exactly happening, I'm like, 'Let's look it up!' So we'll get on the computer and like I'll look on YouTube or Google, and they're like 'Yeah, that's it, that's it!' Then we'll watch videos and that sort of thing to teach the other kids." In this way, through online learning, students were able to learn about each other's cultures in a personal and culturally responsive way that included children's cultural sharing through their own voice and choice of sociomaterial resources

However, the online classroom was more challenging for children in kindergarten. Kirsten recognized these challenges and used various math learning websites, puzzle sites and active activities to keep students engaged, explaining, "I had to remember how hard it was for them to sit. We had a lot of breaks […] and then we'd do a movement activity together, or a lot of online math manipulatives and that sort of thing." In numerous drawings, students expressed through their artwork the love and appreciation for their teacher, especially when she would read aloud to them. They all talked about how much they loved book circle time in our meetings with students. When asked what she drew, Bea explained in her picture it was her teacher (Kirsten) holding her book. In reading the illustration through artistic elements such as space and placement of objects, we interpreted that Bea had a positive experience with her teacher, as Kirsten's smiling face is represented front and centre in her drawing.

In our analysis of Ariyah's drawing, pictured below (Figure 2), both she and her sister faced while sitting at her computer for online learning. She drew expressions on

their faces to show that she and her sister were very unhappy or frustrated with online learning and the desk style learning that comes with computer screen viewing.

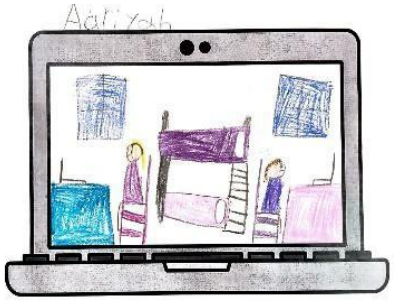

Figure 2. Ariyah's drawing

Kirsten, their teacher, discussed, in our online interview, incorporating Go-Noodle, which is an interactive dance and movement activity that can be found on YouTube. During these interactions, students would be invited to follow along with the actions of the performer on the screen. Videos included follow-along dances and challenges, where students would be instructed to avoid or collect certain materials that could be found in their homes before the end of the video. We saw Kirsten incorporate this into her online classroom "Everybody get up and we will do our little three-minute body break." For students like Ariyah, it was important to maintain engagement with others, albeit in a virtual way. Having an activity that involved moving together mimicked play in the classroom and helped the children feel connected to each other while apart, as they collaborated in the group dancing in their own home space.

Social and emotional learning was prioritized within the kindergarten classroom as well. Kirsten explains in her interview, "this year has been a lot of focus on social-emotional learning, and it's been a lot of focus on homelife and stuff because, being online, you were in their homes." In kindergarten, students do not yet possess the skills and tools they need to regulate all emotions they may be experiencing. We saw this reflected in drawings by students who expressed emotions of feeling sad or frustrated about having to be online, whether that be missing their friends or simply not enjoying online-learning. A number of students expressed sadness from missing their friends - like Jaxon

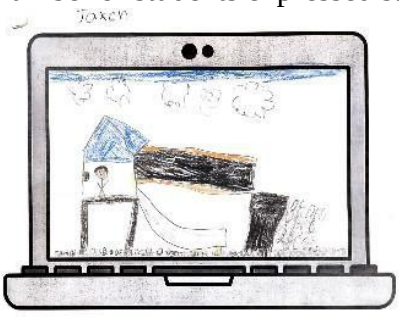

Figure 3. Jaxon's drawing

In his picture (Figure 3), Jaxon can be seen playing alone on a playset with a somber expression drawn on his face. While some students also expressed that they missed their friends, they still included their friends in their drawings; however, Jaxon did not. We did find out that Jaxon had a new baby sibling at home and his mom was quite nervous about having Jaxon around other children who may have the virus; this also impacted his attendance in school, as his mother was worried about the coronavirus infecting the newborn child. Nancy drew from a similar perspective as Jaxon (Figure 4). However, she drew with much color and a sun above her playhouse, and a tree with a climbing ladder. She is pictured with her dog named Ginger. The author had recorded in her notes that Ginger was her best friend during lockdown.

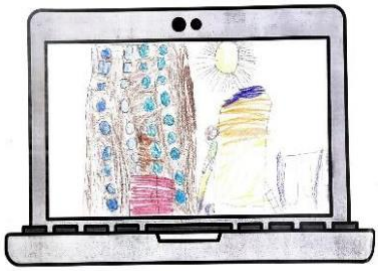

Figure 4. Nancy's drawing

Online learning was a new experience for the students and teachers in both classrooms. Some students also found online learning to be a positive experience, as it was more accessible, and they felt more comfortable talking or sharing pictures in an online classroom. However, many students faced challenges with learning in a new environment, and many lacked the material resources, skills, or support needed for lessons to make the most of online learning. Younger students also struggled with self-regulation, finding it more difficult to adapt to changes to their learning experience, and with missing their friends. Their drawings, representative experiences, and discussions revealed that the social lives of the students were heavily impacted by the transition to online learning.

The Sociomaterial of the Lives of Children

The illustrations completed by the kindergarten children expressed the longing to play with their friends and physically be with them in the classroom. Brooke expressed this by drawing her and her friends playing at the playground (Figure 5); she followed this up by saying, "I did not like at home learning because I couldn't see my friends."

Figure 5. Brooke's drawing

Through these drawings, it is important to recognize the significance of play within the kindergarten classroom, and how keenly students were aware of the lack of play during online learning. Kirsten, the kindergarten teacher, introduced scavenger hunts. These involved children sharing objects or materials that connected to their learning and the lessons. She felt parents were more on-screen and involved during this activity, and students drew and reflected on it positively. This level of participation enhanced the classroom dialogues and connections; it was often the highlight of the students' day. Jenny detailed her appreciation for scavenger hunts in her picture with her stuffed animals on a kitchen table to be shared online in her drawing (Figure 6). She explained, "I enjoyed being on the computer at home for school because I loved the scavenger hunts." Although less physical than most playground activities, this form of play allowed students a glimpse into other classmates' home lives, and materials like toys built new shared interests and new friendships with their peers. These hunts also allowed students to build better communications and connections with their teacher. Overall, our discussions with kindergarten children and their teacher, along with the students' drawings, revealed how much more isolated younger children were during online learning. Lack of in-person, play-based communication also impeded younger children who were less verbal.

Figure 6. Jenny'sdrawing

However, for older children, who had stronger communication skills, this was not the case, as they had the skills and ability to communicate online. Felicity was able to facilitate a socially rich environment using breakout rooms in the classroom. Annie, for example, enjoyed the breakout rooms because she was able to meet with her friends, share Tik Tok videos, and talk in separate, smaller groups. She also said she enjoyed these breakout rooms because there were minimal distractions from other students in her class.

Evelyn, during her interview, explained that, "I really liked how we went into breakout rooms; there was only kids in the breakout room so I could share stuff from home and not bring it to school so I could share better." Felicity also facilitated a pet parade where children could share their pet or favourite stuffy on screen. Evelyn shared her fish. On Fridays, Felicity enhanced friendship building by implementing online picnics. This began a cultural discussion around foods that children eat at home. Focusing on the benefits of smaller group instruction, students were separated into two groups on a normal online instruction day, one group in the morning and another in the afternoon. These Friday picnics allowed for all students to gather to socialize and share in discussions around their interests and hobbies, and objects in their homes. She placed great value in building relationships through the virtual picnics: "They got to see each other; it shifted the way that they related to each other, and new friendships came from it."

We saw these opportunities as empowering for student voice, as it allowed students to give their classmates a glimpse of what their lives were like at home, such as what toys they had, the objects and materials found in their homes. It also allowed students to further share identities and cultural practices that are not as easily shared or always acknowledged in classrooms. Children who would not usually socialize in the physical classroom space discovered more commonalities in the online spaces. However, this was dependent upon the ability of the students to effectively use technology to communicate.

Technology Skills

Through the students' drawings and interviews, we discovered that students struggled with the transition from physically writing assignments to having to type on a keyboard daily, as well as talking via video calls as opposed to in person. This lack of skills featured through drawings and our interviews detracted from students' ability to fully participate. The teacher did, however, use multiple websites and activities with which the students felt comfortable to implement and carry out her teaching assignments, which led to increased engagement and comfort.

Felicity included websites that were relevant and engaging for her students, specifically to teach math. In her teachings, Felicity introduced math puzzles to her students from the website SD Mysteries. Felicity explains, "SD Mysteries are just little math puzzles that we do fairly regularly in class as a warmup for our math lessons." Kayla also emphasized during her interview that she enjoyed the way her teacher did math. A number of students included YouTube in their drawings and expressed their love for the website during their interviews. Martin explained that his teacher used YouTube to help with learning and the facilitation of lessons throughout the day. For Martin, who has a learning disability, this was an important accommodation, as reflected in his drawing (Figure 7).

Figure 7. Martin's drawing

Annie and Sarah expressed their challenges with the use of keyboards compared to the ease they found with using pencil and paper. Sarah explained, "It was harder to do the writing online because I would rather write on paper, it is easier for me. Not really difficult, but easier." Annie added to this by explaining in the focus group, "I had to do my work on Chromebook which is really confusing. I usually write on paper." While learning from home, the work lives of parents would continue on, which left the student alone to navigate Google classroom or use a computer.

Discussion, as well as participation, in online learning was difficult for some students. Some students found it difficult to speak up in class, especially if multiple students did not have their microphones muted or if their household did not allow for a quiet environment. For students such as Vivian, she had to go to her parents' Indian food restaurant for the day. It was at times loud, as she explained in her drawing description (Figure 8). However, the sociomaterial assemblages that were ever-present with a busy restaurant in operation behind her as she participated in class introduced Indian food and her mom, the restaurant chef, to her classmates. Her classmates expressed their exuberance for these visits in our online focus group interview. Her friend Bella described how cool it was, saying that "it was like a TV show."

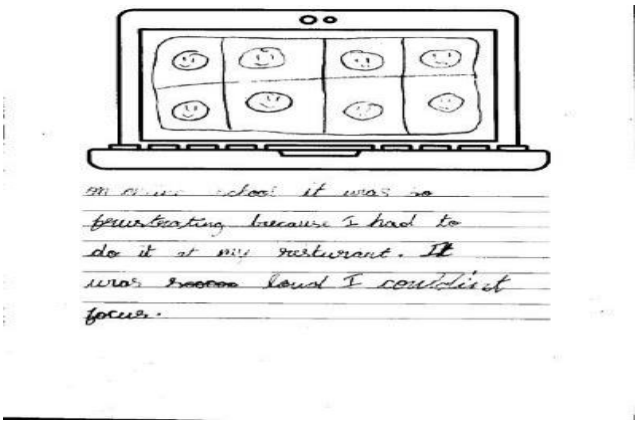

Figure 8. Vivian's drawing

For the younger children, we noted that the screens in their drawings were filled with Miss Kirsten and her yellow hair. She was central to their online experience. She also identified how helpful it was for those students whose parents were around to help them:

> But the computer stuff, at first, how to mute and unmute and all that kind of stuff, parents did help, but by the end of it, the parents were in and out of the room, or you could hear them out in the kitchen doing dishes while we were on the computer. And all the kids were turning on their mics, turning off their mics, like that little raise hand button at the bottom, and they were like… quiet and like it was – they were little superstars.

Parents also gained valuable knowledge from hearing the students' lessons; Kirsten explained, "Parents listening in the background saw what it really is like each day." It also gave parents more understanding of how to teach their own children, as they watched, unbeknownst to Kirsten, as she read picture books aloud. One parent made a comment that she usually just read the picture book, but now she would engage her children in talking about the illustrations in the book more after seeing Kirsten do this in her child's virtual classroom.

Technology also played a role in the sharing of children's sociomaterial assemblages during the pandemic; in their online classroom show and share, children had the opportunity to present their home objects and family members to their classmates on-screen. For example, Kevin, who created a mini city made of cardboard in his new home, would never have been able to bring his creations into class. However, he was able to show the entire city to his classmates through his computer's camera.

The new technology involved in the transition to online learning provided students and teachers with challenges as well as opportunities for learning. While students learned how to use new tools like Zoom, Google Classrooms, and more, teachers found online tools that could be creatively incorporated into their curriculum to increase student engagement and learning. These skills and tools will continue to be applicable to students and teachers in the future.

Discussion and Conclusion - Discourses of Resilience

This study, in which students were asked to draw their experiences with online school, concluded that students were able to reflect the quality of their relationships with family, school, and friends through their art (Harrison et al., 2007). Building on the conceptual literature regarding children's agentic voices and sociomaterial perspective, we developed a methodology that utilized visual methods. Our data was rich and varied using multimodal sources, including children's drawings, field notes, focus groups, observations, and parent, teacher and student interviews. Close examination of the children's drawings further enhanced our knowledge about their online experiences; these sociomaterial

assemblages further deepened our hearing of the students' pandemic voices. In this section, we reflect on the implications of our findings and identify the contributions of this study.

Many students indicated their longing for the ability to spend time with their friends, and much of that was represented through outdoor play, where students drew swings, slides, grass, blue sky, and sunshine. Drawings also commonly included that of their teacher, and how the relationship they had with their teacher positively impacted their learning experience, whether that be through conventional teaching, music, or reading books to the class. This reflects previous findings on the important role of teachers in children's art in schools (Purkarthofer, 2017).

In line with previous research by Ward (2018) and Ahmad (2018), we addressed the gap in the literature regarding the role of nature in children's learning (Moula et al., 2021). Students reflected their love for outdoor play through their drawings. Many students expressed this through the perspective of playing with their friends outside at the playground, before they were isolated. The lockdown presented a newly vested interest in outdoor play for society. Our discussions speak to the importance of sociomaterial assemblages, as we learned from what children's drawings pictured and what they chose to leave out. Some students, however, expressed their love for outdoor play by drawing themselves alone and acknowledging that they had missed their friends during this time. For example, Jaxon drew himself alone, because he could not play with friends in person, due to his mother's protection of a newly arrived sibling from the virus.

Our findings suggest that students missed the opportunity to socialize with their classmates and seem to be able to focus better when they are physically in the classroom. However, children also enjoyed many of the online learning activities. The new knowledge that was generated strengthened children's voices (Messiou, 2019; Robinson, 2021), as demonstrated in the multilayered sociomaterial assemblages that evolved in multimodal texts. Interviews with teachers enhance our findings when considering the drawings made by students and their contexts, such as the child's home life and relationships. Breakout rooms and online games and activities allowed students to not only socialize with their peers, but also collaborate with them during the school day to work with various materials, and at times introduce the students' home contexts. By doing this, students could exchange ideas and learn more about the material of other contexts, such as Indian restaurant food and a chef's knowledge (Lackovic & Popova, 2021; Pink, 2007). Educators also reflected on the steps they took, and continue to take, to implement the use of more technology and social media in the classroom, as students are continually using these outlets at home and have grown accustomed to using them as a result of the pandemic. Websites like YouTube can be used for instructional purposes or simply as a brain break for students when needed. Either way, such websites are a productive and useful tool that should be taken advantage of in the classroom, as they can be easily accessed and are generally free. Parent interviews demonstrated that they also benefited from online learning, as they were able to observe their children's classes and see multimodal pedagogical practices, which showed how the teacher drew contextually from children's sociomaterial lives through illustrations and narratives, thus showing parents new ways to be more active participants in their children's education.

This paper makes three major contributions to the literature. First, we provide novel data around children's pandemic experiences by interviewing students and teachers as well as analyzing children's drawings. This provides a more well-rounded perspective on online learning and fills a gap in the literature regarding sufficient triangulation in the study of children's voice and drawings (Ahmad, 2018; Harrison et al., 2007; Maxwell, 2018). Second, by consulting with children and valuing their participation equally with their teachers' participation, we identify and combat the imbalanced power dynamics inherent to early education (Heydon et al., 2016; Robinson, 2021). Third, we counter discourses of loss with discourses of resilience; children reflect not only on the challenges of online learning, but also the activities they enjoyed and relationships they built. Seeing one another's homes, objects and families through show and share, and spending time together during picnic lunches, brought students closer together despite their distance, reflecting once again the power of sociomaterial assemblages. Our research noted that through focusing on the aspects of the pandemic are important not only for salvaging the learning that was achieved during these strange few years, but also maintaining children's mental health and well-being by not dwelling on the negative (Beausoleil & Petherick, 2015; Moula et al., 2021).

Taken together, our research points to the transformative power of children's voices in education. Our elicitation of children's voice through drawings and interviews can transform our approach to post-pandemic education; it is now our responsibility to put into practice what we have learned from students and teachers (Groundwater-Smith & Mockler, 2007). In this research, visual research methods alongside a sociomaterial perspective shows how children's drawings, other artwork and material items, are intrinsically linked to their social lives. In particular, this research has brought forth deeper understanding as to how children fared during these turbulent times. Importantly, examining research data through sociomaterial assemblages augments children's voices and agency in matters that concern their lived and literate lives.

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Learning to Teach Outside the Box: Exploring Newness in Literacies Pedagogies in a Pandemic

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Abstract

This article explores the innovative lesson planning assignments of preservice teacher, Marie, as part of an alternate teaching practicum during the pandemic closure of schools in Spring 2020. Marie viewed this shift in context as an opportunity to "think outside of the box", to be creative and divert from a traditional lesson planning template. As we read the examples from Marie's lesson plan assignments, we think with posthumanist theories of entanglement, intra-actions and the producing of newness in literacies pedagogies. We share data that show the entanglements of more-than-humans and humans within the innovative lesson plan format. In exploring Marie's lesson plan redesigns and her reflections on them, we consider the ways these pedagogies were produced through the intra-actions of assignment criteria, provincial curricula, Marie's knowledge of her students, families, available learning materials, and pandemic conditions. We consider how the implications of this lesson format contribute to newness in our ways of thinking and doing as teacher educators of literacies.

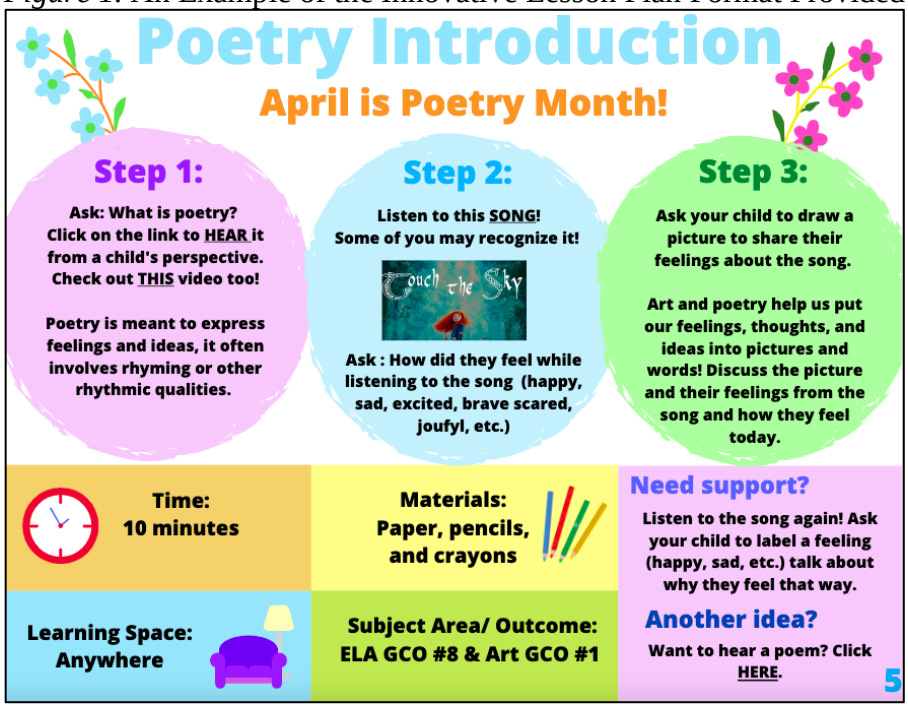
Key words: literacies pedagogies; lesson planning, preservice teacher education; pandemic; entanglements

"Wow. These lesson plans look amazing. I wasn't expecting anything like this…". Author A commented as she read preservice teacher (PST) Marie[1]'s lesson planning assignments created to support Grade 1 and 2 students and their families in experiencing poetry during the pandemic closure of schools in Spring 2020. Marie's lesson plans were unlike any other Author A had previously seen: they were in a colourful and graphic layout supported through hyperlinks and icons and invited children and parents to compose poetry together using digital and analogue media in indoor and outdoor spaces (See Figure 1). These lesson plans were assignments, part of an alternate teaching practicum designed by a Faculty of Education in rural Nova Scotia, Canada when the pandemic prevented working in schools. In a written reflection on her lesson planning experiences, Marie explained that she viewed the alternate practicum lesson planning as opportunities

[1] Names are pseudonyms.

for her to "be creative and think outside the box". Author A wrote to Authors B and C saying, "As I have been marking the practicum tasks, I keep wondering 'what can we [our elementary team of teacher educators] learn from… the students…?' I think that there are some learning opportunities that are specific to the pandemic situation, but I also wonder if there are some more enduring learning opportunities that can (maybe even should) inform our teaching even when the world rights itself..." (email to Author B on April 27, 2020).

Figure 1. An Example of the Innovative Lesson Plan Format Provided by Marie



The innovative lesson plan format provided by Marie was the impetus for our research on the alternate practicum and the learning opportunities created within these plans and beyond them. As we engaged with each other and the lesson plans and reflections provided by Marie, we recognized that the theoretical understandings rooted in multiliteracies (e.g., NLG, 1996) that had previously framed our research and teaching seemed inadequate for understanding the complexities these literacy artifacts were producing (e.g., Kuby, Spector, & Thiel, 2018). As we turned to posthuman understandings of literacies and pedagogies, we started to appreciate these onto-ethico-epistemologies (e.g., Kuby, Spector, & Thiel, 2018), recognizing their resonance for us as literacy educators. In this article, we focus on Marie's innovative lesson format as a portal for considering newness in literacies pedagogies. Further, we explore the ways these innovations contribute to newness in our ways of thinking and doing as teacher educators of literacies.

Theoretical Orientation: Thinking with Posthumanist Theories

In this article, we discuss the lesson planning format provided by Marie from our posthuman orientation to the world, mindful of Kuby, Spector and Thiel's (2018) observation that posthumanism "is not a theoretical framework that we 'apply' to data but an array of concepts that we diffractively put to work with data to produce newness" (p. 6). Although there are 26 preservice teachers' lesson planning assignments in the data set, we keep returning to Marie's because it appears different (Jackson & Mazzei, 2012). This difference provides a space for us to "put to work" (Kuby, Spector, & Thiel, 2018, p. 6) the posthumanist theories we are reading and thinking with, alongside the data (Jackson & Mazzei, 2012). Within our turn to posthumanism, we recognize that our previous understandings of literacies and pedagogies (e.g., NLG, 1996) are entangled with our "more-than-human onto-ethico-epistemologies" (Kuby, Spector, & Thiel, 2018, p. 2). As we "think with…posthumanist theories" (Kuby et al., 2015, p. 395) in relation with Marie's assignments, we engage with theories of entanglement, intra-actions (Kuby, Thiel & Spector, 2018), and the producing of newness in literacies pedagogies (Kuby, 2017).

Literacies pedagogies produced through entanglements

Whereas "most theories in literacies education are human centered, even if they discuss materials and texts (nonhumans)" (Kuby, Spector, & Thiel, 2018, p. 4), posthumanist theories recognize literacies, pedagogies, and learning as produced through human, nonhuman, and more-than-human[2] entanglements (Heydon et al., 2021). The term entanglement comes from Barad's (2007) theorizing, using quantum physics to describe the ways that "entities" (Kuby, Thiel, & Spector, 2018, p. 69) such as waves and particles intra-act with one another. This theory of intra-action "*signifies the mutual constitution of entangled agencies*" (Barad, 2007, p. 33, emphasis original) across space and time. Barad (2007) theorizes that these entangled agencies, produce newness: "intra-actions not only configure spacetimematter but reconfigure what is possible" (p. 182). In this way, as human, nonhuman, and more-than-human entities intra-act, they merge with one another and cannot be understood as independent objects; they are inseparable from each other (Kuby, Thiel, & Spector, 2018). Barad (2007) describes this broadening of scope around what things are considered to have agency in causal relationships, encompassing both humans and nonhumans: "In an agential realist account, agency is cut loose from its traditional humanist orbit" (p. 177).

Kuby (2017) invited us to think with "the material← →discursive relationship of humans and nonhuman materials" (p. 892) in ways that offer re-imagined understandings of literacies pedagogies. In posthuman onto-ethico-epistemologies, materials, such as digital devices, paper and pencils, along with less concrete (im)materials (Burnett et al., 2014) such as time, space, and matter have agency in the intra-relationships that produce literacies pedagogies. Within these intra-actions, "spaces, contexts, locations and ways of

[2] The posthumanist literature reviewed uses the terms nonhuman and more-than-human to refer to entities that are not human. We use the term more-than-human to include nonhuman entities (e.g., texts and materials) as well as time, space, matter, and affective dimensions. We use the term nonhuman to refer to materials such as books or digital devices when that is the term used in the sources referenced.

being within these are always entangled and changing—producing newness dynamically" (Kuby & Rowsell, 2017, p. 292). The pandemic produced opportunities for us to see literacies pedagogies in new ways as schooling was relocated to home. Teachers and preservice teachers like Marie designed lessons in new formats that invited new materials and ways of being for teachers, students, and their families. As we read Marie's assignments with theory, we began thinking of our pedagogies as teacher educators and so this became another entanglement, and another way that newness was incited (Jackson & Mazzei, 2012).

Newness and Literacies Pedagogies

Posthumanism in literacies research opens possibilities to "extend, expand, and disrupt received wisdom" (Kuby, Spector, & Thiel, 2018, p. 1) and offers opportunities to consider newness as produced through "*entangled agencies*" (Barad, 2007, p. 33, emphasis original) of humans and more-than-humans. For example, Kuby (2017), Wargo (2018), and Lenters and Whitford (2018), in their studies of literacies produced with elementary-aged children, point to the opening up, the unboundedness, and possibilities that a posthumanist orientation offer. These researchers' descriptions of the entanglements of humans, non-humans, and more-than-humans (e.g., Kuby, Spector, & Thiel, 2018) invite intra-actions with the newness produced in/through the literacies of children and educators in classrooms and other spaces.

The conceptualization of more-than-human and human entanglements also has implications for literacies pedagogies. Kuby and Christ (2020), inspired by the work of Puig de la Bellacasa (2017) explain that:

> pedagogy…is a human trouble, but it can no longer be conceptualized as human-only; we cannot take the human out of pedagogy…, but neither can we ignore the entanglements of humans, nonhumans, space, time, materials, and so forth in our pedagogies. (p. 60)

In this way, posthumanism opens possibilities to work within a complexified view of pedagogies that "embrace(s) a paradigm that…moves us beyond anthropocentric (human) and logocentric (language) ways of researching" (Kuby, 2017, p. 878) and invites us to think in unbounded ways about how newness and perhaps new literacies pedagogies are produced.

As teacher educators in an elementary teacher education program, we are concerned with literacies pedagogies produced within elementary and teacher education classrooms. In preservice teacher education, lesson planning has commonly been approached using models that start with lesson outcomes or objectives and move through a standard format that has often been "criticized [as] being too linear" (Ruys et al., 2012, p. 366). Posthumanism opens opportunities to attend to the newness of lesson plan formatting within Marie's assignments. The newness in lesson formatting, an unbounded or less bounded approach to lesson planning that we had not seen before, was produced though the entanglements of Marie, the digital and analogue materials, and the (im)materials (Burnett et al., 2014) (e.g., the pandemic-enforced alternate practicum assignment, Marie's knowing of her students, and her preservice teacher education courses). Building from Kuby and Crawford's (2017) article on Writers' Studio as an "intra-activity of humans and nonhumans" (p. 20), we consider Marie's graphic lesson plans as multimodal artifacts that

were produced through such intra-actions. As we explore the lesson planning assignments provided by Marie, we wonder if some of the intra-actions of Marie's assignments with other agencies or entities, human and more-than-human, entangled in the pandemic context, might offer new possibilities for us as literacies teacher educators. As we trace the newness produced in Marie's work and imagine these possibilities, we recognize that "we are already entangled in producing the world through our intra-actions with humans and nonhumans" (Kuby, Spector, & Thiel, 2018, p. 6). In other words, these entanglements include our involvement as teacher educators and researchers and produce newness as we, Marie's assignments, and other agencies continue to intra-act. As these "intra-actions configure spacetimemattering", we begin to see how they also "reconfigure what is possible" (Barad, 2007, p. 182). This leads us to consider *how* Marie's literacies pedagogies were produced through the intra-actions of these entanglements.

Thinking with Theory: Methods of Data Production and Analysis

As we began to engage with posthumanist theories of literacies that required different ways of thinking and doing, we considered how we might study with(in) posthumanism. Though a bounded, qualitative case study (e.g., Yin, 2014) was a comfortable methodology for us, we considered that *thinking with* theory (Jackson & Mazzei, 2012) might better appreciate phenomena as "multiple, subjective, and produced from a series of complex relations" (Ulmer, 2017, p. 5). Jackson and Mazzei (2012) explain that their "methodology-against-interpretivism disrupts the centering compulsion of traditional qualitative research; …[their] project is about cutting into the center, opening it up to see what newness might be incited" (p. viii). We engage in a process of "plugging in" (Jackson & Mazzei, 2012, p. 2) the data set with Barad's (2007) conceptualizations of intra-actions and entanglements. We look to explore newness through "reading-the-data-while-thinking-with-theory" (Jackson & Mazzei, 2012, p. 4). Within and through this process, we consider that theory and data "constitute or make one another" (Jackson & Mazzei, 2012, p. 137).

Methods of data production

Thinking with (Jackson & Mazzei, 2012) theories of intra-actions and entanglement (Barad, 2007) led us to trace the more-than-human and human entities within Marie's literacies pedagogies through her novel lesson plan format. We follow Kuby et al.'s (2015) work, which traces the intra-actions of the entanglements of children in Writers' Studio and more-than-human entities such as time, paper, and paint. As we think with theory (Jackson & Mazzei, 2012), in other words, knot together (Jackson & Mazzei, 2018) the texts of posthumanist theories and the lesson plan innovations), we view these plans as being produced within intra-actions of humans and more-than-humans (Barad, 2007). As we identify these entities, we recognize these "data are partial, incomplete, and always in a process of a re-telling and re-membering" (Jackson & Mazzei, 2012, p. ix). We next identify some of the more-than-human and human entities that were a part of the production of these lesson plans.

More-than-human entities

Though it would be impossible to identify all the more-than-human entities that were a part of the lesson plans provided by Marie, a number of these entities were visible within the alternate practicum assignments. We identify a particular context for teaching, learning, and living in Nova Scotia in Spring 2020, and the parameters for lesson plans outlined by the Faculty of Education (FoE) for the alternate practicum.

Pandemic context. As the pandemic began in Canada in Spring 2020, communities went into lockdown and schools suddenly closed. This rapid shift was surprising for us and our students as our PSTs were prepared to return to their classrooms following the March Break holiday. In Nova Scotia, the lockdowns created challenges for communication as high-speed internet is not universally available in this rural province (McKee et al., 2022). These conditions and others contributed to an isolating experience for many. We recognize that while this description reflects our view of a pandemic context, the PSTs may have had other experiences of which we are unaware.

Alternate practicum assignments. The lesson plans provided by Marie were assignments created in response to guidelines issued by the FoE. Within the alternate practicum, PSTs completed three tasks:

- Assignment 1: create a set of lesson plans that would be suitable for in-person pre-pandemic teaching;
- Assignment 2: re-design these lesson plans to support at-home learning; and
- Assignment 3: reflect on their experiences in planning and describe their decision-making when translating the lesson plans from Assignment 1 to Assignment 2.

These lesson plans and reflection documents were data sources for the study. These assignments were shared with Faculty Advisors and were not implemented in classrooms or shared with the families or partnering inservice teachers. This decision was due to concern raised by the provincial Department of Education and Early Childhood Development (DEECD) that the unprecedented and stressful changes to teaching and learning for inservice teachers produced conditions too challenging for the mentoring of PSTs (McKee et al., 2022). Though not implemented, the lesson plans were planned with the children in their Fall practicum classrooms in mind.

Since the translation of lessons to support in-person learning to at-home learning was a novel experience, the FoE threaded guidance through the assignment descriptions to support PSTs; this guidance encouraged PSTS to "aim to take 'normal' in-class lessons and create out-of-school learning experiences, as possible (clearly, some elements will change, though learning outcomes should remain)" (Faculty of Education, personal communication, March 2020, n.p.). This guidance considered the lesson planning for in-class instruction in pre-pandemic conditions as normal or typical and positioned this planning as a resource for the new context. The FoE guidance for PSTs to maintain learning outcomes mirrored the guidance the provincial DEECD gave to inservice teachers in planning for at-home instruction (McKee et al., 2022). Further, the FoE encouraged PSTs to consider how parents and families might be a part of the lessons they designed to support at-home learning (McKee et al., 2022). In this way, the FoE required traditional elements

to lesson planning such as curriculum outcomes, but also invited PSTs to determine what elements of lesson planning should shift in the context.

Human entities

There are a number of human entities in this study. One human is PST Marie, who was one of 26 elementary PSTs who elected to be a part of the research study. Marie was in her second year of a two-year post-degree teacher preparation program and had completed all of her courses. These courses included two courses in English Language Arts (ELA) methods (for Kindergarten to Grade 6), and an Integrating Curriculum course, along with other required courses. As mentioned previously, Marie's work was the impetus for our research study; once we viewed Marie's work, we sought and received approval from the Research Ethics Board at the university where the authors work. Recruitment for the study began after the alternate practicum ended and when the PSTs were no longer students of the authors.

As teacher educators, researchers, and authors, we are also entangled in this work (Kuby, Thiel, & Spector, 2018). We were no longer teaching or assessing Marie's work or that of any of the PSTs when we began this research and solicited the alternate practicum assignments that became our data, so held no authority over Marie, but we knew her nonetheless. Through our work as teacher educators, we had all taught Marie as a student in our courses and worked with Marie on previous lesson planning activities. Further, Author A worked directly with Marie as a faculty advisor during the alternate practicum. While these experiences with Marie in our classrooms and advisory discussions are not included as data sources, we recognize they are entangled in this work in visible and invisible ways.

There are other humans within the entanglements that produced these lesson plans. Some of these humans are visible in the lesson plan and reflection assignments of the alternate practicum (e.g., as Marie considered how she might support children and their parents in the plans). Since the plans were not implemented with families, we cannot say how the newness in the plans influenced learning or relationships. There may be other humans in the entanglements as well (e.g., the classroom teacher, Marie's roommates or friends that made suggestions to her work, and family members who are a part of Marie's life). With this in mind, we make attempts to show some intra-actions that produced Marie's lesson plans but recognize these attempts can only partially represent the complexities of these entanglements.

Methods of Analysis

As we engaged with each other and the lesson plans provided by Marie, we began *thinking with* (Jackson & Mazzei, 2012) Barad's (2007) notion of intra-actions. We looked through the texts provided by Marie and we considered what more-than-human and human entities might be a part of producing newness in the lesson plans. We contemplated the intra-actions that produce Marie's lesson plans as dynamic and connected to *her* past and futures, while also being a part of *ours* (Kuby & Rowsell, 2017).

The processes of analysis were entangled with theory (Jackson & Mazzei, 2012) and were non-linear as we were sometimes drawn to the human entities in Marie's work in ways reflective of our past understandings of literacies theories. Thinking with theory

(Jackson & Mazzei, 2012) reminded us to look in-between the human and more-than-human entities (Kuby et al., 2015) as we plugged in the data set with theories (Jackson & Mazzei, 2012). Like Jackson and Mazzei (2012), in our readings of data, "we were attentive to our own theoretical and methodological perspectives on voice, truth, and meaning" (p. 4) which are in motion. We were also attentive to our professional and pedagogical proclivities as we considered how the lesson plans affected our practices, as we discussed theoretical concepts alongside the data and our roles as teacher educators and researchers and our power associated with those roles (e.g., Jackson & Mazzei, 2012). As we began thinking with theory, we asked questions of ourselves and of the data. Like Jackson and Mazzei (2012), "The 'intra-action[s]' that characterized our process…[were] made of re-considering the mutual constitution of meaning as happening in between researcher/researched; data/theory; and inside/outside" (p. 11). As we (re)present newness in the lesson plans provided by Marie, "We acknowledge that we alone are not the authors of this assemblage; the research participants and the theorists inserted themselves in the process" (Jackson & Mazzei, 2012, p. 2). As such, we consider that these (re)presentations are themselves produced through intra-actions (Barad, 2007).

(Re)presenting Out of the Box Planning

As we turned to (re)presenting the newness in the lesson plans provided by Marie, we were keenly aware of "the limits of language and linear publishing formats" (Kuby, 2017, p. 880) for showing the complexities of the intra-actions that produced the new lesson plan format and our plugging in data with theory (Jackson & Mazzei, 2012). We aim to disrupt some of the linearity of a traditional text by altering the script format and showing examples from the lesson planning assignments in Marie's original font and format. Since the alternate practicum was comprised of three connected assignments, we include examples from each assignment: the plans Marie created for classroom learning in pre-pandemic conditions (Assignment 1), the redesigned lesson plans to support learning at-home (Assignment 2), and excerpts from her reflection assignment (Assignment 3) where she explained the entities she viewed as part of her pedagogical choices. We include comments made by Marie, not to centre our discussion on her, but to look through her comments to expose some of the entities implicated in the entanglement (Barad, 2007). Interspersed throughout this section, we include text boxes that make visible some of our thoughts in relation to what we are learning in/through the assignments provided by Marie and include questions that emerged through thinking with theory (Jackson & Mazzei, 2012). We use a permeable line around these text boxes to show our thoughts as entangled with the data. Within these text boxes, we use a different font to further distinguish our thoughts and questions in analysis from the assignment examples provided by Marie.

What Newness is Visible in Marie's Literacies Pedagogies?

The lesson plan format provided by Marie to support her Grade 1 and 2 students and their families in experiencing poetry at home during the pandemic was unexpected and innovative. We expected to see lesson plans that were similar in format to the template often used in the FoE coursework and aligned with the lesson plans submitted for Assignment 1 (See Figure 2 for excerpt of the lesson plan format Marie employed in

Assignment 1). This lesson plan format is comprised of a series of boxes, laid out in a linear format, and uses black text without additional images.

Figure 2. Lesson Planning Using a Traditional Template in Assignment 1

Title of Unit: Spring into Poetry:... An Integrated... Project-Based Unit [for Grades 1 & 2] ...	

Unit Overview:	• This unit is designed for students to engage with reading and writing poetry...
	• Students will...write, illustrate, and create a video orally sharing their poem ....
	• We will... go outside ...
	• Students will use graphic organizers...to write their poem....
	• I will use a...range of assessment tools...:
	  ○ Observation and anecdotal notes (formative)
	  ○ Rubric (summative assessment tool)...

Student Information:	This unit will be differentiated... to support learning.... The learning will be hands on in design... Learning centers and small group instruction will be used....
Student prior knowledge...	ELA: Students have prior knowledge reading and writing letters and short stories. Students have also been expressing their emotions and feelings through choice writing in their journals ....
[English Language Arts]: Outcome/ Indicators	**Outcome 6:** Learners will use writing and other forms of representation including, digital texts... (Grade 1) • write, using drawings, a combination of letters... and known words, a variety of poetry, fiction, and non-fiction texts... (Grade 1) • write a variety of poetry, fiction, and non-fiction texts (Grade 2)....

In contrast, the lesson plan format Marie submitted to support at home-learning in Assignment 2 is visually different. This innovative format is colourful, includes icons, images, and hyperlinks and is intended for use by parents and their children (Figure 3).

Figure 3. New Lesson Planning Format in Assignment 2

The lesson plans highlighted in Figures 2 and 3 are both designed to support children in Grades 1 and 2 in experiencing poetry. However, they are formatted different ways to support learning in the school (Figure 2) and to support learning at home (Figure 3).

Though the multimodal lesson planning format provided by Marie is novel, we also see the lesson planning elements commonly used in our teacher education program infused throughout the plans. Both lesson plan formats include: the lesson duration, lesson purpose(s) and goals, the relevant curriculum outcome(s), information about students' prior knowledge, how students' learning will be assessed, and the design of the lesson sequence.

In what ways are Marie's lesson plans examples of newness? What produced this newness?

Marie considered that the relocation of schooling to home required a new format for lesson planning. She explained:

> I decided to create my at-home learning activities to be almost like a children's book[3] - easily read, bright colours, encouraging text, and with visual images and cues [see Figure 3]. The idea was that parents would be reading and delivering the lessons, but the template overall was also engaging, eye-catching and easy for students to navigate as well. In my design, I tried to carry that messaging throughout the graphics and text…

The at-home learning context prompted a new purpose/function of lesson plans. Whereas the traditional lesson plan was intended solely for the teacher's use, Marie envisioned her lesson plans as guidance and support for families who would be engaging with one another and materials to enact the lessons she designed. This new purpose was in addition to the FoE's assignment requirements to design lessons that responded to curricular outcomes, outlined lesson sequences and assessment criteria, and identified required time and materials.

The lesson-plans-formatted-as-children's-book could enable new ways for parents and children to join together in learning activities Marie provided. For example, Marie explained that she included icons and images on each page to support parents and children in co-navigating the activities, where parents could read text-based instructions and the children could read the icons. Since Marie would not be physically present as parents and children engaged in the learning activities in the home, the format of the lesson plans supported parents' and children's co-navigation of learning activities as Marie provided a description of each of the icons used in her children's book as a guide (see Figure 4). These icons were a novel way to include some more expected components of a lesson plan (e.g., curriculum outcomes, materials needed, and activity duration).

[3] We understand Marie's description of her lesson plans as a children's book to refer to those picture books that are designed to be read by an adult alongside children.

Figure 4. Explanation of Icons to Support Parents and Children in Co-navigating Lesson Plans

In addition to the icons and step by step instructions that guided parents and children through the lesson plans, the lessons included "options" that parents and children could choose to pursue. Some options could be accessed through hyperlinks to videos that explained different formats of poetry and word banks. Other options did not rely on technology and offered suggestions of additional poetry writing options using pencil/crayons and paper.

We see possibilities for leveraging the affordances of the children's book genre for a lesson plan, especially within the new context of at-home learning in the pandemic. Children's books can offer an accessible format and would likely be a genre that many parents and children have engaged with together pre-pandemic. As we imagine parents and children reading stories together, we see a sense of togetherness as a parent might read the text and the child might read the images. It is exciting to think of a lesson plan as a children's book because a children's book tends to be open and invites exploration and interpretation; it is not fixed. This is in stark contrast to some teacher-driven prescriptive lesson plans we have seen.

What would happen if we conceptualized lesson plans as stories that could be taken up in different ways by children and families? What might envisioning lesson plans as pedagogical stories produce within our teacher education classes?

What are the Intra-actions that Produced Newness in these Literacies Pedagogies?

Many human and more-than-human entities intra-acted to produce the new lesson format. For example, the affective dimension was entangled as Marie described her lesson planning processes in Assignment 1 as "extremely challenging" and "draining" and explained that she felt "discouraged and not motivated" to design these lessons. As Marie

redesigned her lessons to support learning at home (Assignment 2), she described a shift in her thinking and planning and explained, "I finally gained momentum in [Assignment 2] because it gave me the opportunity to apply and consolidate what I learned in the Bachelor of Education program in a creative and innovative way."

The knowledge of pedagogies and of her students Marie gained in past practica were a part of producing the novel lesson format. For example, within her reflection assignment, Marie considered that her students required her to be innovative in her teaching in the classroom; this knowledge informed how she planned to support children and their families in the alternate practicum:

> In my [fall] practicum, I found it challenging to teach my students in the traditional way where you list the curriculum outcomes, materials, lesson hook, body of the lesson, closing, etc., in a neat and easy table where you follow the lesson chronologically. Through my experience in [this Grade 1 and 2] class, I learned that my class did not learn in the 'traditional' way…. I kept wondering what I was doing wrong? I had seen the traditional way [of planning and teaching] work through my… experience in practicum last year.

The relocation of schooling to home meant that pedagogies that were supportive in the classroom might not directly "transfer into their new environment" (Marie). In addition to the learning needs of children, the circumstances affecting students and their families were also a part of the lesson planning:

> I …[worried] about whether or not some of [the children] were getting enough to eat…whether their parents lost their jobs, whether or not they had a working computer or phone, whether they had access to pencil and paper. Were they safe, did they feel scared?

The lesson plan format was produced through Marie's knowledge of her students, an anticipation of varied and challenging circumstances in the home, a need for innovative pedagogies in this uncertain environment, and her learning in her teacher education courses. Marie explained, "My idea for my [visual template] design…came from a project where we made an infographic to explain curriculum integration to parents from our Integration of Curriculum course… [I used this] as a springboard". In addition to her awareness of how past experiences shaped her design decisions, Marie also considered her own preferences as she described herself as a "visual and hands-on learner". As Marie contemplated her experiences in teacher education, she explained:

> I have found that the [teacher education] classes where I have learned the most, are where the teaching and assessment are different, where we are asked to be creative and think outside of the box. Create a video, an infographic, have a one-on-one conference, teach a mini-unit to the class…[Thinking of these experiences,] I wanted to graphically represent my lesson plans in a way that would be supportive, enriching, and easily accessible for parents and their students at home. I am wondering why I had chosen to always follow the mold of a lesson plan template instead of trying to create a more visual template, something I would actually use… in my future classrooms.

In addition to the entanglements Marie identified, we see others in her redesigned plans and her reflection assignment. The temporal element is entangled in Marie's plans, as she thought back across previous practica and her courses over the two years of the teacher

education program, while also looking ahead to her desire to develop her plans using "a more visual template" in her future teaching. Human ←→ more-than-human entanglements of Marie's knowing of the students and of herself as a learner can also be seen as she considered the context of this classroom, as well as the parents and students who were suddenly thrust into the at-home learning situation, and her own lesson planning preferences.

Also visible in Marie's novel lesson plan format are the human←→more-than-human intra-actions of Marie with Canva, the software which she used to produce the redesigned lesson plans. In her previous classes in teacher education, Marie observed how the visual appeal of resources created with programs such as Canva could enable communication with parents, and adapted this to support families during at-home learning. The advent of at-home learning, brought about by the pandemic, was itself a more-than-human element in the intra-actions in Marie's redesigned plans. Similarly, the alternate practicum assignment guidance and curriculum expectations intra-acted in her redesigned assignment. Without these entanglements, these lesson-plans-formatted-as-children's-book might never have been produced.

As we view Marie's innovative literacies pedagogies, we can see the format as produced through intra-actions of Faculty of Education assignment criteria, provincial curricula, Marie's knowledge of pedagogies, curricula, her students and their families, and of herself as a learner. Also enfolded in these entanglements are the pandemic conditions which included fear and uncertainty. It feels like Marie's pedagogical design is in motion as she describes her lesson planning assignment as being connected to the past, designed for an uncertain present, and generative to her post-pandemic futures.

What can we learn in/through Marie's pedagogies in a new era?

Pausing to (Re)think: The Entanglements of Pandemic-provoked Innovations in Literacy Pedagogies

We view the innovative lesson plan assignments provided by Marie to support learning at home during the pandemic as a portal for considering the entities that intra-acted (Kuby, Spector, & Thiel, 2018) to produce newness (Kuby, 2017). Initially, we were drawn to Marie's lesson plan format because it was different (Jackson & Mazzei, 2012); this difference prompted us to "pause" (Kuby, 2017, p. 893) and take a closer look. As we "put to work" (Kuby et al., 2018, p. 6) posthumanist theories, we considered that the lesson plan innovations were produced not only by Marie, but through entanglements of humans← →more-than-humans (Barad, 2007). Our *thinking with* (Jackson & Mazzei, 2012) Marie's lesson plans and theories also generated new thinking in our work as teacher educators and researchers (Kuby, 2017).

Reading the innovative lesson plan format provided by Marie alongside her description of "think[ing] outside of the box" opens spaces for us to think about newness as unbounded (Kuby, 2017) as we consider where traditionally inscribed boundaries were

dismantled, diffused, or redefined in Marie's lesson plans. For example, the lesson-plans-as-children's-book provided by Marie departed from a traditional linear format (e.g., Ruys et al., 2012) as the boxes of her lesson plan format from Assignment 1 (Figure 2) were literally dismantled to produce something visually unique (Figure 3). Within this format, boundaries were further redefined as the lesson plan function shifted to a communication tool with/for parents and children and invited learning to take place on couches and outdoor spaces in/around the home (McKee et al., 2022). In addition to including new spaces for learning, the lesson plan format promoted opportunities for children and families to interpret and adapt the lessons to respond to their unique circumstances through the inclusion of hyperlinks, suggestions for additional practice, and invitations for video calls. In this way, the lesson plan format invited teachers, parents, and children to join together in new ways to support early literacy learning during the pandemic.

There were also instances where traditional boundaries were reinscribed as examples of newness were entangled with past practices and experiences. For example, though the lesson plans in the lesson-plans-as-children's-book are visually unique, some of the activities represented, such as the creation of an acrostic poem (Figure 3), are similar to those identified in the traditional lesson plan (Figure 2). Additionally, some of the typical lesson plan elements, such as the time suggested for the lesson (5-10 minutes), the English Language Arts curriculum outcomes, and the procedures for enacting the plan in three steps of the lesson, are visible in the novel plan. We cannot definitely say what prompted Marie to reinscribe these boundaries, but recognize that the FoE's assignment guidance is likely implicated as PSTs were reminded that "some elements [of lesson plans] will change, though learning outcomes should remain" (Faculty of Education, personal communication, March 2020, n.p).

These examples forward a complexified view of pedagogical newness, where newness, or examples of "thinking outside of the box" are entangled with inscribed or traditional practices (e.g., Barad, 2007) of lesson plan formatting. In this way, newness is not a binary construct, where something is new or it is not. Instead, there are elements of newness produced within intra-actions of humans and more-than-humans (Barad, 2007). As we plug in the data with theory (Jackson & Mazzei, 2012), we consider that the innovative lesson plan format provided by Marie is not completely unbounded and inventive (Kuby, 2017), but that there are elements that move in that direction.

This view of new/not-new supports us to think about literacies pedagogies in motion, moving back and forth between the familiar and the new, and about lesson planning as a far-from-linear activity. Inherent in this complexified view of newness are intra-actions between human and more-than-human entities (Barad, 2007), as the representations of the lesson planning illustrate. Within this view, tensions arise as teachers like Marie endeavour to "think outside the box" but cannot quite disentangle from traditional practices of lesson planning due in part to these intra-actions. These tensions are also entangled with our thinking about how intra-actions described in this article "configure[d] spacetimemattering" in new ways, and as we began to consider how they also "reconfigure what is possible" (Barad, 2007, p. 182).

As teacher educators and researchers, *thinking with* (Jackson & Mazzei, 2012) posthumanist theories of intra-actions, entanglements (Kuby, Spector, & Thiel, 2018) and newness (Kuby, 2017) prompts us to appreciate pedagogies, both our own and those of our

students (both teachers and preservice teachers) in new ways. That is, we view pedagogies as not produced solely by the teacher or teacher and student, but through "entanglements of humans, nonhumans, space, time, materials" (Kuby & Christ, 2020, p. 60). The recognition of the human← →more-than-human entanglements of lesson planning provides spaces for teachers (and teacher educators) to begin to grasp the idea that other entities are inextricably involved in this planning (as well as the teaching and learning) (Barad, 2007). Some of these entities are visible and some less visible. The pandemic context provides an example of a visible entity, in that this more-than-human entity which prompted closure of schools produced a pause during which teachers in schools, and in teacher education programs, had to think about how we plan and teach, as we could no longer continue as we had before the pandemic.

In this way, Marie's pause, her need to "think outside the box", becomes our pause too, as we "plug into" (Jackson & Mazzei, 2012, p. 1) posthumanist theories. As we engaged with the assignments provided by Marie, opportunities for newness emerged in our teaching and research as we attended to the human ←→ more-than human entanglements (Barad, 2007). As we read the examples highlighted by Marie of teacher education course assignments that supported her innovation, we recognize how these examples are entangled in the pedagogies of our teacher education classes. Our engagement with the assignments and with each other has prompted us to consider ways we may promote newness through inviting the use of less-bounded lesson plan formats in our teacher education courses.

However, just as the newness of Marie's lesson plan formats could be explained as new/not-new, the same can be said of our teaching and research. We value posthuman onto-ethico-epistemologies (Kuby, Spector, & Thiel, 2018), but are sometimes pulled back to the certainty/solid ground/comfort of what we have historically known in terms of multiliteracies theories (e.g., NLG, 1996). For example, in writing this paper we have continually had to question ourselves. Are we considering the more-than-human and human entanglements (Barad, 2007) within the lesson plan format of Marie's assignments? Are we remembering that pedagogy is not a human-only enterprise (Puig de la Bellacasa, 2017)? Are we falling back into a humanist perspective? Is our language use aligned with that of the posthumanist theories we are *thinking with* (Jackson & Mazzei, 2012)? We expect this paper reflects a sense of the new/not new space we are in; perhaps this liminality is part of the "'intra-action[s] that characterized our process" (Jackson & Mazzei. 2012, p. 11). We are beginning to experience what Jackson and Mazzei (2012) suggest regarding "…the mutual constitution of meaning as happening in between researcher/researched; data/theory; and inside/outside" (p. 12). We have felt a bit torn apart by the multiplicity of intra-actions, a bit changed by the tensions of this mutually constitutive process (Barad, 2007).

As we contemplate implications for pedagogies in a future which includes COVID as an endemic reality, we do not suggest that Marie's lesson planning format should be taken up by all, which would simply be inscribing of another format. Rather, we consider that the element of newness produced within this entanglement opens a portal to the possibilities of different pathways in lesson planning, which could in turn open spaces for expansive literacies teaching and learning in elementary and preservice teacher education classrooms. In our teaching, we are attending in new ways to the more-than-human entities

that are a part of teaching and learning. In our research, we are more attuned to ways that our past ways of knowing, being, and doing are entangled with our presents and futures. What other newness might be produced through attending to "the entanglements of humans, nonhumans, space, time, materials, and so forth in our pedagogies" (Kuby & Christ, 2020, p. 60)?

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