

Background

The COVID-19 pandemic created the need to shift our SSHRC makerspace project. Prior to March 2020 we were working with a group of Alberta teachers examining digital literacy practices and makerspace pedagogies in early years classrooms.

After the pandemic arrived, most of these teachers, were required to switch to online and remote teaching and schools were not accessible to students. Researchers were

also faced with restrictions with most in-person research activities paused. We remained in contact (remotely) with participating teachers and they expressed an interest in continuing in our study, shifting towards examining their new digital challenges and other changes they were making in response to the pandemic.

We have continued to follow these teachers from 2021, expanding to include

additional teachers. We developed an initial online survey, followed by teacher interviews.

In spring 2022 we were able to continue our makerspace work through a project in an after-school program organized by a group of volunteer-parents in a Western Canadian elementary school.



Photo by [Mick Haupt](#) on [Unsplash](#)

Methodology

- Qualitative research methods informed by ethnography (Kvale, 1996; Purcell-Gate, 2011).
- For the teachers, data collected included qualitative online surveys, focus group meetings, semi structured interviews & field notes
- For the Makerspace Club, data included observations, photographs, field-notes, participants' literacy artifacts, & follow-up semi structured interviews with participants.



Outdoor Makerspace Club

- Much of the research on makerspaces to date has been focused on high schools (Peppler, Halverson & Kafai, 2016).
- Makerspace experiences can enhance children's creativity, problem-solving skills, and digital literacy, which in turn can boost their overall literacy learning (e.g., Blum-Ross, Kumpulainen, & Marsh, 2020; Wohlwend et al., 2018).
- In our study, 'making' required time and space without too many constraints for creativity.
- The Makerspace club provided opportunities for promoting language and literacy development for the children and supporting their curiosity and engagement.
- Makerspace clubs have the potential to enhance children's literacy learning while making interesting "stuff" and having fun.



Publications

- Laidlaw, L., & Wong, S. (in press). Teaching in strange times: Literacy teachers in the pandemicene. *Language & Literacy*.
- Laidlaw, L., & Wong, S. (2024). Learning to read the (digital) room during the COVID-19 pandemic: Teacher perspectives. In K. Marsh-Davies & C. Burnett (Eds.), *Teachers and teaching post-COVID: Seizing opportunities for change* (pp. 274 - 290). Routledge.
- Laidlaw, L., O'Mara, J., & Wong, S. (2021). Reimagining literacy: Being literate in the pandemic era (Editorial). *Language & Literacy* 23(2): 1 – 2. <https://doi.org/10.20360/langandlit29562>
- Wong, S., Laidlaw, L., & Liu, Y. (2021). Reimagining professional development for digital literacies: Old, new and pandemic. *Language & Literacy* 23(2): 49 – 60. <https://doi.org/10.20360/langandlit29563>

Conceptual & Theoretical Framework

- Informed by **complexity thinking** (e.g., Davis & Sumara, 2010) to gain insights into the teaching contexts and experiences of participating teachers.
- Notion of the '**pandemicene**' (Yong, 2022) to understand teachers' experiences during the COVID-19 pandemic.
- Theories of **literacy and multimodality** (e.g., Pahl & Rowsell, 2012; Scott & Marsh, 2018) to understand children's maker literacies and teachers' digital practices.
- Green's (1988) **three-dimensions of literacy (3D model)**: *operational/technical, cultural/semiotic, & critical/reflexive* which we use to analyze teacher and child participant data.

Teaching in the Pandemicene

- Teachers in our study echoed other early pandemic research which found that teachers frequently acknowledged a lack of technological competence and experienced pedagogical challenges as they tried to shift from familiar teaching strategies to new ways of delivering lessons (e.g., Howard et al., 2021; UNESCO, 2020; Laidlaw & Wong, 2024).
- This was similar to a 2020 Alberta Teachers' Association study which reported that many teachers were unprepared for the shift to online teaching environments. The teachers we interviewed (including teachers outside of Alberta) as stated by one all indicated "It was tough....really, really tough!"
- Yet, teachers reflected that there were possibilities for innovation and new digital approaches in spite of many inequities and 'digital gaps' for students.
- Alberta teachers experienced particularly heavy burdens with new ELAL curriculum and assessment processes to address 'learning loss'. They saw bigger social/emotional/developmental issues for students.

Teachers' Voices

- We didn't know what we were doing. . . . The parents had no training. The teachers had no training. The kids didn't have devices.*
- I remember ... this kid just wouldn't listen to me but I would see her walk by the school ... just to use the wifi. 'cause some homes don't have wifi.*
- Two of my students blossomed in online learning, I wasn't hearing a peep out of them in the classroom.*
- Those pandemic kids and I, the online kids, we were linked in a special way because I got to know them on their own ground. This was a bonus to me.*
- ...it shifted my teaching. I think that I've become a better teacher in some ways. I'm using different teaching strategies now in the classroom than I did before [the pandemic].*

