The Canadian Journal of Action Research

Outdoor Play and Learning in Elementary Schools: A Critical Participatory Action Research Project

Megan Zeni, Leyton Schnellert et Mariana Brussoni

Volume 24, numéro 3, 2024

Action Research and School Community Health and Wellness

URI : https://id.erudit.org/iderudit/1113698ar
DOI : https://doi.org/10.33524/cjar.v24i3.675

Aller au sommaire du numéro

Éditeur(s)

Canadian Association of Action Research in Education

ISSN

1925-7147 (numérique)

Découvrir la revue

Citer cet article

Zeni, M., Schnellert, L. & Brussoni, M. (2024). Outdoor Play and Learning in Elementary Schools: A Critical Participatory Action Research Project. *The Canadian Journal of Action Research*, *24*(3), 105–126. https://doi.org/10.33524/cjar.v24i3.675

Résumé de l'article

In this study, we enacted critical participatory action research (CPAR) within an online community of practice (CoP). The CoP was designed to build a community of outdoor play and learning (OPAL) practitioners. This paper describes how a cohort (n=18) of experienced Kindergarten to grade eight (K-8) teachers from across British Columbia shared their OPAL experiences and practice and the collective action taken. Regularly scheduled meetings over a six-month period resulted in dialogue that identified the need for quality resources that were accessible for all teachers. The concept of a website, developed for teachers by teachers experienced with OPAL, was initiated within the CPAR process. This article describes findings related to participation in a CPAR CoP, and the process of deciding upon and enacting shared action to support OPAL elementary school teachers.

CJAR

Canadian Journal of Action Research
Volume 24, Issue 3, 2024, pages 105-126

OUTDOOR PLAY AND LEARNING IN ELEMENTARY SCHOOLS: A CRITICAL PARTICIPATORY ACTION RESEARCH PROJECT

Megan Zeni
University of British Columbia

Leyton Schnellert
University of British Columbia

Mariana Brussoni
University of British Columbia

ABSTRACT

In this study, we enacted critical participatory action research (CPAR) within an online community of practice (CoP). The CoP was designed to build a community of outdoor play and learning (OPAL) practitioners. This paper describes how a cohort (n=18) of experienced Kindergarten to grade eight (K-8) teachers from across British Columbia shared their OPAL experiences and practice and the collective action taken. Regularly scheduled meetings over a six-month period resulted in dialogue that identified the need for quality resources that were accessible for all teachers. The concept of a website, developed for teachers by teachers experienced with OPAL, was initiated within the CPAR process. This article describes findings related to participation in a CPAR CoP, and the process of deciding upon and enacting shared action to support OPAL elementary school teachers.

KEY WORDS: Action research; Community of practice; Outdoor play; Outdoor learning; Pedagogy; Professional development; Risky play

INTRODUCTION

This project brought together teachers from across British Columbia (BC) to share their understandings of Outdoor Play and Learning (OPAL) in elementary schools. We took up critical participatory action research (CPAR), which is grounded in an epistemological assumption that knowledge is constructed socially, and that research relationships can be formed through mutual concern for a shared problem (Hall, 1992). There were two shared

problems for participants in this study: 1) the isolation they experienced as OPAL practitioners in a brick-and-mortar classroom-based school system and 2) the significant demand for OPAL expertise, particularly as schools re-opened during a global pandemic. During data collection for this study, public health directives included recommendations to keep children outdoors as much as possible.

So much of what is traditionally considered to be play at school is, in fact, highly supervised, directed by adults, or goal oriented. North American education practices tend to restrict children's choice in play and are often directly in conflict with what OPAL practitioners would argue an OPAL pedagogy offers (Oberle et al, 2021). This leaves classroom teachers negotiating school day opportunities for OPAL and problem-solving workarounds for environmental and systemic barriers (Hughes et al., 2017; Parsons & Traunter, 2020; Prince, 2020).

In this study, participants engaged in reflective dialogue led by the first author who has significant experience with OPAL as a practicing elementary school teacher. CPAR was well positioned to build a community of practice (CoP), to identify a shared problem, and to make visible the complexity and value of OPAL in the elementary school context. By privileging the experiences and expertise of OPAL teachers across BC, the CPAR process allowed participants to reflect on their own practices to determine how best to support others. Through this CPAR process, participants in the OPAL study determined that a website might function well as a digital support for teachers who wish to locate curricular learning outdoors. This article describes 1) how participants engaged in the CPAR process and 2) how that process led to the development of a website.

Data were collected over a six-month period during the winter and spring of 2022. During this time, all 60 public-school districts in BC were providing on-site learning with encouragement from public health authorities to teach outdoors as much as possible (BC Ministry of Education, 2020). Prior to the pandemic, teachers in this study were experienced practitioners of OPAL, often having to explain and justify their pedagogy. As the province re-opened schools for in-person learning, participants in this study found themselves tasked with local requests to lead professional learning to support colleagues new to OPAL. Consequently, the need for an informative website outlining the intent, opportunities, and affordances of OPAL was identified early in the CPAR process.

BACKGROUND

Global declines in children's access to outdoor play are now associated with a general decline in children's mental wellness, physical literacy, and academic engagement (Burson & Castelli, 2022; Gray et al., 2023; Rudd et al., 2021). The seemingly simple solution for schools to offer opportunities for access to OPAL can be limited by a lack of greenspaces or understanding of the importance of OPAL in the school context. Emerging scholarship of OPAL is built on the work of diverse researchers across multiple fields, many of whom use contested terminology to describe what are often discipline-specific and contextual ontologies and taxonomies (Dyment & Potter, 2015; Lee et al., 2022). In this article, all outdoor play and learning supported by teachers during instructional time at school is

referenced as outdoor play and learning (OPAL) in line with current cross-disciplinary terminology (Lee et al., 2022). The broader aim of this CPAR study was to better understand how OPAL is taken up in schools across BC (Zeni et al., 2023). This article reports on a specific aspect of the research, and the collective action an OPAL CoP identified and undertook to address an existing, and increased, demand for OPAL in schools. Our collective action was the framework for a website to support Canadian teachers who wish to locate curriculum out-of-doors.

Research Objective

Lewin (1946) wrote that the purpose of all social research is to make positive change. This OPAL research project's dual purpose was to build a CoP specifically for elementary school teachers experienced with OPAL, and to document our process of determining an accessible framework of support for less experienced colleagues. For this article our research question asked, "What collective action did the OPAL inquiry community take to support teachers who wish to enact pedagogies of outdoor play and learning in elementary schools?"

Methodology

CPAR was an excellent methodological fit for this study because it was designed to work *with* and *for* educators (Johnson et al., 2019). Adapted from Kemmis et al. (2014), this CPAR study offered conditions for practitioners to: (a) create a professional community of practice to learn from one another; (b) identify, understand, and develop unique teaching strategies and conditions inherent to OPAL in BC; (c) consider how best to support teachers new to OPAL; and (d) make visible the work of teachers who might not otherwise have a platform to share their expertise and practical wisdom in the form of a website.

CPAR is an emergent and collaborative process that can make explicit theories of change that may otherwise have gone unseen or unexamined (Tuck, 2008). As such, CPAR is generally understood as a framework for conducting research and generating knowledge centred on the belief that those who are most impacted by research should take the lead in identifying the problem, framing the questions, designing the study, and analysing the data (Coghlan & Brydon-Miller, 2014). The CPAR framework is rooted in a belief that there is value in both traditionally recognized knowledge, such as scholarship generated by university-based researchers, and historically de-legitimized knowledge, such as knowledge generated within communities (Chikkatur & Oliver, 2020). CPAR exists to make the research process collaborative and democratic, while questioning who has the right to create knowledge, and is widely understood to be community-based action research enacted through a set of shared social values. Stringer (2007) defines these social values as "democratic, equitable, liberating, and life enhancing" (p. 11). While there are multiple understandings and applications of participatory action research, CPAR is understood to be a research methodology that supports collaboration between individuals with "differing power, status and influence… in relation to a thematic concern" (McTaggart, 1991, p. 169). CPAR is therefore a research method that bridges practice and theory while fully engaging and empowering participants (Cusack et al., 2018).

A desire to help others is cited as a motivator for participation in research, as are attempts to gain influence and form new social relationships (Corbin & Morse, 2003). Ultimately, in this study teachers cited their appreciation for learning from peers and connecting with like-minded colleagues as the reward for participation in this study. This paper describes our process of coming together to build community, how we identified a shared need, and how we worked together to design a website to meet this need.

METHODS

Research Design

In this study, teachers came together to share their experiences and expertise with OPAL. Most were motivated to participate because of the opportunity to connect with other OPAL educators within a community of practice. Each participant brought their unique perspectives, lived experience, and insights to the research. This study set out to convene experienced teachers once per month over six months to better define how OPAL is enacted across the province of BC, to identify barriers and problems of practice, and to generate a response to a collectively agreed upon issue. A decision was made to collaboratively design content modules for a website that might serve as a sort of digital colleague when access to mentorship was challenging.

For online meetings sharing protocols were established to ensure all participants who wanted to contribute their perspectives, experiences, and insights could do so. For example, a shared Google Doc was established, everyone had the ability to contribute to the chat during online meetings, and a speaker list was in place so all participants could indicate their willingness to share without interrupting others.

Participants

Inclusion criteria required participants to be certified teachers, currently teaching grades K–8 in an elementary or middle school in the province of BC. Further criteria required applicants to self-identify as practitioners of OPAL who wished to engage in professional dialogue to share and discuss their teaching practices. Participation was voluntary. Recruitment materials resulted in 53 teachers expressing interest in the study. Final selection of participants was determined with a specific intent to represent a diversity of places and identities. Diversity of place considered representation from geographic regions of the province divided into established health authorities. This included the following regions: Fraser, Interior, Northern, Vancouver Island, and Vancouver Coastal. Selection criteria also considered representation from teachers of varying cultural backgrounds and genders, as well as years of teaching experience, school community size, and teaching assignment. Participants were assigned a number to protect confidentiality and are represented in the findings as P-#. Participant data in relationship to teaching assignments and years of teaching experience can be viewed in Table 1.

Ethics Approval

The CPAR study was approved by The University of British Columbia's Behavioural Research Ethics Board (UBC BREB; certificate H21-03897). Once the CoP decided to develop a website, further participation via contributions of video and photograph exemplars to populate modules for the website was voluntary. An adjacent ethics approval was acquired from the

Table 1
Participant Demographics

Participant	Rural/ Urban/SU	Teaching Assignment	School Size	Public/ Independent	Years of teaching Experience	Gender Identity
1	Suburban	K - Grade 5 Non-enrolling prep	530	Public	25	Female
2	Rural	Grades 1 & 2 FT	130	Public	17	Female
3	Urban	Grades 3 & 4 FT	48	Independent	8	Male
4	Rural	Grade 8 .50 FTE & .50 FTE VP	600	Public	10	Female
5	Rural	Grade 7 FT	750	Public	10	Female
6	Urban	Grade 3 .50 FTE	430	Public	14	Female
7	Urban	Grades 3 & 4 .50 FTE	430	Public	6	Female
8	Rural	Grades 1-4 .80 FTE & .20 FTE ELLT	225	Public	7	Female
9	Rural	Grades 1-4 FT	215	Public	10	Female
10	Rural	K – Grade 7 FT Science Lead	170	Public	28	Female
11	Suburban	K – Grade 2 .8 FTE	375	Public	15	Female
12	Suburban	K – Grade 5 Non-enrolling prep	530	Public	15	Female
13	Rural	Grades 3 & 4 FT VP	315	Public	17	Female
14	Rural	Pre-K – Grade 4 FT	200	Public	4	Female
15	Suburban	Grade 2; FT	388	Public	27	Female
16	Suburban	Grade 2; FT	400	Public	5	Female
17	Rural	K – Grade 3 & Head Teacher FT	8	Public	19	Female
18	Rural	Grade 8; FT	550	Public	3	Female

Notes.
*Non-enrolling prep is a school-based teaching position that is sometimes referred to in various jurisdictions as relief teacher or specialist teacher. When the classroom teacher has their preparation time, the students are taught by a specialist teacher. In this study, these prep teachers reported teaching entirely outdoors.
* Full-time assignment (FT)
* Full time equivalent (FTE)
* Vice-Principal (VP)
* Early Learning Lead Teacher (ELLT)

university for the creation of a publicly available website. All participants who contributed to the website completed an additional consent letter. As website modules were developed, recruitment efforts for the adjacent study were extended to teachers from across Canada. Recruitment and collection of artifacts to make up the modules was approved by UBC BREB (H22-01512) and linked to this study.

Data Collection and Analysis

While there is no singular playbook for conducting a CPAR project, practices to improve the validity of findings were carried out in this study. A teacher researcher (first author) facilitated and kept fieldnotes during the six focus group conversations, which were recorded and transcribed. The teacher researcher presented summaries of conversations and reoccurring topics to the CoP to help determine future discussions in focus group conversations.

OPAL CoP meetings were conducted on Zoom and lasted approximately 120 minutes per session. The chat feature on Zoom was also recorded and added to each session transcript. This was a particularly important way of capturing rural participants' perspectives whose internet connections did not always allow for consistent connection with a camera on, and it enabled participants to make connections to shared experiences without interrupting one another. Photographs, videos, student work, digital portfolio entries, and assessment data were presented as artifacts by participants and discussed with the group; these artifacts reflected the meanings participants attributed to them (Denzin & Lincoln, 2011). CoP conversations were transcribed, and data were analyzed inductively. First, CoP meeting transcripts were analyzed for patterns, then participants' artifacts were analysed in consultation with fieldnotes taken during discussions. All collected data were coded to identify emergent patterns, grouped in categories, and ultimately collapsed into themes which became modules for the website.

FINDINGS

In this section, we report findings related to the research question: What collective action did the OPAL inquiry community take to support teachers who wish to enact pedagogies of outdoor play and learning in elementary schools?

Participation in CPAR Process

Over time, as teachers shared their stories and artifacts, a need for reliable OPAL resources to support colleagues was identified. The lead author, as a researcher, facilitated the CoP. As an experienced OPAL practitioner, she brought pedagogical expertise as well as knowledge about available resources (Watters, et al., 2010). McTaggart (1997) claims the dual aim of CPAR is to change not only the situation being researched, but to also alter the researchers themselves. This is achieved through distinctions between participant involvement at a low level versus high level authentic participation that allows for a sense of ownership in the entire project (McTaggart, 1997).

Adapting Schubotz's (2020) forms of participation and levels of participant involvement, Table 2 shows varying levels of participant engagement with the project from recruitment to website development. Teachers who had young families, elderly parents, or who contracted Covid-19 during data collection attended fewer sessions. While all 18 teachers who participated in the OPAL study generated the framework for the website, not all OPAL participants contributed video or photographic exemplars towards the modules. Once a decision was made to build a website (in session 5), only 8 participants continued with this phase of the project, which is reflected in low attendance data for our sixth and final session. Interestingly, some teachers who expressed interest in the study but were unable to commit to the study (because of complex community or family responsibilities or personal health during the pandemic) did submit artifacts for module content in the adjacent study. Their artifact contributions are not recorded in this article but were critical to the completion of this CoP's vision for shared action.

Sessions were scheduled and loosely structured with guiding questions that were co-created by participants at the end of each gathering. Participants varied in how they chose to share their perspectives, experiences, and insights. Some prepared PowerPoint slides, while others held up artifacts of learning, and some narrated video or photographic evidence while screen sharing with the group. Several participants preferred to type their contributions into the chat rather than speaking to the group.

Sharing protocols were co-established and included putting up a virtual hand to speak, with the lead author indicating when it was the next speaker's turn. All participants were encouraged to keep their turn to under two minutes to allow everyone a chance to contribute. Comments from the chat were added to transcripts of the study; they were rich with connections and reflections of collective learning. The teacher researcher kept notes on who spoke how many times at each session, and specifically invited participants who had not yet spoken to the group to add their thoughts (or notes in the chat) before the end of each session.

Teachers reported that participation in the CPAR study countered isolation that they often felt as an OPAL practitioner. In summarizing her experience with the study, a suburban teacher in her first 5 years of teaching said, "*I've learned a lot. I love connecting. You're in your*

own little world at school every day. So, it's nice to connect with other people that are like minded" (P-16).

Table 2
Forms of Participation and Levels of Participant Involvement

Level of Participation	Researcher Action	Participant Action	Collaborative Action	Participants
Level One	Recruitment materials were distributed via partner organizations and social media	Interested teachers contacted the researcher author	Teachers were sent details of the project and asked to complete a participant screening questionnaire	N=53 expressed interest in participation
Level Two	Screening questionnaire sent to all 53 teachers who requested more information on the project	Interested teachers completed and returned the screening questionnaire	Reminder emails were sent to keep everyone's application within the established timeframe	N= 27 returned by deadline N= 2 after deadline N= 9 declined to participate N= 15 did not respond
Level Three	Selected participants were sent consent forms to participate in the study with pre-determined meeting dates	Participants returned consent forms and attended scheduled focus groups	Six focus groups were scheduled and held on a University Zoom account	N=18 (of which 17 were selected to participate, plus one facilitator/ teacher-researcher) N=1 declined to participate
Level Four	Reminder emails were sent before sessions with a summary of each past discussion and a reminder of chosen discussion topic for next meeting	Participants contributed to a shared google doc to sketch out the digital tool framework.	Participants engaged in dialogue about their practice and shared exemplars and stories of their OPAL practice	FG* 1 N=17 FG 2 N=17 FG 3 N=15 FG 4 N=15 FG 5 N=14 FG 6 N=8

Level Five	Participants were invited to join the adjacent digital project as a contributor of exemplars for the teacher.outsideplay.org modules	Participants consented to contribute to the digital tool submitted exemplars to the study team on the digital tool Dropbox portal.	Participants submitted exemplars to the study team on the digital tool Dropbox portal.	N=8 OPAL participants engaged in the digital tool process N=61 Contributors from across Canada

Note. *Focus Group (FG)

Overall, practical and explicit module themes were favoured over pedagogically complex themes in both the iteration and final design of the website. As the practical limitations of completing our goal together were realized, the 'how' of OPAL took some priority over the 'why.' Final module themes reflect a significant amount of pruning, collapsing, and editing of OPAL pedagogical intent, as understood by participants. In the subsequent and adjacent process of building the website, efforts were made to include every recommendation made by participants, but ultimately not every idea was represented.

Sessions were recorded on a UBC Zoom account and transcribed using Otter AI software. The lead author reviewed all transcripts for accuracy. A semi-structured CoP/focus group protocol was established in session one. Participants were invited to share artifacts from their practice including photographs, videos, and assessment data from their practice. The second author attended the first focus group discussion and supported analysis of data as themes were collapsed and refined. The third author attended a focus group session as the CoP moved to identify module themes and supervised the development of the website. A shared Google Doc allowed participants to begin to add module specific exemplars as themes were collapsed and consolidated. Within the CPAR process, the teacher researcher shared themes derived through analysis and made modifications based on CoP feedback.

Module development

A great deal of consideration was given to what format might be most accessible for early career teachers and teachers new to OPAL. Short, easy to understand videos were determined to be most approachable. This teacher sums up our collective decision to develop a series of short modules: "*We are in a world of consumers… if we want to have widespread access to teachers, and in disseminating this information, we should consider a documentary style tool*" (P-11).

Once a website was determined to be our path of action, it was necessary to mobilize the strengths, knowledge, and skills of community partners, recognizing the value of their expertise in the field (Raymond et al., 2022). The Digital Lab at British Columbia Children's Hospital was brought into the project to construct the website using the framework developed by the OPAL CPAR community. Funding for development of the tool was available through a grant secured by third author through the British Columbia Children's Hospital

Foundation. Data collected from the OPAL study directly informed the structure and content of the teacher.outsideplay.org website.

Through the CPAR process, a common vernacular for describing OPAL was established. Findings reported here are related specifically to the sharing of professional practice, the identification of a shared need, and the collective action of the group, and not a review of OPAL specific terminology. We encourage readers to view the modules on the website (teacher.outsideplay.org) to better understand, for example, how risky outdoor play in schools is defined and what that can look like in the school context.

Four major themes emerged as organizational frameworks for content modules. The first theme considers how risky play is facilitated in elementary schools within an OPAL pedagogy. The second theme examines practical applications for getting started with OPAL in the elementary school context. The third theme highlights how to leverage an emergent curriculum, and the final theme provides practical examples of assessment strategies for making learning via outdoor play visible. The next section describes the content of our collective action and how modules were determined for website inclusion.

Outdoor Play and Learning in Schools

Within this first thematic finding, four subthemes emerged as modules that were populated with exemplars of 1) risky outdoor play, 2) bridging risky play and learning, 3) creating yes spaces, and 4) observation and the role of the teacher in risky play.

What is Risky Outdoor Play?

Defining risky play and how it might look in the school context was an important agreed upon first module. Participants imagined video clips of risky play in schoolyards as a comfort for teachers who felt uncertain about what was aloud and not allowed. This module was designed to offer a concise definition of risky play, to emphasize the benefits of risky play for children, and to share examples of risky play in the school context. Mentorship for risky play, particularly with other people's children, was most often effective alongside more seasoned colleagues. Teachers wanted the module to show what risky play could look like on school grounds to remove some of the negative bias that surrounds playing with sticks or letting children climb trees when there is not necessarily agreement among staff about what risky play should be allowed. The supervisory tension described here led to discussion questions for professional dialogue being added to each module. One participant explained that,

> *…play that comes up can be difficult to manage as a teacher when there's some supervisory tension and you need some guidance on how to resolve it. An example could be climbing, it's one of those things where people's risk tolerance really varies. And so how do people address that? How do they risk manage? What conversations do you have with kids and colleagues so that it's a collaborative discussion? I think we should show how everyone kind of co-creates parameters, and then you follow up. We should highlight how you're not just saying yes or no to sticks, you constantly revisit it based on the context of place and people.* (P- 16)

Bridging Risky Play and Learning

Bridging risky play with curricular learning emerged as an important subtheme, reflecting how teachers in this study believed both curricular learning and competencies for learning were meaningfully embedded in risky play. Teachers felt strongly that once other teachers were able to 'see' the learning, they could not then unsee it. This ability to see curricular learning which emerged in risky play was gathered in collaboration with mentor teachers experienced with OPAL. A seasoned teacher experienced with mentoring teachers in OPAL reflected:

> *I think teachers can breathe deeper when they can see, 'other people allow this to happen, and I can feel relaxed, and the kids can feel joyful. I don't have to micromanage behaviour outside.' Risky play just feels so tense for teachers. Those early (mentoring) discussions can get them to a place where, 'oh, this is the real purpose now, the children are learning, I can just step back and observe curricular and social skills.' There are so many competencies for learning children acquire through risky play*. (P-16)

Creating "Yes Spaces"

Thematically, "yes spaces" capture the complexity of trusting children to make good choices, while also understanding they might not have the maturity to consider how their actions impact other people or the environment. "Yes spaces" offer an opportunity for schoolyards to co-create spaces where sometimes challenging behaviour is allowed, thus giving supervisory adults a way to redirect behaviour without always having to say 'no' to children's play. For example, one participant shared,

> *We designate a snowball throwing field. If you want to throw snow, it stays in this designated space. The kids know that behavior is allowed here, but other kids who don't want to engage in it can avoid it. When we're not ok with the pushing and shoving that sometimes happens indoors, we can say, 'hey, that's outside play. We do that outside.' So we can begin to limit rough play inside without constantly having to say no to all play…We can introduce some of those classroom management pieces that are easier when OPAL is established.* (P-12)

Observation and the Role of the Teacher in Risky Play

Teachers in this study were critical of romantic ideals suggesting that nature and children inherently belong together, and frequently spoke of the teacher's environmental responsibility to ensure children understood how to balance nature play respectfully and responsibly with an ethic of care for the land. In considering the tremendous impact children can have in natural spaces, this teacher offered:

> *If we are creating a how-to guide, we need to be really clear that there are repercussions and there are environmental impacts when we take habitat and change it. I think we need to … explain what that entails. It may mean that those sticks are there, and we leave them there. So, I want to be cautious that we don't*

> *encourage people to just clear away branches and sticks without thinking about the habitats and ecosystems they are disrupting.* (P-10)

Getting Started

Teachers in this study shared their extensive expertise navigating known barriers for getting started with OPAL in the school context. Within this thematic finding, the six most common OPAL challenges became modules that encourage teachers to consider anticipating and taking steps to mitigate potential barriers to this work. These findings resulted in the following six subthemes: 1) preparing for all weather, 2) core routines, 3) rural and urban hazards, 4) grab and go resources, and 5) finding like-minded colleagues.

Prepare for All Weather

Teachers in this study experienced different barriers to access OPAL, but a common challenge was taking learners outdoors in inclement weather. Teachers in this study reflected on the importance of building core instructional routines for going outdoors, while collecting a sensible stash of all weather gear to support all learners over time. One teacher offered:

> *Start with what you have. I think it's really critical for the tool to emphasize 'these are things that help but they shouldn't be a barrier to get started.' If you're just getting started, you can get started on a sunny day. And then advance towards being out frequently, like during difficult weather. You'll get there eventually.* (P-11)

Core Routines

Broad, basic routines applicable across K–8 grades were debated. Core routines that extended instructional routines used indoors were determined to be important. For example, co-creating boundaries, entry routines, and safety routines all helped teachers feel secure and prepared. As this teacher highlights, simply scheduling OPAL into her weekly plans was also a core routine that ensured OPAL was a priority:

> *One of the key things that really changed my commitment was deciding that I wasn't going to wait until a future year when outdoor learning spaces would someday be provided by my school…I decided we're going to make sure that this class starts having the benefits of outdoor learning this year. And so I made a goal to make sure that at least one afternoon, minimum, a week, year round, was outdoors. And when I made that decision for myself, it was in my schedule, it was a priority.* (P-11)

Rural and Urban Hazards

Differentiating between urban and rural hazards was identified as essential to meet a professional duty of care. Participants determined that targeted and specific examples of hazards would be beneficial based on their experiences with early career colleagues who did not have a general understanding that risks had the potential to become hazards, depending on the context and developmental age of learners. Explicit examples of hazards which exist in both rural and urban school communities were curated by participants based on their lived experience.

In thinking about how to get ahead of potential reasons why parents or school administrators create barriers to OPAL, one rural teacher offered how she navigated the potential hazard of ticks with intentional routines and communication to make it clear she was considering all safety concerns, taking them seriously, and had a plan to mitigate exposure to hazards:

> *We live in the tick center of the world. And our local forest is heavily infested. Every day, we're coming in with ticks. So that's been a big part of the education piece for parents. We remind them that this is where we live and then we teach kids how to manage this local problem. We can't 100% avoid ticks, so we teach how to tuck pants into socks and how to tuck in shirts. I have spare elastics to braid long hair. We do a tick check at the end of our class where we all shake our hair and flap our jackets. We ask parents to do another tick check at home. We've had a few embedded ticks this year already. So far, no parents have really freaked out about it. But I think it's because we're in tick season and we live in tick country. But talking about it lots and getting ahead of it so that parents know what's coming is helpful.* (P-13)

Grab and Go Resources

The ability to spontaneously locate curricular learning outdoors was mentioned frequently by teachers as an important catalyst for OPAL. Having duplicate school supplies in a go bag or wagon along with first aid essentials, communication devices (cellphone or handheld radio), a class list, and emergency contact numbers were identified as ways to remove a barrier for OPAL:

> *The simple things that might be intrinsic to those of us who are skilled in outdoor teaching, like having a wagon ready, can be a game changer for teachers new to this. We've got two wagons that are always fully stocked with basic supplies at our school, like their sit pads, and their clipboards, and their pencils and guidebooks, as well as a first aid kit. So it's really easy for teachers to spontaneously go outdoors, the teacher doesn't have to think about those basic things to get out of the room. And I think that's a huge barrier we can remove for a lot of teachers.* (P-6)

Finding Like-minded Colleagues

Nearly all participants identified the importance of finding like-minded colleagues to learn with and from. Since teachers are often involved in multiple formal and informal networks, participants identified 'finding your people' as a specific way to move their OPAL practice forward. A suburban teacher participant spoke about the learning conferred from hearing a colleague tell the story of a child who picked up a needle at the beach. Learning from challenging incidents other teachers encountered was described as valuable mentorship: "*Hearing her experience and how she dealt with it made me feel way more comfortable, if that ever happens to me, I have a plan now. So, hearing from other teachers can build your own comfort around dynamic decision making"* (P-16).

A rural teacher spoke about online communities of practice and the importance of creating a website that supports educators who do not have access to the frequency and variety of professional learning often available in urban districts.

> *Finding like-minded colleagues really resonated with me and reinforced that what we are doing feels so right. And it feels like, either as a group or on our own, we can make some real change in education. And actually, because of this group, P-9 and I reached out to nearby schools, and we've reached out to P-3's school and we're going to have a visit and we are so excited about learning with them*. (P-8)

Emergent Learning

Teachers in this study were highly skilled at mapping required curricular learning onto emergent learning that was relational and responsive to the places they taught. Emergent learning was conceptualized as both predictable (seasonal change and how it affects living things) and unpredictable (watching an eagle circle above the schoolyard). Within this thematic finding, four subthemes emerged that captured the most common curricular areas teachers in this study engaged with outdoors: 1) what is emergent learning, 2) numeracy and mathematics outdoors, 3) science outdoors, and 4) literacy and language outdoors.

What is Emergent Learning?

Where casual observers of OPAL might not see the complexity of learning, teachers in this study articulated clear intentions and appreciation for the rich learning that emerged when children were provided with time, space, and freedom to play and learn outdoors. This participant summarized her positionality around emergent learning well: "*Emergent learning means being comfortable in that space of 'I don't know exactly what's going to happen. But I trust that as a group, we can turn this into a learning experience, whatever that is'*" (P-16).

Engaging children authentically in their learning came up as a critical aspect of emergent learning. For example, systems of governance at the local, provincial, and national level can be scaffolded from the experience of who has power and how decisions are being made as learners experience arguments that develop in shelter building. The same participant continued:

> *If you've got a grade seven class, and what comes up through outdoor play is 'who's in charge of the fort building?' you could tie that into your government curriculum. The teacher really needs to know their grade curriculum well. But it still comes back to kids playing and the teacher noticing where the curriculum intersects. Having a plan, but following where the play interests are, is emergent learning.* (P-16)

Authentic engagement with Indigenous ways of knowing came up frequently as a benefit of emergent learning. A participant commented on how much easier it was to centre Indigenous teachings when learning was located outdoors:

> *Instead of learning **about** stinging nettle, I consider how can we learn **from** stinging nettle. Indigenous elders talk about learning **with** the land instead of **about** the land. It's a whole different lens and perspective of learning. And I think once people shift towards that way of thinking, it does make teaching, in general, so much easier.* (P-4)

Numeracy, Literacy, and Science Outdoors

Teachers felt strongly that opportunities for cross-curricular learning were abundant when curriculum was located out of doors. Science was found to be one of the easier subjects to locate outdoors, and teachers described how they also skillfully wove literacy and numeracy concepts into emergent scientific learning*:*

> *The horticulturalist showed us a cherry tree and where it would weep. At certain temperatures, the sap runs clear, so he was showing that to us, and that's when the kids were concerned that trees might feel. That brought up the whole idea of a tree having a wound or a plant having a wound. The next few times we went out they noticed more plant and tree wounds. We brought iPads with us, and I've got my camera, so we photographed them and scaffolded our observations into a wonder. I put the pictures together and we recorded temperatures and journaled our observations.* (P-15)

Assessment

One of the most challenging barriers for OPAL identified by teachers in this study was the difficulty of making learning acquired via outdoor play visible within the system of schooling. Within this finding, two subthemes emerged: 1) how to make learning visible, and 2) the use of loose parts as an assessment tool. The use of technology was identified as essential for making learning visible in equitable ways. When collecting data for reporting purposes, videos and photos were commonly collected. Teachers also identified digital apps linked to online portfolios they variously used for parent engagement. In considering which modules should be included in the framework, a participant summarized:

> *I think assessment has to be one of them. I mean, it's always on my mind. I'm definitely always trying to improve so that if a parent or anybody asks, 'well, how do you know they're learning?' We need to provide data or information or examples that clearly show evidence. I think, for sure, that's something we should address in the tool.* (P-3)

Making Learning Visible

Participants expressed concern around a perceived lack of legitimacy photo documentation sometimes held with stakeholders, like parents or school administrators. Participants recognized the tool would likely be used by teachers beyond one provincial context of curriculum and reporting orders, so suggested assessment modules showcase exemplars of how to curate documentation of learning using technology. Documentation of how learning was shared with families and the school community was offered by this suburban teacher:

Documentation of learning is important in this work. I find it not only helps make learning visible to the students and you as a teacher, but also it's a wonderful way of sharing with families and our school community the value of outdoor learning. Photo documentation helps students begin to reflect and speak to emergent learning. For example, we encountered some stinging nettle in our garden bed, and one of my students got stung. And in this documentation (Figure 1) we added a quote from Vanessa Cooper (Indigenous knowledge keeper and elder) who shares, 'oh, I just love nettle. She reminds us to pay attention.' I'm sharing here that her words opened up ongoing conversations about our relationship with stinging nettle and our schoolyard ecosystem. And also in this documentation are some of the thoughts that kids brought forward. 'Paying attention and being afraid is kind of the same. But paying attention is not being afraid.' And then someone else said, 'being scared is letting your fear go wild.' And someone said, 'it's the opposite. Because if you're afraid, you go back, and if you're paying attention, you move forward.' (P-15)

Figure 1. Assessment Documentation submitted by P-15

Loose Parts

The use of loose parts as an equitable way for learners to communicate conceptual understanding was a common technique used by teachers in this study. Prompts or invitations were frequently followed by provision of loose parts for children to share their learning without having to write anything down. This teacher describes the importance of observation and a pedagogy of listening in her assessment process:

> *I love just sitting back and listening to what the kids are doing and taking pictures and trying to find out just by watching them what they're up to. Telling the story of that encounter through documentation of their process and discussions is how I primarily assess learning. I might offer six pictures as evidence of what they understood and add what they were talking about. And maybe questions or prompts that we asked them to spark their curiosity further into those things. I like really letting the children lead what's going on out there. My role is to document their process and make meaning of it. (P-12)*

DISCUSSION

The CPAR process undertaken in this study resulted in the creation of a community of practice. This CoP connected teachers from across BC who had not previously met one another. In sharing individual experiences with OPAL, particularly as schools were re-opening after a global pandemic, participants in this study recognized a need for an easy-to-access OPAL resource. The collective action to support elementary and middle school colleagues interested in pursuing OPAL in their schoolyard was the creation of a website. This process privileged an inductive approach to data collection because participants brought their own values and expertise to the study, which influenced how the study was facilitated and, ultimately, how the website was designed to serve as a digital colleague.

CPAR is a socially constructed form of participatory research that influences both the epistemological and ontological perspectives of researchers and participants. In this study, participants' perspectives, interpretations, and meanings did not always align, but began to take on a unified shape as a framework for the website was developed. The OPAL study provided a logistical framework for teachers to share their OPAL success stories and the challenges they encountered; this framework helped identified opportunities to target support for colleagues, which were scaffolded into the website.

Following Ladkin's (2007) theory of knowing, both experiential and practical knowledge were gained by participants in this study when they tried new approaches and engaged in dialogue to grow their own practice. Our collective ability to embrace the challenges of systemic change through dialogue and action cycles was reflected in our ability to reimagine the structures that define our systems of schooling (Kincheloe, 2008). At each gathering, participants were "actively engaged in the quest for information and ideas to guide their future actions" (Whyte, 1991, p. 20).

Schubotz (2020) argues that the voices and stories of participants are protected as central findings in the participatory approach, rather than at the margins. This active involvement is found to improve the kinds of questions asked and ultimately the answers provided. Teachers in this study engaged in professional dialogue that expanded our understanding of how generic schoolyard spaces become relational and vibrant places in the world of OPAL. These places are as varied as the communities that host them, and there is not one singular approach to OPAL that is culturally relevant or responsive to the needs of the community in which they are situated. Pedagogies of place and play require relationships built over time

and are highly dependent on educators' personal dispositions in relationship to place, highlighting a need for specific and targeted professional learning to build capacity and confidence (Zeni et al., 2023). Our collaborative action to build a website for teachers offers an example of a capacity-building effort for educational reform. Stoll et al. (2006) describe capacity building efforts as a "complex blend of motivation, skill, positive learning, organizational conditions and infrastructures of support" (p. 221).

Teachers in this study decided to create an infrastructure of support with a documentary feel to present the affordances of OPAL in an accessible way. A website without paywalls was an accessible method of communicating our findings and practice with colleagues. Teachers were also enthusiastic about the reputational strength of the website design funder. The ability of all participants to claim and share expertise within a CoP distributed the power of decision making within and throughout our collaboration. As the tool developed, check-ins with participants on the tone and structure of modules reflected key understandings of participatory action research as equitable involvement of community members working with researchers to collaboratively create an action plan (Benjamin-Thomas et al., 2018; Littlechild et al., 2015).

This study offers several important findings to the growing field of OPAL in elementary schools. Building on previous findings that identify professional friendships and CoPs as essential to this work, our participatory research emerged in response to a growing perspective that relationships in collaborative research were central to building capacity for OPAL in elementary schools going forward. Participatory research aims to bring about change, and participation in this study was linked to active citizenship and advocacy for OPAL. In this study, participants reflected on their own capacity to take action in ways that were meaningful to them. The website that emerged from our CPAR project provides concrete exemplars (via brief modules, in-depth interviews, curated discussion questions and relevant resources) of how to facilitate OPAL within existing systems of schooling.

Participants in this study saw themselves as creators of knowledge by seeing themselves as change-makers who contributed to our collective understanding of OPAL in the elementary school context. Teacher participants in this study were important collaborators who helped shape the trajectory and outcomes of the research through dialogue and action, and ultimately shaped the framework of the teacher.outsideplay.org website.

SUMMARY

This study illustrates how participation in a CPAR community of practice helped to counter a sense of isolation that participating OPAL practitioners across BC experience. It also demonstrates how collective action by educators can be fostered in a CoP with a CPAR orientation. Four significant OPAL themes emerged from this study in relationship to a need identified by our CoP: 1) examples of how risky play can be facilitated in schools and the complexity of curricular learning it affords, 2) practical advice for getting started, 3) how to leverage emergent learning, and 4) how to make learning acquired through OPAL visible. These four primary themes provided a structural framework for 16 subsequent modules that were developed.

LIMITATIONS

While significant effort was put forth to attract diverse teacher identities, the majority of participants who expressed interest and who ultimately built the framework for the website, were cis-gendered women of European decent. Participants identified their conceptual understandings of equity regarding access to OPAL, the social and emotional benefits of OPAL, ecological responsibilities of teachers, and intersections with Indigenous ways of knowing. The CoP determined these understandings should be woven through all modules rather than being constructed as stand-alone modules. However, modules focus on easy-to-implement practices, resulting in less depth into the conceptual understandings. For example, attention to Indigenous ways of knowing, while woven in all modules, could have also had a stand-alone module. We regret this oversight and encourage future OPAL research to more explicitly target Indigenous ways of learning with and from the land. Finally, teachers who participated in this study were highly skilled and motivated to share their perspectives while connecting with like-minded colleagues. The voices, experiences, and struggles of teachers who have tried unsuccessfully to engage with OPAL in their schools are not represented here.

CONTRIBUTIONS

This study contributes to our understanding of how CPAR can be successfully enacted to reduce structural and pedagogical barriers. This study also highlights the effectiveness of centring the expertise and wisdom of practicing teachers in the development of professional learning resources for teachers. Findings from this study also suggest that mentorship for teachers, by experienced teachers, is essential in removing barriers for OPAL. Future research might explore the scope of OPAL practices across Canada and how OPAL networks are effective in supporting elementary school teachers.

REFERENCES

Benjamin-Thomas, T. E., Corrado, A. M., McGrath, C., Rudman, D. L., & Hand, C. (2018). Working towards the promise of participatory action research: Learning from ageing research exemplars. *International Journal of Qualitative Methods, 17*(1).

British Columbia Ministry of Education (2020). Retrieved September 2020 from https://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/safe-caring-orderly/k-12-education-restart-plan.pdf

Burson, S. L., & Castelli, D. M. (2022). How elementary in-school play opportunities relate to academic achievement and social-emotional well-being: Systematic review. *The Journal of School Health, 92*(10), 945-958. https://doi.org/10.1111/josh.13217

Chikkatur, A., & Oliver, E. (2020). About PAR. https://participatoryaction research.sites.carleton.edu/about-par/ Carleton University.

Corbin, J., & Morse, J. M. (2003). The unstructured interactive interview: Issues of reciprocity and risks when dealing with sensitive topics. *Qualitative Inquiry*, *9*(3), 335–354.

Coghlan, D., & Brydon-Miller, M. (2014). *The Sage encyclopedia of action research*. SAGE. https://doi.org/10.4135/9781446294406

Cusack, C., Cohen, B., Mignone, J., Chartier, M. J., & Lutfiyya, Z. (2018). Participatory action as a research method with public health nurses. *Journal of Advanced Nursing, 74*(7), 1544-1553. https://doi.org/10.1111/jan.13555

Denzin, N. K., & Lincoln, Y.S. (Eds.). (2011). *The Sage handbook of qualitative research*. SAGE.

Dyment, J. E., & Potter, T. G. (2015). Is outdoor education a discipline? Provocations and possibilities. *Journal of Adventure Education and Outdoor Learning, 15*(3), 193–208. https://doi.org/10.1080/14729679.2014.949808

Gray, P., Lancy, D. F., & Bjorklund, D. F. (2023). Decline in independent activity as a cause of decline in children's mental wellbeing: Summary of the evidence. *The Journal of Pediatrics, 260.* https://doi.org/10.1016/j.jpeds.2023.02.004

Hall, B. L. (1992). From margins to center? The development and purpose of participatory research. *The American Sociologist, 26*(1), 15–28. https://doi.org/10.1007/BF02691928

Hughes, A. C., Zak, K., Ernst, J., & Meyer, R. (2017). Exploring the intersection of beliefs toward outdoor play and cold weather among northeast Minnesota's formal education and non-formal EE communities. *International Journal of Early Childhood Environmental Education, 5*(1), 20-38.

Johnson, M. T., Gallagher, V., & Appleton, R. (2019). Teaching participatory action research: Fostering impact. *Journal of Political Science Education, 17(2),* 191-212. https://doi.org/10.1080/15512169.2019.1616551

Kemmis, S., McTaggart, R., & Nixon, R. (2014). *The action research planner: Doing critical participatory action research.* Springer. doi:10.1007/978-981-4560-67-2

Kincheloe, J. L. (2008). *Critical pedagogy primer*. Peter Lang Publishing.

Ladkin, D. (2007). Action Research. In C. Seale, G. Gobo, J. F. Gubrium & D. Dilverman (Eds.), *Qualitative Research Practice* (pp. 478-490). SAGE.

Lee, E., de Lannoy, L., Li, L., de Barros, M. I. A.,, Bentsen, P., Brussoni, M., Crompton, L., Fiskum, T. A., Guerrero, M., Hallås, B. O., Ho, S., Jordan, C., Leather, M., Mannion, G., Moore, S. A., Sandseter, E. B. H., Spencer, N. L. I., Waite, S., Wang, P., . . . participating PLaTO-Net members. (2022). Play, learn, and teach outdoors-network (PLaTO-net): Terminology, taxonomy, and ontology. *The International Journal of Behavioral*

Nutrition and Physical Activity, 19(1), 66-20. https://doi.org/10.1186/s12966-022-01294-0

Lewin, K. (1946). Action research and minority problems. *Journal of Social Issues*, *2*(4), 34–46.

Littlechild, R., Tanner, D., & Hall, K. (2015). Co-research with older people: Perspectives on impact. *Qualitative Social Work: Research and Practice, 14*(1), 18-35. https://doi.org/10.1177/1473325014556791

McTaggart, R. (1991). Principles for participatory action research. *Adult Education Quarterly, 41*(3), 168-187.

McTaggart, R. (1997). Guiding principles for participatory action research. In R. McTaggart (Ed.), *Participatory action research: International contexts and consequences* (pp. 25–43). SUNY Press.

Oberle, E., Zeni, M., Munday, F., & Brussoni, M. (2021). Support factors and barriers for outdoor learning in elementary schools: A systemic perspective. *American Journal of Health Education, 52*(5), 251-265. https://doi.org/10.1080/19325037.2021.1955232

Parsons, K. J., & Traunter, J. (2020). Muddy knees and muddy needs: Parents perceptions of outdoor learning. *Children's Geographies, 18*(6), 699-711. https://doi.org/10.1080/14733285.2019.1694637

Prince, H. E. (2020). The sustained value teachers place on outdoor learning. *Education 3-13, 48*(5), 597-610. https://doi.org/10.1080/03004279.2019.1633376

Raymond, E., Tremblay, C., & Lebel, J. (2022). Optimizing older adult co-researchers' involvement in PAR: Proposed evaluation tool. *Quality in Ageing, 23*(3), 99-113. https://doi.org/10.1108/QAOA-12-2021-0092

Rudd, J., Renshaw, I., Savelsbergh, G., Chow, J. Y., Roberts, W., Newcombe, D., & Davids, K. (2021). *Nonlinear pedagogy and the athletic skills model: The importance of play in supporting physical literacy* (1st ed.). Taylor and Francis. https://doi.org/10.4324/9781003025375

Schubotz, D. (2020). *Participatory Research: Why and how to involve people in research*. SAGE Publications Ltd. https://doi.org/10.4135/9781529799682

Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: A review of the literature. *Journal of Educational Change*, *7*(4), 221-258.

Stringer, E. T. (2007). *Action Research* (3rd ed.). Sage.

Tuck, E. (2008). Re-visioning action: Participatory action research and Indigenous theories of change. *The Urban Review, 41*(1), 47-65.

Watters, J., Comeau, S., & Restall, G. (2010). Participatory action research: An educational tool for citizen-users of community mental health services. https://umanitoba.ca/rehab sciences/media/par_manual.pdf University of Manitoba.

Whyte, W. F. (1991). *Participatory Action Research.* Sage.

Zeni, M., Schnellert, L., & Brussoni, M. (2023). "We do it anyway": Professional identities of teachers who enact risky play as a framework for education outdoors. *Journal of Outdoor and Environmental Education,* 26(3), 341-358. https://doi.org/10.1007 /s42322-023-00140-6

BIOGRAPHICAL NOTE:

Megan Zeni is a PhD candidate in the Faculty of Education at the University of British Columbia. Her dissertation research included collaboration with practicing K-8 classroom teachers to capture how pedagogies of place and play are enacted through outdoor play and learning in elementary schools. Megan has over 25 years' experience as a professional K-7 educator, is widely known for her expertise in school gardens and risky play at school, and is currently employed as an Early Learning & Curriculum Consultant within a Canadian public school district. To learn more about her work, visit https://meganzeni.com

Dr. Leyton Schnellert is an Associate Professor in the University of British Columbia's Department of Curriculum & Pedagogy and Eleanor Rix Professor of Rural Teacher Education. His scholarship attends to how teachers and teaching and learners and learning can mindfully embrace student diversity and inclusive education. His community-based collaborative work contributes a counterargument to top-down approaches that operate from deficit models, instead drawing from communities' funds of knowledge to build participatory, place-conscious, and culturally sustaining practices. Dr. Schnellert has been a middle and secondary school classroom teacher and a learning resource teacher K-12. To learn more about his work visit: https://leytonschnellert.com

Dr. Mariana Brussoni is a Professor in the Department of Pediatrics and the School of Population and Public Health at the University of British Columbia. She is an investigator with the British Columbia Children's Hospital Research Institute. Mariana's research investigates child injury prevention and children's outdoor risky play, with a special focus on promoting equitable access to outdoor play. To learn more about her work, visit outsideplay.org