Empathy Capacity-Building through a Community of Practice Approach: Exploring Perceived Impacts and Implications

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Abstract: Empathy can be a powerful catalyst for caring action toward wildlife and nature more broadly. Given the critical developmental period of early childhood, interventions that build the capacity of educators to support empathy development in young children are needed. We report on an evaluation of an empathy-focused Community of Practice (CoP) that engaged 15 regional early childhood professionals (including four zoo preschool staff) in the co-creation of empathy practices that are deepened through a 'Two-Worlds' (Indigenous and Western) approach. Ripple effect mapping was the evaluation approach used, as its participatory nature and emphasis on reflection were well aligned with the CoP approach. The results suggest CoP participation influenced teachers' capacity for supporting empathy development, which rippled outward from teacher-level impacts to positive impacts on children, families, and beyond. We also offer reflections on the use of a CoP approach to build individual, organizational, and community capacity for supporting empathy, as well as on the conduciveness of ripple effect mapping for evaluating capacity-building professional learning in the context of empathy conservation.

Keywords: empathy; empathy conservation; early childhood educators; capacity-building; community of practice; ripple effect mapping

1. Introduction

1.1. Empathy and Conservation

Empathy is a stimulated emotional state that draws from the ability to perceive, understand, and care about the experiences or perspectives of another [1]. The construct of empathy has entered conservation discussions, practice, and research in two different contexts. One is the compassionate conservation movement that aims to shift conservation biologists' decision-making from a utility-based to a moral-based practice, grounding conservation management actions in empathy and compassion [2]. While this movement has been criticized for threatening the very biodiversity it seeks to restore and maintain [3], empathy is still widely recognized as having the potential to support pro-environmental attitudes within the public [4] and motivate individual-level conservation action [5]. The term empathy conservation is used in reference to individual conservation decisions that are motivated by empathy with nature, other humans and non-human beings, and future generations [6]. This second context—empathy as a motivator for individuals' caring actions toward animals and nature more broadly—is the context for the study at hand.

Empathy as a motivator of individual conservation action has surfaced in policymaking and behavioral economics. Empathy 'nudges' (encouraging those already acting empathetically to do so even more), coupled with financial incentives, can activate the

process of empathizing in adults [7]. Empathizing, and the resulting peer effects, are thought to influence societal conservation norms and values. These societal expectations, along with public policies, can encourage desirable individual conservation behavior [8].

In the conservation psychology literature, a growing number of studies support the relationship between trait-level empathy (a general ability to show empathy) and pro-environmental attitudes and behaviors [9–11]. Additionally, state-level empathy (transient affective reaction elicited in concrete situations) has also been linked to environmental behavior, and invoking empathy through empathic perspective-taking can influence pro-environmental attitudes and behaviors [12–15]. This research on state-level empathy often stems from altruistic and prosocial behavior theories, where behaviors on behalf of the environment are grounded in prosocial motivations rather than self-interest [16]. However, pro-environmental behavior is likely driven by a combination of prosocial and self-interested behavior, and narrowly focusing on empathy may have limited effects [17].

From a conservation education perspective, empathy has gained popularity within zoos, aquariums, and other wildlife-oriented education organizations. Through animal interactions that elicit emotional responses in visitors, these institutions can support visitors' empathy development, and, in turn, engagement in wildlife protection or conservation actions [18,19]. Empathy with animals can activate empathy more broadly toward the natural world [18]. This dispositional empathy with nature predicts biospheric concern and correlates with environmental and conservation behaviors [15,20–23]. Nature connected-ness also enhances dispositional empathy with nature, and empathy appears to mediate the relationship between nature connectedness and conservation behavior [24]. Yet, it is also widely recognized that conservation behavior is complex, and empathy may be insufficient, particularly when barriers intervene, or in the case of abstract or multi-faceted conservation behaviors. Still, empathy continues to be recognized and valued as having the potential to further humans' relationship with nature and motivate conservation behavior [15,20]. Additionally, the relationship between empathy with animals and conservation behaviors is a relatively new area of research, and more research is needed toward a more complete understanding of empathy's relationship with conservation behavior.

1.2. Developing Educators' Capacity for Fostering Empathy in Children

Beyond its links to conservation behavior, empathy is part of a broader category of prosocial behaviors integral to a more socially just, sustainable society [25]. Empathy is critical to appropriate social interactions, as it allows children to predict the actions, emotions, and intentions of others [26]. Empathy in children is also associated with comforting, altruistic, and responsive behaviors toward peers [27]. Further, research suggests empathy partially mediates the relationship between early prosocial behavior and later prosocial dispositions; thus, empathy that develops early in life likely motivates compassionate behaviors into adolescence and adulthood [28].

While children are born with the capacity for empathy, it can be strengthened and nurtured throughout their lives. Early childhood is recognized as a particularly important developmental period for nurturing empathy. With the plasticity of developing brains, early positive interactions with the world around them can provide children with a solid foundation for empathy that can be reinforced as they grow. As children's brains develop and as they are supported in their developing capacities for empathy, children move from simple affective responses to more nuanced and abstract reasoning, allowing them to predict or imagine the perspectives and experiences of humans or animals that are quite different from themselves; this cognitive perspective-taking is integral to their abilities to respond in more empathic and compassionate ways [29].

The literature on empathy offers research-based strategies and effective interventions for nurturing children's empathy with other people [30–33] and helping children develop empathy with animals [1,34]. Although the psychological processes associated with human-oriented empathy apply to empathy with animals and nature more broadly, they are not reducible to each other [35]. However, for those deeply connected to nature who see

themselves as part of nature, empathy with humans likely entails empathy with animals and nature and vice versa [20]. As such, supporting children's environmental identities also supports the development of empathy with animals, nature, and humans. Also, since many young children have an innate affiliation with nature, practicing empathy in the context of animals may support the development of empathy with humans, as children may find it easier to relate to and bond with animals [20].

Given empathy's importance in conservation and social behavior contexts, increasing educators' capacity for supporting empathy development during the time-sensitive developmental window of early childhood can be a useful strategy. Recognized as a broader need in early childhood education, there has been a strong emphasis on increasing educators' competencies for supporting young children's social–emotional development through sensitive, responsive interactions with children in their care [36]. In particular, helping educators develop skills in reflective practice (the ability to reflect on one's actions to engage in a process of continuous learning) has been emphasized. Reflective practice is broadly associated with high-quality early education and care [37], as well as with practices that support the social development of young children [38]. Collaborative reflection also has been linked to quality teaching and children's social–emotional development, as it provides educators opportunities to transform the lens through which they interpret, evaluate, and discuss their practices [39]; this is particularly helpful in a field where educators are often isolated from one another.

1.3. Community of Practice Approach

The Community of Practice (CoP) approach is a form of professional learning conducive to supporting reflective practice, increasing practitioner confidence and capacity [40], and improving teaching and learning [41]. This terminology of CoP is attributed to Wenger and Lave [42]. In their book entitled Situated Learning: Legitimate Peripheral Participation, they defined a CoP as a group of people who share a concern, problem, or passion about a topic and deepen their knowledge in this area by interacting on an ongoing basis. In contrast to viewing professional learning as a mechanical transmission of cognitive knowledge, a CoP entails situated social interaction toward authentic, motivated learning that better reflects the complexities of real practice [42]. There are three key elements of a CoP: the domain or learning need that brings members together; the community or bond that forms over time through their collective learning; and practice, or the way of acting in the world that reflects their knowledge of and engagement with the domain [43].

The CoP approach is grounded in situated cognition (learning occurs in a situated activity with social, cultural, and physical contexts), social learning (observation and modeling are primary influences on how and why people learn), and knowledge management theory (knowledge is accessed, created, and shared within the community) [44]. In other words, learning is a participatory social process involving the co-construction of knowledge, whereby identity is central to learning [43]. A CoP brings educators together around a common aim for collaboration that is genuine, inclusive, and ongoing, toward deep reflection to deepen their knowledge and skills and improve their teaching practice [45]. Beyond growth in knowledge and skills, there is an emphasis on developing an identity as a member of a community. Learning is viewed not as a process of shared cognition that results in individuals' acquisition of knowledge, but as a process of becoming a member of a sustained Community of Practice, i.e., developing an identity as a community member and becoming knowledgeable are part of the same process, with the former motivating, shaping, and giving meaning to the latter [46]. Consequently, the benchmark for evaluating the effectiveness of a CoP is the application, rather than the retention, of knowledge.

CoPs are utilized in a variety of fields and settings, such as education, business, organizational design and development, management, urban planning, government, and professional associations [47]. CoPs have many practical uses and benefits, such as helping develop a common language or methods around the domain; extending "know-how" among groups of people; increasing knowledge access and sharing power or influence

within an organization; helping people more effectively carry out their work; providing a sense of community within an organization; and fostering a sense of identity around the learning or topic [48]. CoPs have been commonly used in educational settings, toward a deeper transformation of the teaching and learning process. CoPs are also used in professional associations looking for alternatives to traditional course offerings and seeking high-value learning, such as collaborative learning through reflection on practice [49]. In this context, the CoP approach was selected for the project at hand.

1.4. Project Context and Evaluation Purpose

Advancing Conservation through Empathy (ACE) for Wildlife, a network of zoos and aquariums facilitated by Woodland Park Zoo (Seattle, WA, USA), is leading efforts in the United States to learn how empathy for wildlife can be a catalyst for actions in support of the conservation of wildlife, ecosystems, and the planet. They have supported our trajectory of early childhood-focused empathy work in the context of the Arrowhead Zoological Society's Lake Superior Zoo Preschool (Duluth, MN, USA) and embedded within the regional nature-based early learning community. Our initial work quantitatively assessed the impact of nature preschools on children's empathy toward people and wildlife [50], which led to a qualitative investigation into how nature play supports young children's empathy development [51]. This research helped justify the Lake Superior Zoo Preschool's emphasis on empathy and contributed more broadly to knowledge building around influences on empathy development in early childhood.

Recognizing that our work thus far had been grounded in Western perspectives, we shifted the focus of our work to deepen our understanding of empathy and practices for fostering empathy through respectful engagement with Indigenous peoples and perspectives; this was particularly relevant given our location on the contemporary and ancestral homeland of the Anishinaabe, Dakota, Northern Cheyenne, and other native peoples. We elected to take a Two-Worlds approach, which acknowledges the differences between the knowledge systems of both Indigenous and Western perspectives, affirms their differences, and centers each on their own integrity [52]. Using a Two-Worlds approach, we designed and implemented a Community of Practice (CoP) during the 2022–2023 school year. We intentionally selected the CoP approach, as it provided the opportunity for early childhood educators across various settings to deeply engage in discussion and critical reflection to deconstruct their current empathy strategies and collaborate with peers to co-construct an infused empathy approach for supporting empathy development in young children. (See [53] for the co-constructed empathy model and strategies that developed through this CoP; see Section 2.1 and [53] for a further description of the CoP.) An initial evaluation of the CoP indicated that our empathy-focused CoP increased and deepened educators' knowledge regarding effective practices for supporting empathy in the context of early childhood. Participants indicated that the CoP provided framing to support teaching practices they were already using and supported their agency to implement new strategies and practices. (See [53] for more information on the initial evaluation methods and outcomes).

Although participants' responses from the initial evaluation suggested a positive impact, we were interested in learning more about the broader impacts of CoP participation. Also, we wanted to know the extent to which participants' learning would continue to influence their teaching practices in the subsequent school year. Given the benchmark for CoP effectiveness being the application of knowledge, we proposed and received funding through the Advancing Conservation through Empathy (ACE) for Wildlife network, facilitated by the Woodland Park Zoo (Seattle, WA, USA), for further evaluation and reflection on the project. As such, we aimed to document the impact of CoP participation while offering reflections on the effectiveness of CoP as a professional learning strategy for capacity-building in the context of empathy conservation. Specifically, the questions driving our evaluation were the following: What is the impact of CoP participation on teachers' capacity for fostering empathy development in children? Did teacher participa-

tion contribute to impacts that rippled outward from teachers to children, families, and the community?

2. Materials and Methods

Given the importance of reflective practice described earlier, we selected ripple effect mapping (REM) as our evaluation approach, as it has a retrospective, reflective orientation. REM is an evaluation approach that visually captures the impacts, compelling stories, and ripple effects of a program on individuals, groups, and communities [54]. A Field Guide to Ripple Effects Mapping [55], which guided our methodology, describes REM as a qualitative participatory group process that documents the results of programs within complex, real-life settings.

REM engages participants using four core elements: (1) appreciative inquiry; (2) a participatory approach; (3) interactive group interviewing and reflection; and (4) radiant thinking [55]. Appreciative inquiry, or 'positive questioning', is a way of thinking about the world around us, particularly of things we appreciate and value, by asking positive questions and seeing possibilities and opportunities [56]. Instead of focusing on what did not work or what is needed, it focuses on what is working well; this becomes the avenue for change, through applying those lessons to other efforts. While appreciative inquiry can be misconceived as excluding negative perspectives and subject to positivity bias, focusing on the positive is what generates collective ideas regarding how to influence the future in positive ways [57].

The elements of a participatory approach and interactive group interviewing and reflection manifest themselves through the focus group techniques used to engage participants in processing and reflecting on their work, individually and collectively [54]. REM is a generative process, where group interviewing and reflection result in co-constructed knowledge regarding the program impact (the kind of impact and the extent of that impact). Participatory engagement is so vital to REM that the subjectivity of participants is just as important as the objectivity of the information gained [55]. Not only is REM designed to encourage individual and collective reflection, but it also often generates momentum and re-engages participants, furthering their motivation and commitment to the initiative at hand [55].

Radiant thinking, the final core element, refers to the associated thought processes that derive from a central point and form links between integrated concepts. Ripple mapping is a visual process used to depict radiant thinking, or in other words, the chain of effects resulting from a program. This mapping or diagramming process involves co-creating data between participants and evaluators, which then helps them construct meaning through a visual focus [58]. Not only does the mapping process elicit responses from participants, but it is also useful in increasing the quantity and quality of responses; mapping additionally aids participants in recalling, organizing, and reflecting on experiences [58] (for more information on these principles and the process of REM, see [55]).

REM is appropriate for community settings and offers an avenue for determining and sharing the value of a program with funders, partners, and decision-makers [59]. REM is useful in situations where both intended and unintended effects are likely, when the intervention or program is something to which people can identify their contributions, and when people are already talking about the "ripples" from the program or intervention—all of which aligned with our program context at hand.

2.1. REM Step One: Identifying the Intervention

The intervention at hand was our Deepening Empathy through a Two-Worlds Approach Community of Practice, which took place during the 2022–2023 school year, in Duluth, MN, USA. Fifteen Indigenous and non-Indigenous educators (including four Lake Superior Zoo staff) participated in this seven-month professional learning experience, co-facilitated by an Indigenous mentor. These educators engaged once a month in a shared meal to build community and honor Indigenous practices of meal-sharing, followed by

approximately two hours of discussion, critical reflection, and knowledge co-construction. Our work was guided by our Indigenous mentor, supplemented by Indigenous guest speakers, and grounded in the Natural Curiosity [34] text, which is a Canadian framework for supporting children's environmental inquiry through an Indigenous lens. We collectively worked toward a place-grounded, deepened approach to supporting empathy development in young children and infusing empathy in early learning settings. (See [53] for a detailed description of this project, including general resources on CoPs and the Two-Worlds Approach, an outline of each of our CoP sessions, and our co-constructed strategies and practices for fostering young children's empathy with people, animals, and nature).

2.2. REM Step Two: Inviting Participants and Pre-Appreciative Inquiry Reflection

We invited a subset of 7 of the 15 CoP participants to participate in the REM process. These participants were selected toward having a range of early childhood programs represented in the REM process; selection was also based on willingness to participate and commitment to what participation would entail. The seven participants were all active nature preschool teachers, representing five programs in the region. While approval by the University's Institutional Review Board was not needed given the evaluative nature of this study, our email invitation to participants included a description of the purpose of the evaluation, as well as the voluntary nature of participation.

We first asked REM participants to engage in reflective journalling over two months. Participants submitted weekly journal reflections (either handwritten or via Google Forms) documenting "empathy encounters", such as when they implemented the empathy strategies or experiences where they saw empathy interactions among children or between children and animals or nature. We also asked them to reflect on how the empathy strategies were working and to note "ripples" from this empathy work or where they saw empathy taking root. This journaling component was a departure from the REM steps outlined in the Field Guide to Ripple Effects Mapping [55]. We added this component as a way to encourage reflective practice, guide our planning of the subsequent appreciative inquiry step, and serve as a springboard for the reflection and discussion that would unfold during the appreciative inquiry. The following are three examples to illustrate this reflective journalling:

> *A child has arrived this morning with a lot of energy, not necessarily positive energy from the weekend. She is using a stick to knock on the trunks of one of the jack pine trees, and looking at me, knowing that this is breaking one of our agreements to take care of the plants. I wait and pause for a moment giving her time to decide to stop the activity, but she continues. I walk towards her, put my hand on the Jack Pine tree, and talk to the tree. "I'm sorry this is hurting you. We promise to look after you". I give the tree a hug, she puts down the stick. She gives the tree a hug too, and then I gently guide her with my hand on her back to play in a new area. She joins in hide and seek in a positive way. I can tell that this child is coming to school with experiences that were challenging over the weekend. I need to meet her where she is at. She is not in a place to hold a lot of communication right now, so gentle modeling and soft attention help her find her way and grow her empathy. This is a time where it would be an initial reaction to reprimand, but modeling is much more powerful for growing a relationship with the child, empathy, and relationship with the land.*

> *A little girl was playing under a large pine tree and heard a couple of chickadees talking back and forth. She jumped up and said, "Teacher, I can hear them singing to me!" She then proceeded to sing back and forth with the chickadees for a good 7 min or so. Another little girl heard the chickadees talking and joined in their extensive conversation before they flew across the field. She later told me she was talking to her chickadee friends she feeds in the playscape. She asked if we could make more bird feeders because she thinks they are out of food and had come to tell us. She made the connection with her surroundings and the animals in her environment and how to care for them.*

K, P, and E were climbing up a steep part along the trail where there is erosion netting. I shared that I noticed the netting was there to help protect the land. One of them wondered, "What do you mean protect the land?" I responded that the soil could wash away from the hillside and down into one of our play spaces and beyond to the creek. I wondered how we could help protect the land. Two boys realized they could jump past the netting to the trail and back to help keep the land in place. The third boy chose an entirely new route to get to the play spot and took that route each time. Thirty feet away another child overheard the conversation and grabbed a child to stop her from climbing up the netting. It may not have been the best way to help a friend make a kind choice, but her intentions showed her understanding and empathy for the land. I thanked the children for caring for the earth aloud. The behavior of that girl standing at a distance helps expand my understanding of empathy. She knew it was important to help the land in that moment, and she may not have been sure what to do, so she did what she could. It makes me reflect on times when I or others want to help and may not know what to do. In these times our empathy may not manifest as what one would expect empathy to look like (such as grabbing a person in this case), but that doesn't mean the empathy isn't there.

2.3. REM Step Three: Conducting Appreciative Inquiry Interviews and Group Reflection

Appreciative inquiry involves a process of asking questions to identify and further develop the best of what is in a program, organization, or system [55]. This step usually takes the form of an in-person gathering. Our first REM session was approximately three hours. Before the REM session, we extracted approximately 30 "empathy encounter" reflections, like the examples above, from participants' reflective journaling. We printed them out and displayed them as participants arrived for the in-person REM session. Our REM session began with a shared meal, and then participants could circulate among the displayed reflections, using Post-it notes to add their thoughts and reflections to the examples displayed.

Next, we divided participants into pairs for the first part of the appreciative inquiry process—peer-to-peer interviews and reporting. In this stage, we invited each participant to interview (and then be interviewed by) their partner, using the following two questions: How has our empathy work made a difference? What changes do you see in your program due to your involvement in the empathy CoP? After about 20 min, we convened as a group to discuss their responses to the interview questions, with participants driving the focus of the discussion. This reflection is key to the REM process, with REM providing an opportunity for not only individual reflection, but also for cumulative collective reflection, generating new knowledge, new meanings, and a deeper level of understanding within the group [55]. Participants were invited to share their replies to the interview questions, comment and add to the responses of others, or make connections across responses. Participants were then asked to reflect on and share responses to the following two questions: What are people doing differently (such as teachers in their teaching practices, children in their play, families in their interactions, etc.)? Who is benefiting and how (how is the fact that people are doing things differently affecting others?)? This group discussion was used to identify themes and build off each other's thoughts toward generating knowledge of impact. As key ideas and themes were brought forward into the group discussion, we jotted them down on Post-it notes.

Then, we re-grouped partners and invited participants to participate in a second set of interviews, this time focusing on the question: What changes do you see from our empathy work at the organizational or regional level? Participants were also invited to respond to the following question: Were there any other or unexpected changes or impacts you noticed or experienced due to your involvement in the empathy CoP?

2.4. REM Step Four: Radiant Thinking and Mapping the Ripples

While the participants were interviewing each other, we began loosely clustering the Post-it notes onto a large chart paper that was hung on the wall, beginning an informal mind map that depicted the connections among ideas. This transitioned into the radiant thinking and ripple mapping phase of REM. Ripple mapping is a visual process to depict radiant thinking, or in other words, the chain of effects resulting from a program.

After participants finished this second round of appreciative inquiry interviews, we reconvened for a whole group discussion, with participants sharing and reflecting on the ideas that arose during the interviews and bringing forward additional insights and themes about the impact of their CoP participation. As participants shared their ideas, we again jotted them down on Post-it notes. Together with the participants, connections among program effects were made, and the Post-it notes were placed on the chart paper, with effects mapped radially into "ripples". The inner ripple reflecting changes in the CoP participants (what were teachers doing differently) rippling outward to how those changes were benefiting children and their families, and then how those benefits were rippling outward to impacts into the wider community. We concluded this first REM session by asking participants to review the map thus far, reflecting on whether anything important had been missed, as well as identifying changes that were surprising to them and changes that seemed of most significance.

2.5. REM Step Five: Coding, Cleaning, and Refining the Ripple Effect Map

After the first REM session, we worked to integrate data from across the journalling and the REM session. Our data sources included journal responses from the pre-appreciative inquiry reflection, as well as their responses from the REM session's whole group discussions, participants' notes from their interviews, and the data that had already been added to the draft ripple effect map. We loosely followed the template method technique [60], in which an 'a priori' coding template is created from a subset of the data. Once the initial codebook is in place, the remaining data are reviewed, extracting segments that pertain to the evaluation questions and coding (labeling) those segments based on the initial codebook. As needed during the coding process, the codebook can be modified, with a narrowing, expanding, merging, or even deleting of the initial code set to create a final template, which usually includes broad themes composed of more specific ones [60]. While this process begins as a deductive process, it allows for inductive coding to emerge during the process [61].

Our initial coding structure included the three overarching themes of what teachers are doing differently, how those changes in teachers are benefiting others, and changes in the wider systems around us. Within those main themes, we used inductive coding to allow for the clustering of impacts to emerge. We used these coded data to revise the draft ripple map so that the map reflected the three overarching themes along with the next broadest theme within each of the three main themes. We also created a table that supplemented the map, thus allowing for both details alongside the "big picture" of the impacts.

To refine the map and table, we gathered for a second REM session approximately a month after the first REM session. After welcoming the group and sharing a meal, we updated participants on the work thus far. We also brought forward the concepts of causality and attribution in the context of REM [55]. One of the advantages of group reflection is that it can bring forward other plausible explanations or other factors that might influence how we perceive a chain of effects (for example, knowledge can be brought forward that refines or even challenges and changes the depicted chain of effects) [55]. Additionally, sometimes impacts are brought forward that may have very little to do with the program being evaluated, which can happen particularly when the intervention is complex or overlapping with other interventions. Thus, our focus was not on attribution in a traditional cause-and-effect sense (did the program cause the outcome?). Instead, we

were depicting contribution (was the program/intervention an important contributor to the observed result?) [55].

We invited participants to review the map and table as a whole and then assigned columns from the table to pairs of participants to review more carefully. Participants then engaged in a whole group discussion regarding the ripple map and table, focusing on things to change or add, theme/category coherence and consistency, and implications of the impacts (the "so what?" and "now what?"). This second gathering offered opportunities for both reflection-on-action and reflection-in-action. As explained in the REM Field Guide [55], reflection-on-action, or stepping back to reflect on a situation from an outsider's perspective, helps bring forward program effects, strengths, and challenges. Reflection-in-action brings past experiences into the present moment, with participants reflecting on how their perspectives may have changed through learning about others' experiences with the program and their perceptions of impact. Both types of reflection "promote not only shared understandings, but also generate thinking about new directions and possibilities for a program" [55] (p. 14). Additionally, both types of reflection within a group discussion serve as a system of checks and balances regarding the accuracy of the information, providing a way to discourage "group think", and instead encourage inquiry and "what if" possibilities [55].

3. Results

3.1. Framing and Context

It is vital to understand our results in their unique context. This work was created on and with the land of Onigamiinsing (Duluth, MN, USA), through a deep relationship with the Indigenous peoples, and beings of this place. Therefore, occasionally throughout these findings, we use the first language of this place, Anishinaabemowin, the language of the Anishinabe people, to describe what we have learned and our connection with the world around us. These terms are informed by our learning with and from Indigenous peoples, particularly Anishinaabe elders, writers, and speakers. These terms are related, but distinct, and speak to the interconnectedness of all beings.

For example, the Anishinaabe word Aki is often translated as 'the land' or 'Earth', but this is just a translation of the word into English thinking. Some Anishinaabemowin speakers say that Aki can translate as 'everything'. An Indigenous sense of place extends to anything conceivably related to a place [62]. Within this expansive sense of place, people, animals, plants, and other beings are understood as relatives. Indinawemaaganidog, the Anishinaabe word for all our relations, speaks to the deep interconnection between humans and the more-than-human world. "More than human" is a conceptualization used by scholars and practitioners to de-center humans, broadening our understanding of the agency and action of a multitude of beings, and reminding us that humans are but one part of the wider world. As such, this work is deeply place-based, and therefore this work and the impacts of this work may likely look different when practiced elsewhere. This is appropriate and to be celebrated: many approaches are needed, and each place and people has a unique contribution to make.

3.2. Impacts of the Empathy CoP

The ripples of this project are rich, complex, and interrelated. Thus, while the REM process usually yields a figure (a ripple map), we found it useful to communicate impacts through the combination of a figure and a table, as it was difficult to fit the extent of text needed to convey the impact within the figure. Also, it is important to note that REM evaluation is not intended to convey causality between the ripples, but instead the many ways in which the CoP contributed to changes in participants, and how those changes rippled outward. Our 'ripple effects' map (see Figure 1) is meant to evoke the ripples and depths of both the work as well as the place where and with which this work took place: Gitchi Gami (Lake Superior).

Table 1 provides greater depth and detail of the CoP impacts depicted in Figure 1. (Table 1 below is a condensed version; see the Supplementary File Table S1 for the full table.) It is organized in three columns, which correspond with the following guiding questions: (1) How were teachers impacted by CoP participation? What are teachers doing differently? (2) How are changes in teachers' empathy practices affecting others? Who is benefiting from teachers' participation? (3) What changes are we seeing (or anticipating) in the contexts that surround us? Within each column, ripples are organized by population impacted (teachers, children, families, etc.) and then further organized using the Indigenous framework of being–knowing–doing. In an Indigenous paradigm, ways of being–knowing–doing are deeply interrelated, as are these ripples. This framing of being–knowing–doing is both grounded in a Two-Worlds Approach and recognizes that
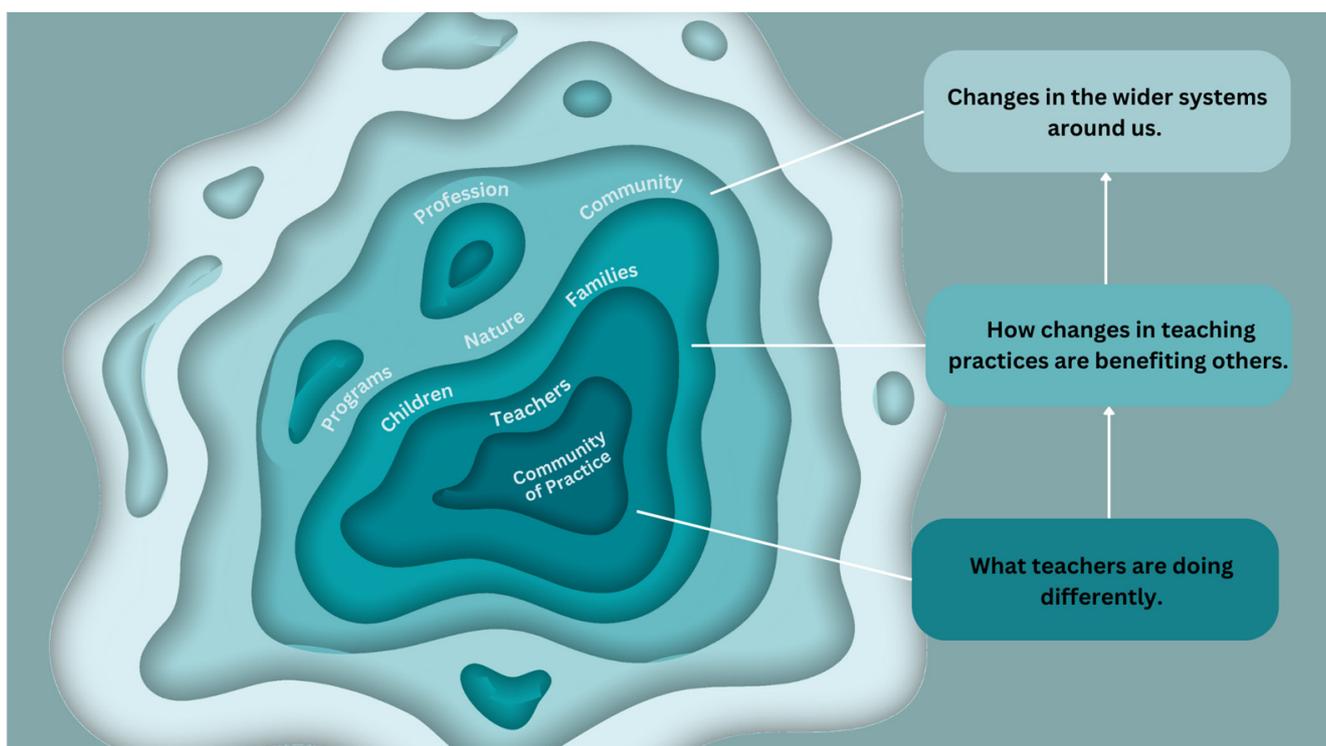
Figure 1. Ripple effect map of the empathy Community of Practice.

Indigenous peoples skillfully, diligently, and systematically observe, experience, reflect, and learn to create highly sophisticated ways of being-knowing-doing based on nature's laws. Indigenous peoples recognize and value the wisdom of nature and thus organize themselves in ways that reflect and model nature [63] (p. 394).

Further, being–knowing–doing mirrors what we know from Western knowledge about the three dimensions of empathy: cognitive (understanding another's emotions, i.e., knowing); affective (sharing the emotions of another, i.e., being); and motivational (feeling concerned for others, sometimes resulting in caring action, i.e., doing).

Table 1. Ripple effects of the empathy community of practice.

How Are Teachers Impacted by CoP Participation? What Are Teachers Doing Differently?	How Are Changes in Teachers' Empathy Practices Affecting Others? Who Is Benefitting from Teachers' Participation?	What Changes Are We Seeing (or Anticipating) in the Contexts That Surround Us?
Teachers *Being (Affective)* • Deepened valuing of empathy as a key priority of their teaching practice. • Increased dispositional empathy with the children, parents, and the teachers' own families. • Dispositions of openness, curiosity, gentleness, and empathy in their interactions. • Greater teacher confidence (sense of self-efficacy) in their teaching practice and in honoring their intuition. • Personal growth including deepened personal connection with nature. • Buoyed sense of sustainability of this "empathy work" and working in the early childhood field. • Joyfulness in their teaching and seeing beauty in this work. • Increased feelings of community inspired by their connection with other teachers doing this work. *Knowing (Cognitive)* Deepened understanding of: • what empathy is in early childhood; • children's capability to share empathy; • the importance of empathy to children's development, and for reciprocal, respectful relationships with all our relatives; • how empathy can be supported: teachers view play as empathy-building. Changed perspectives: • an "empathy perspective" frames and guides their teaching practice; • conceptualize the role of the teacher as a guide. *Doing (Behavioral)* • Slower, gentler pace of teaching and the program day. • Changes in the ways they approach interactions with children. • Application of empathy strategies. • Changes in how teachers approach connecting children with nature. • Use of stories to build relationships and teach life lessons that connect people to place. • Use of empathy as a foundation for other skill-building. • Changes in teacher–family interactions. • Ongoing reflexive practice	**Children** *Being (Affective)* • Increased regulation of their own emotions and less stressed in their learning and their life. • Increased sensitivity to the needs of others (human and more-than-human relatives). • Deepened and more empathetic relationship with the land and animals, *Indinawemaaganidog*. • Greater receptivity to receiving empathy from their peers; strengthening of friendships from offering and receiving empathy *Knowing (Cognitive)* • Increased awareness of surroundings, noticing the aliveness of the Earth, and *Aki*. • Increased capacity to solve problems and brainstorm solutions, offering ideas as to what might help peers based on their own experiences. • Increased recognition that they are capable of helping. *Doing (Behavioral)* • Demonstrating greater empathy towards peers and teachers. • Choosing more empathic and less confrontational or physically aggressive responses to peers. • Modeling peers' empathic responses that they have seen modeled by teachers. • Demonstrating greater breadth in empathic responses; sharing empathy in another's hurt and sadness, in their happiness, curiosity, and joy, in their grief, and as they encounter the cycles of life, including death. • Increased confidence and independence in empathic behaviors: Increased "stepping up" to offer their experiences and assistance to peers. • Passing empathy forward: receiving empathy and compassion and then later in the day sharing empathy with another peer. • More regulated behavior in response to empathic displays from peers. • Empathically communicating with their families about peers (sharing stories and concerns). • Demonstrating empathy with nature that extends outward to care and/or action. • Seeking out empathy from nature finding comfort or 'shelter' in nature. **Families** *Being (Affective)* • Valuing of programs not just for their provision of time in nature, but for the growth in their children's confidence, self-expression, and social–emotional skills. • Noticing, valuing, and "honoring" play, seeing beauty in how their children play. *Knowing (Cognitive)* • Increased awareness of empathy encounters during their children's preschool day, from teachers sharing stories with parents and families. • Increased understanding of Indigenous ways of being, knowing, and doing through what children bring home and through teacher interactions/communications. *Doing (Behavioral)* • Changes in interactions among family members from children bringing social–emotional skills learned in programs into home/family settings. • Changes in family life and home culture that reflect forest school/nature preschool philosophy.	**Program** *Being (Affective)* • Empathy cycle growing within the program as children grow and share empathy with the younger children. • Greater confidence as a program in being "*who we want to be*". *Knowing (Cognitive)* • Deepened understanding as a program regarding the role of empathy and reinforced commitment to empathy. *Doing (Behavioral)* • Support staff (volunteers, substitute teachers, assistants) implementing empathy strategies that they have seen modeled. • Changes in program implementation, weaving empathy into every part of the day. • Strengthened relationships within the program community including deepened family-to-family as well as family-to-program interaction and involvement. **Nature** • Wildlife and other more-than-human beings are given the space they need and are respected. Children and teachers make space for all the voices and beings of the forest. • Maintenance and restoration of land from children's, teachers', and families' actions. **Wider Community** • Teachers and administrators at elementary schools are aware of, appreciating, and excited about incoming children from these programs and the empathy skills/experiences they bring. • Formation of a community of educators and families that "*walks the same path*" prioritizing children's healthy development through play and connection to nature. • Families choosing/moving into neighborhoods that reflect nature preschool/forest school philosophy. **Early Childhood Profession** • Construction of professional knowledge. • CoP participants sharing what has been learned, expanding opportunities for professionals, teachers, the wider community, and the field more broadly to learn and experience empathy-based programs. • Teachers have greater confidence to challenge the traditional approach of early childhood education. • Potential changes in Parent Aware ratings/criteria for more room for social–emotional emphases, outdoor play, emergent learning, etc. • Professionalizing the work of early childhood educators/nature preschool teachers and providing a pathway to benefit our field as it struggles to find teachers.

4. Discussion

4.1. Limitations

It is helpful to situate our findings within the limitations of our methods. First, it is important to restate that the REM process generates contributing influences, not empirical causal links. Additionally, the REM process values participation, which is given as much

weight as objectivity. As such, it is important to recognize that these impacts stem from the perceptions and experiences of participants. While participants are closest to the work at hand and thus a credible and ecologically valid source of information, there remains the potential for social desirability bias. Also, they may have been less likely to bring forward "negative" information (although with the trust and vulnerability that had been built through the CoP, which carried forward into the REM process, it is likely that participants would have been comfortable expressing challenges as well as positive impacts.) Additionally, our REM process entailed a small sample (about half of the 15 CoP participants). Thus, it is possible that impacts were overlooked, or that this REM process carried out with the other participants may have yielded different data.

4.2. Impact of CoP Participation

Our evaluation aimed to document the impact of CoP participation on teachers' capacity for fostering empathy development in children, as well as impacts that rippled outward from teacher participation. Regarding the impact of CoP participation on teachers' capacity, our results suggest that CoP participation influenced teachers' dispositions, knowledge; skills; and, importantly, their teaching practices (or phrased from an Indigenous framework, participation influenced teachers' ways of being, knowing, and doing). Participants were implementing the co-constructed empathy strategies that had been deepened through engagement with Indigenous perspectives, which prompted changes in the ways they interacted with children in their care, including ways they approached connecting children with nature. For example, they described embracing a slower pace, with more pauses, more listening and observing, more storytelling, greeting the more-than-human relatives by their Anishinaabemowin name, modeling the honorable harvest, and letting children ask questions rather than asking the questions themselves. They indicated modeling empathy; coaching/supporting children as they practice empathy; affirming empathy expressions from children; and holding space for children to notice, wonder, inquire, and choose their own empathy actions. Teachers also indicated affirming and honoring children's capabilities, using a "stepped back" approach to support children in learning that they can help heal and help each other, recognizing that it is not just the responsibility of the caregiver or the teacher to offer empathy—children are also part of the community and capable of offering empathy to one another. Additionally, they were using empathy as a foundation for other social and emotional skill-building and engaging in ongoing reflexive practice (see Table S1 for more examples).

Participants reported that these changes in their teaching practices influenced the children in their care, with children demonstrating greater empathy toward peers, teachers, and more-than-human relatives, and exhibiting greater breadth and independence in empathic responses. They also reported changes in children's sensitivity to the needs of other humans and more-than-human relatives and a deepened and more empathetic relationship with the land and animals that extended outward to caring actions. For example, one participant expressed, "*I think we are seeing the results—we are becoming more empathic, and the kids are being more empathic, and they are more connected to the land, teachers, and other students*". Another expressed, "*I feel this learning process has helped me slow down and pause and regulate my own emotions, which ripples into the children*".

The impacts generated through the ripple effect mapping process indicate not only the impact of the CoP on teachers' skills for supporting empathy, with changes in teachers influencing the children in their care, but also a rippling outward to the parents and families of those children (see Table S1), and even further outward into the surrounding community (human and more-than-human) and profession. Participants had an opportunity to present their CoP learning and their co-constructed empathy strategies at a regional nature-based early learning conference, which also illuminated the rippling outward. As one described it, "*It transfers! It really resonates with our fellow practitioners who see empathy playing out but perhaps have not delved so deeply into what it means. It is so validating and exciting for them and as well as us*". And another expressed, "*Feedback from other teachers/stakeholders has been*

overwhelmingly positive. We hear them asking for more information, more strategies, and how they can do this themselves". While the impacts beyond teachers shown in Table 1 are likely related but not solely attributable to the CoP, the breadth and depth of impact beyond the teachers suggests the CoP supported not only individual capacity-building for supporting empathy but also program- or organizational-level and community-level capacity-building as well.

4.3. CoP Effectiveness as a Capacity-Building Strategy

In addition to documenting impact, we sought to offer reflections on the effectiveness of the CoP for capacity-building in the context of empathy conservation. Since the application of knowledge is at the heart of a CoP [49], our REM results suggest that the CoP approach is an effective form of professional learning in the context of teacher capacity for supporting children's empathy development and teachers enacting that capacity. As one participant expressed,

> *It's just enlivened every part of my teaching practice. And like so many of you are sharing, the CoP prompted the internalizing of what I was learning and the changes in my teaching. This CoP has shifted my frameworks, in my teaching practice, for sure, but even in my relationships with my family, and with my friends, and with my relationship with nature, and my understanding of the non-human relatives that I'm with every day.*

Our results further suggest that CoPs can be a "durable" form of professional learning—that the learning sticks and continues to be drawn upon in their teaching. As teachers put into practice their knowledge and skills over the subsequent year, this application in turn reinforced, deepened, and refined that knowledge.

Beyond the criteria of application as an indicator of CoP effectiveness, the concept of value creation is useful for assessing CoP learning [64]. Value creation can be assessed in terms of immediate value (learning acted upon immediately), potential value (benefits from the knowledge and skills gained that could be realized in the future), and applied value (application of the knowledge and skills to new contexts). Value creation can also be assessed in terms of realized value (reflections on how the skills and knowledge gained as a result of their participation in a CoP made a difference in their ability to achieve important goals) and reframed value (identifying and defining new criteria for success) [64].

With the timing of this evaluation being approximately a year after their CoP participation, and given the use of REM as our evaluation strategy, we used the concept of realized value to guide our reflection on CoP effectiveness. As participants reflected on the influence of the knowledge and skills gained through CoP participation on their ability to support empathy development in children, participants became more aware of the impacts, and their accomplishments became more visible. For example, one participant expressed, "*This intentional and extensive reflection helped me recognize that our empathy work is well underway; taking the time to pause and reflect makes you realize how much more we've actually learned and that we are doing more than I thought. And then when you add in all the reflections of others, and it just multiplies!*".

Additionally, in terms of realized value and through participants' reflections, we gained insight into why CoP participation helped translate their deepened knowledge and skills into the application of strategies that nurtured children's empathy development. One important theme that surfaced was the role of the CoP in fostering teachers' identity as a CoP member and having this identity become part of who they are as both a teacher and as a person, or, as one participant expressed, "*It has become a piece of who we are—there is no going backward!*" Within CoPs, an identity as a community member and knowledge/skill development are part of the same process; developing an identity as a CoP member gives meaning to the knowledge and skills being developed [49]. One participant illustrated this by stating, "*There is so much potential for long-term change because of increased capacity for teaching with empathy-centered practices. The iteration of the knowledge and practice has been so thorough that it has become an important part of our identities*". The role of identity is underscored in the professional learning literature:

We are coming to understand that learning rather than being solely individual as we have taken it to be is actually also social . . . People learn from and with others . . . They learn through practice (learning as doing), through meaning (learning as intentional), through community (learning as participating with others), and through identity (learning as changing who we are) [65] (p. 227).

This changed identity is reflected by one participant's expression of the transformative shift in how she sees herself:

I think something that really can't be emphasized enough is how much we as a teaching community are benefiting from this empathy Community of Practice. We have so many teaching communities that we are a part of as early childhood educators. There are so many demands on our time and so many trainings that we're supposed to do. And it is not often—or maybe never—that we have something this grounding, this uplifting, and this centering . . . really transformative just even in how we see ourselves.

And it seems that identity is afforded through and reinforced by the social nature of the learning—the "community" aspect. The importance of the socially situated nature of the CoP approach is reflected in the expression of another participant:

It is through connection that this work and this way of being gets strengthened and is long-lasting. Without others, the fire would fizzle. We need to grow in this work together, and we are doing this work together. It feels good to share in the responsibility (because it is a big one).

This community aspect may also be quite helpful, in light of this infused, empathy-centered teaching approach appearing unconventional. As the power of dominant discourses can constrain teaching innovations, even when motivation and skills are present [66], being part of a community and deeply identifying with that community may help overcome constraints that otherwise could be too difficult to navigate.

Time and active participation are important ingredients of being in a community. Teachers attributed the effectiveness of the CoP approach to the active rather than passive nature of the learning and its extended duration. Rather than passively receiving information, they were active in their listening, reflecting, sense-making, and sharing, and this learning was ongoing. A participant described it in the following way:

Because it was a monthly and ongoing experience instead of a one-time thing, I was able to experience, be inspired, motivated and committed in a way that I would not have, had I been a passive participant. Being invited to be an active member of a community, I had more care and connection with the work I was doing and the framework I was learning.

And another stated, "*Yes, consistent check-in, reminders, and the slow pause of learning and growing together—it became our natural way of being, just by continued conversations and intentional focus*". The literature on professional development backs these characteristics of active learning and extended duration. Teachers who participated in professional learning that was of a sustained or extended duration were more likely to implement the program or innovation [67]. Additionally, professional development that provided opportunities for collegial inquiry and connected teachers to external expertise while respecting teachers' own expertise, experiences, and creativity supported durable changes in teaching practices [68]. Similarly, a review of the professional learning literature confirms the importance of longer duration interspersed with classroom application and feedback; active rather than passive; collegial rather than independent; and grounded in teachers' prior knowledge [69].

Participants also recognized and valued the "space" that was created for openness, vulnerability, and growth: "*Being vulnerable, open, and non-judgmental in this space has been helpful, and every time we get together I feel like more and more the ideas and concepts get engrained into my memory and practice as a teacher and mother*". Another expressed, "*The CoP has offered support and encouragement to explore and learn alongside a community who shares the same aim, and that has deepened my perspectives and commitment to higher quality teaching*". As early

childhood professionals, their work can be quite isolating and challenging, and therefore the relationships that formed and the support they felt were very impactful, which seems to have contributed to the effectiveness of the CoP. Participants expressed the feeling of support from the CoP community beyond the sessions and being mindful of and drawing from their collective wisdom in weeks between the CoP sessions. This resonates with the professional learning literature and in particular the literature on teacher mentoring, which emphasizes the role of social and emotional support, as well as instructional support [70]. As described by one participant, "*After every meeting I have been excited to work on and practice the empathy strategies with the children. Every meeting would fill my cup*". In a similar vein, another expressed:

> *The energy that I get from being in community here and gaining insights and perspectives has invigorated my teaching practice. Empathy work can be draining. This practice of coming back together in community helps my waned empathy renew! Each time I leave I feel excited to practice and implement my learning. I feel so connected to this work, and also connected to my intuition and so validated in that.*

This expression seems to suggest a feeling of self-efficacy in the work at hand that was echoed by others who spoke of increased confidence in these practices, which is particularly meaningful in the context of the durability of impact. Professional learning research suggests a stronger sense of self-efficacy is associated with more of an openness to new ideas, greater willingness to experiment with new methods to better meet the needs of their students, and greater persistence and resilience when things do not go smoothly [71].

Thus, in terms of realized value, the CoP appears to be quite effective as a professional learning approach for fostering teachers' capacity for supporting empathy development in children. Further indicative of realized value is the emergence of insight into the program theory, whereby identity and self-confidence seem to be important mediators between knowledge and application, and of which time, community, trust, and deep engagement are important ingredients.

4.4. Programmatic Implications

Participants were invited to consider the range of impacts and collectively think about what can be drawn from these impacts that can inform the ongoing implementation of empathy strategies, professional learning, and long-term commitment to fostering empathy in young children. One clear theme was they recognized the opportunity and even a responsibility to share what they are learning with others: "*We need to keep practicing our strategies to create a foundation for the upcoming generation to learn from, creating these toolkits to share with other educators, going to conferences, and sharing the knowledge and information*". The desire for the continuation of the CoP was shared among participants. One expressed it in this way: "*I wish we could do this forever because it is so valuable and is such a beautiful, unique, and meaningful way to learn. I know that without it, the long-term commitment will fade*". This desire for continuation and long-term commitment to empathy-related professional learning and practice can be approached from two perspectives. Drawing from the literature on professional learning, particularly professional mentoring, one perspective is that "emancipation" from professional learning support is desired [72]. One participant stated:

> *This is why building these skills as a habit in community will transfer to a natural way of being outside of this community. The value is too great and the children are too important, therefore, that will keep this ongoing desire to foster empathy in our daily interactions with them.*

Perhaps this is where identity becomes so important. On-going implementation can happen through identity, where learning actually changes who we are—individually and collectively [65]—and thus becomes powerful enough to prompt organizational or community change from within [73], which 'emancipates' participants from the CoP at hand, as they find both community and peer support within their changed organization.

The other perspective to consider is 'emancipitation' not from the CoP itself but from the external facilitation and leadership of the CoP. A true CoP takes on a life of its own and becomes self-led and self-sustaining [74], or perhaps there is a middle ground between these two perspectives. For example, as expressed by one participant, perhaps there is "*some sort of re-visiting of the learning practices in an ongoing way so that we continue to be inspired, perhaps getting together once a year to celebrate our practice and re-energize*".

Another programmatic implication relates to the collective desire among participants for other teachers to benefit from this CoP approach and its empathy focus; one participant described it as so "*life-giving*" that they wished all teachers could experience it. Another indicated, "*If we could get more educators engaged in deep, trusting conversations, we would all benefit*". Thus, we are mindful that while the CoP approach can be deeply impactful, it is a professional learning approach that takes time—time for the group to become a community and time for that trust and deep engagement to unfold. We are also mindful of how deeply place-based this work is, and that this work (whether it is strategies to foster empathy or a CoP approach to professional learning more broadly) will look different when practiced elsewhere. Thus, participants felt it was very important to suggest that others interested in this work consider the Two-Worlds approach and do so through respectful and reciprocal relationships with the Indigenous peoples where they live, work, and play.

4.5. Research Implications

Several research implications stem from this evaluation as well. As noted previously, REM generates contributing influences instead of empirical causal links. Thus, future research might explore some mechanisms, pathways, and effect chains suggested among the impact ripples. Another research angle might consider how the REM process can be used to create, refine, and/or evaluate a program's theory of change. Participants also had ideas emerge that could be explored through further research. For example, while the focus of our REM process was in the context of empathy and given the research that links empathy and connectedness to nature, further research might explore the impact of this empathy-focused work on participants' own connectedness to nature and how participation affected their relationship with our earth. There also was great interest in exploring how children bring these empathy dispositions and skills and even a "culture of empathy" to their future kindergarten classrooms and elementary schools. Relatedly, future research might explore impacts on children directly, rather than through the lens of teacher perceptions, and whether different educational settings or cultural contexts influence impacts.

4.6. Use of REM for Evaluating Professional Learning in the Context of Empathy Capacity-Building

We intentionally selected the REM approach for this evaluation, as its core elements aligned so well with the CoP approach. While REM was useful for documenting CoP impacts, its benefits extended far beyond that primary use. One key benefit was the REM process facilitated reflective practice. Through journalling and the appreciative inquiry process, participants were engaged in interpreting, evaluating, and discussing their practices, all of which are important elements for effective professional learning and implementation of new teaching practices [67]. One participant noted, "*It has required me to take time to reflect. Before, I often felt I didn't have the time*". Others similarly noted how useful the journalling was: "*It got the pen in my hand! I have always wanted to do more reflecting, but this forced my hand in the best way*", and "*It made me stop, think, and reflect on each situation and how the children learned in that moment*". The reflective nature of the REM process supported learning—a deepening of understanding and refinement of strategies, and even a ground-truthing of the model they had co-constructed [53]. For example, one participant commented, "*I have such a deeper understanding and perspective on what empathy is and looks like. It helped me notice empathy doesn't always have to be big; most of the time they are small interactions*". As another example, a participant shared, "*It helped solidify that play*

inherently affords empathy practice for children. And it was so present that it was almost in all of the children's play".

In reflecting on the knowledge and skills gained and on the difference participation made in terms of their ability to support empathy development in children, participants also became more aware of the impacts, and the fruits of their learning became more visible. For example, one participant expressed, "*The journaling over January and February was beneficial because I got to really see the small but profound moments of empathy that I may have otherwise missed*". Another participant stated:

> *REM helped in my reflection and application of the empathy strategies. It was valuable to recount stories to see how the strategies impacted outcomes within the group and individuals. I liked circling back through the ripples in community to deepen understandings and learning. It offered meaningful support to see the strategies in action. It is exciting to consider their impact in the future.*

This resonates with the reflection-in-action and reflection-on-action described in the Field Guide to Ripple Effects Mapping [55], and how powerful both types of reflection are together. As such, the reflection and increased awareness of impacts seemed to help keep participants connected to their work and generate momentum. As explained by one participant,

> *REM provided time to reflect, to see and understand that empathy is all around me, every day. This process helped me intentionally focus on the positive outcomes of empathy. It helped me to know that the work, time, and effort put forth in nurturing empathy in our community is worth it. That adds so much momentum to my efforts.*

Relatedly, another benefit of the REM process is that it served to re-energize participants and deepen their motivation and commitment to nurturing empathy development in young children. It was very aligned with the collaborative nature of the CoP:

> *REM provided an opportunity for re-connecting. It was so good to learn and feel deeply validated and connected to the others in the CoP. It really helped my well of empathy fill up each time we came together for REM and shared our work and story.*

In essence, the REM acted as a seamless extension of the CoP, and even as an intervention in and of itself, helping participants not only refine their understanding of empathy strategies but also providing an opportunity for participants to think reflexively and re-engage with the empathy work. When evaluation is often not something that participants enthusiastically embrace, to have participants not just participate but deeply engage in a generative, co-creative evaluation process that celebrates their accomplishments is very meaningful. This is illustrated through the words of one participant who stated in response to the REM process, "*I have loved being a part of this co-creation. Thank you for the gift of this opportunity, community, and learning!*".

5. Conclusions

Empathy can be a powerful catalyst for prosocial behavior and caring action toward wildlife and nature more broadly. Since early childhood is such an important developmental window, interventions that build the capacity of educators to support empathy development in young children are needed. Our findings suggest a CoP approach can be an effective way to build teachers' capacity for supporting empathy development, with other positive impacts that ripple outward beyond teachers to children, families, and beyond. Additionally, we found REM not only conducive to evaluating an empathy capacity-building initiative but also transformative in its ability to renew commitment to this work and have a positive, catalytic effect on participants. Because this CoP approach can be deeply impactful, other conservation education organizations and programs may find it applicable in their efforts to build educator capacity for supporting empathy development. Yet, this project was also deeply place-based, and this work likely will look different when practiced elsewhere. Thus, the 'Two-Worlds' approach alongside the CoP approach can

help situate the work within place and people, so that respect and reciprocity ground the understandings, dispositions, and skills that follow.

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