

Early childhood teachers partnering with teacher educators to connect children to taiao (the natural world) through place-based learning.

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Initial cycles of an action research project brought together local early childhood (ECE) teachers, and tertiary ECE teacher educators, to explore possible uses of the Ōtātara Outdoor Learning Centre (ŌOLC), adjoining the campus at Hawke’s Bay’s Te Aho a Maui Eastern Institute of Technology (EIT), Napier, New Zealand. EIT is situated below Ōtātara Pa, a historic site that holds cultural and historical significance for local Māori, specifically Ngati Pārau Hapū and Ngati Kahungunu Iwi. Education in New Zealand is underpinned by commitment to Te Tiriti o Waitangi (Treaty of Waitangi), ensuring that the principles; partnership, participation and protection of kaupapa Māori are supported through bicultural curricula. Māori holistic perspectives strengthen this focus and shifting understanding that place-based learning authenticates environmental approaches to education and cultural knowledge. During the first meeting, participants walked the hillside site and shared group discussions. From these conversations, the teachers identified three main themes: establishing connections between children and the physical place, new opportunities for teacher learning and challenges to implementing spontaneous teaching and learning in this unique environment. Future cycles of the research will focus on workshops for teachers to address these themes for teachers’ working with children in the space.

Introduction

This article describes the initial cycle of an action research study with early childhood teachers in Hawke’s Bay, New Zealand and tertiary teacher educators from the Bachelor of Teaching Early Childhood Education [BTECE] at *Te Aho a Maui Eastern Institute of Technology* [EIT] Taradale in Napier, who have a long-standing collegial partnership with Hawke’s Bay’s early childhood sector. The early childhood programme offered at EIT utilised this outdoor space as a learning environment even before the Outdoor Learning Centre [ŌOLC] institutional initiative began. A campus-wide institutional initiative at the Taradale EIT campus has been initiated to further partnerships with the Hawke’s Bay community, including early childhood education teachers, to study ways to utilise the new learning environment.

The ŌOLC is a space rich with Māori cultural history, which lies between the EIT campus and the Ōtātara Pā, a historically important and once-populous Māori community prior to European settlement (Parsons, 1997; Pishief et

al., 1997). As such it offers a combination of cultural perspectives on te taiao (nature), and whenua (land). Today this place still reflects principles of tūrangawaewae (belonging to the space), and of kaitiakitanga (care or guardianship), for the environment in which people live.

Figure 1. Ōtātara Outdoor Learning Centre (Photo: Postlewaight, 2020)



The collage of images of the ŌOLC (Figure 1) shows a variety of learning spaces and natural resources available for outdoor teaching and learning. The aerial view, bottom-right, shows the treed area of the centre, situated on the hill slopes above the main EIT campus. The picture upper-right shows the driveway up from the main campus to the new buildings past the old Hetley homestead. At top-left the renovated log cabin can be seen (Bahho & Vale, 2020), and below that the open-air learning space opened late 2020. The gully behind these is being replanted with New Zealand native plant species.

Early childhood education, place-based learning, nature and culture

Globally and locally, urbanised children increasingly lack natural, outdoor experiences in their growth and development (Curtis & Carter, 2003; Ritchie, 2013; Streelasky, 2019). Today Aotearoa New Zealand pays greater attention to the wisdom of Māori culture and values in respecting the natural environment and the significance of the learning and experiences that can occur. These values intersect with concerns about environment and climate (Bishop & Glynn, 1999), corresponding to the emphasis of the early childhood education curriculum; *Te Whāriki: He whāriki mātauranga mō ngā mokopuna o Aotearoa/ Early childhood curriculum* (Ministry of Education [MoE], 2017) which identifies that cultural values, nature and sustainability interweave (Sutcliffe, 2020; Waite & Goodenough, 2018).

Louv's (2005) evocative description '*Last child in the woods*' speaks of lost childhood connections to nature, and reflects this broad concern. For example, Kane and Kane (2013, para. 1) refer to:

Forest Schools that have no walls; children are outside in the woods all day, in all seasons and in all weather. The focus is on play using only what is found in nature, thus nurturing fantasy play, creativity and a heightened sensitivity to the earth.

Brownlee and Crisp (2016, p. 41) emphasise the need for such play to be “unstructured and self-motivated,” with teachers’ interactions being minimal and intentional, such as provocations. Sherfinski et al. (2022) stress that children’s unconstrained interactions with the natural environment enriches their ability to represent their understandings in play. Their research demonstrates how children’s expression is represented in multiple curriculum areas, such as art, block play, communication and draws on their funds of knowledge and lived experiences (Sherfinski et al., 2022)

Such learning environments are underpinned by the premise that children’s connection with, and exploration of, nature offers opportunities to develop learner identity, tūrangawaewae and empowerment, enabling assimilation of knowledge, skills, attitudes, dispositions and working theories (Carr & Lee, 2012; Hayes, 2015). Significantly, place-based learning, which also encompasses whakapapa (knowing who you are, and where you belong), underpins the ethos of *Te Whāriki* (MoE, 2017). Place-based learning, such as those visible in Braithwaite’s (2014) study of children’s engagement with learning through play in a local bush area, exemplifies meaning making through understanding the rhythms and context of the natural world. The relevance of natural place-based learning approaches, is that children will be the decision-makers of the future and that their assimilation of sustainable and cultural values will determine ecological outcomes for human existence (Pelo, 2013; Prince 2010).

Te Whāriki (MoE, 2017) endorses experiences, that with intentional assistance from teachers, offer opportunities for children to set their own challenges and manage their risk in play. In practice, early childhood education in Aotearoa New Zealand must meet regulatory, licensing and curriculum framework for planning and maintaining outdoor environments (Hanrahan et al., 2019; MoE, 2008a, 2008b). These also apply to taking children on excursions into the wider community. However, this framework of care can also be a barrier to children’s opportunities if early childhood teachers choose not to undertake excursions due to the difficulty of complying with restrictions. Further, the constraints may inhibit enabling and supporting children’s exploration and self-management through the level of perceived risk, and the beliefs and values of the teachers’ as to children’s competence (Terreni & Ryder, 2019).

Method

Educational action research is underpinned by constructivist theory, which in this instance involved applying an interactive learning and collaborative approach between teachers and practitioners (Flewitt & Ang, 2020; Mutch, 2013). The regional early childhood programme together with EIT’s institutional commitment to develop the Ōtātara outdoor nature site, provided the rationale to ascertain interest in and opportunities for local early childhood practitioners to use the outdoor area for visits and learning experiences for children in their care (Postlewaight, 2020).

All Hawke’s Bay early childhood education settings were invited to participate in exploring this research question:

What possibilities and opportunities could early childhood teachers create to utilise the ŌOLC as a learning space with young children?

Collaborative inquiry:

A major focus of the ŌOLC is the relationships with the local Hawke’s Bay community. The sociocultural approaches to the research, including cultural and ecological considerations (Bishop & Glynn, 1999), empowered participant involvement in the research process. These included physical exploration of the ŌOLC environment for subsequent kōrero (discussion). This welcomed participants into the project and de-formalised the exchanges. Further, pairing participants helped combine what they had seen and felt with ideas they had formed about how to use this space for their teaching and learning purposes. Baum et al. (2006, p. 854) named the value of such participatory action research:

[It] seeks to understand and improve the world by changing it. At its heart is collective, self-reflective inquiry that researchers and participants undertake, so they can understand and improve upon the practices in which they participate and the situations in which they find themselves. The reflective process is directly linked to action, influenced by understanding of history, culture, and local context and embedded in social relationships.

The interactive approach undertaken enabled the teachers to debate possibilities, opportunities and challenges for them when guiding children’s learning during visits to the ŌOLC. The study was planned to avoid a top-down research approach, instead “situating teachers as scholars and knowledge producers” (Manfra, 2019, p. 164).

Participants and ethics:

The participant group comprised eight teachers and two managers from across the Hawke’s Bay region, all with long-standing partnerships with EIT’s early childhood teacher education programme. Research ethics approval was received from Te Aho a Māui EIT.

First stage—field work:

Our hui (meeting), began with a karakia (blessing) and waiata (traditional te reo Māori song) to bring the group together in the space for the mahi (work) we were about to undertake. Armed with pens, clipboards and enthusiasm, participants and researchers set off from the ŌOLC open-air learning platform to explore the greater ŌOLC space (Figure 2). As facilitators for the group it required effort to manage our desire to actively participate. Our own teaching of student early childhood teachers and constant reflection on the possibilities offered by this new space meant researchers struggled to remain quiet as the teachers playfully explored the environment and recorded their responses.

Figure 2. Focus group first stage—exploring Ōtātara outdoor space (Photo: Postlewaight, 2020)



Second stage—conversations:

We returned to the log cabin for refreshments and *kōrero* (conversations), where teacher participants shared their ideas and notes in response to questions used to frame the fieldwork and discussions. Figure 3 shows the process of *kōrero*, done in a relational way, *kanohi ki te kanohi* (face to face). This convivial intimacy the group shared, provided a fusion of researchers and participants that would not be the case in an ‘arms-length’ study done by professional but uninvolved moderators. In sociological terms this leveraged the ‘insider’ versus ‘outsider’ perspective to gather and interpret information (Blythe et al., 2013).

Figure 3. Focus group—Second stage, Ōtātara Log Cabin (Source: Postlewaight, 2020).



The following questions structured the exploration activity and later conversations:

1. Do you think early childhood teachers would be interested to bring a group of children to this space (the ŌOLC)? Yes/No; Why? /Why not?
2. Regardless of your answer to the first question, what possibilities, opportunities and benefits do you envisage from bringing children to the ŌOLC?
3. How might teachers use this space with children?
4. How much educational value does this environment offer?
5. What do you see as the pros and cons of this environment?
6. What other opportunities for early childhood children do you think could be offered at the ŌOLC?

The second stage involved de-briefing, organising and transferring notes. Questions and learnings jotted down during exploring were written up on display sheets. Eating and discussing together extended thinking further. While working in pairs participants added their own views and compared their ideas. When we reconvened for plenary discussion as a group, other ideas outside the confines of the questions were also aired to support the creative vision of empowering young children to value and enjoy learning in this natural environment.

Our final discussion focused on the opportunities for further learning for the teachers that would enable them to bring children to the space. These ideas and the notes from clipboards were collected and recorded on large sheets of paper.

Thematic analysis of the material collected enabled us to organise our understanding (Braun & Clarke, 2021). As Mutch (2013) notes, thematic analysis “is also called constant comparative analysis or grounded theory” (p. 164).

The process enabled researchers to examine differences between themes that emerged. This, in turn, illuminated the perspectives and needs of participants in relation to the research question.

Findings and discussion

A distinctive feature by which the group sharing process was achieved was through participants pairing-up. They brought excited responses to what they had seen, smelled, touched and heard during the exploration of the physical space at the ŌOLC. This process also revealed specific questions and personal possibilities that resonated with individual teachers: how *they* would make use of the space, or things *they* would do to achieve the opportunities their inspiration had uncovered.

Three main themes emerged from responses to the questions: first, possibilities for connection with nature including sustainable practices, nature play, exploration and place-based learning for children; second, opportunities for early childhood teachers' own learning and sharing; third, naming challenges in using the ŌOLC outdoor space so that it would successfully introduce children to nature and the physical environment.

Possibilities for connection with nature, sustainable practices, play, exploration, and place-based learning for children

This theme emerged from participants recognising that today's urban living has decreased familiarity with outdoor natural surroundings, for both teacher participants, as well as for children. Sedentary modern lifestyles based on quiet technological leisure activities were acknowledged to have accelerated this loss (Ritchie, 2013). Participants explored what Louv (2005) termed "nature deficit disorder" and ways it "can be recognised and reversed individually and culturally" (p. 34). These findings resonated with evidence from New Zealand Forest Kindergartens (Braithwaite, 2014) and Iranian Nature Schools (Burns & Manouchehri, 2021), which indicate that rapid urbanisation causes children to lose connection with nature.

Responses to the guiding questions about the distinctiveness of the ŌOLC space were noted during outdoor exploration, while others emerged in the discussion stage. The significance of the observations of the unique opportunities for learning is affirmed in Gray's (2015) explanation that, "the things that children learn through their own initiative in free play cannot be taught" (p. 5), even with clever adaptation of resources and wonderful indoor environments. Participants described the multiple opportunities for children and teachers to connect with nature, citing grass, hills, water and wild, varied environments as possibilities for free exploration and fun. They envisioned children: lying in the long grass – cloud watching, fossicking for insects in rotting logs, discovering fungi and plants, making huts and exploring the path and step areas. Other comments describe opportunities for sensory learning and possibilities, being immersed in nature's cycles, the seasons, and scientific exploration, including classification.

Possibilities for play, child-led exploration and risk-taking or risk assessment were discussed in relation to the opportunities offered in wide open spaces. Participants made comparisons, noting that the outdoor spaces of some early childhood settings can be small, consisting of resources offering limited, highly structured, non-risky experiences on human-made surfaces. There is a disconnection in such minimum environments and Anita Rui Olds' principle that we "design spaces [environments] for miracles not minimums" (Curtis & Carter, 2003, dedication page).

The contrasting possibilities the ŌOLC offered, to these inadequate natural experiences for children, possibly influenced participants' identifying multiple opportunities for spatial play experiences in this space. Specifically, they described: tree and hill climbing, rolling down the grassy slopes and imaginative play from the open-ended resources (loose parts), such as leaves, sticks, hidey-holes and the sounds and smells, within the environment.

In many ways the title of Gray's (2013) book *Free to learn: Why unleashing the instinct to play will make our children happier, more self-reliant and better students for life*, sums up values participants identified. Participants identified the learning possibilities for joyful play, honouring outdoor places through acknowledging the power of place, plants and creatures, and a sense of belonging to nature. In one way this meant that nature becomes the teacher, facilitator and nurturer of children's growth and development as they experience a more holistic engagement with the outdoors rather than a set of artificial relationships. They acknowledged their exploratory experiences had contributed to formulating these understandings.

The teachers acknowledged that the value of the space lay in its proximity to local early childhood settings. Multiple comments highlighted the importance of children connecting with this place which holds significant cultural value for local Iwi and Hapū, noting that this makes it a unique and special space. As Ritchie (2013) identified, in Aotearoa New Zealand Te Ao Māori (Māori world) perspectives include a connection to, and a relationship with the natural world. These deep connections, for Māori as tangata whenua (people of the land) include: Papatūānuku (mother earth) and ngā Atua (gods or guardians), whakapapa (genealogy), mana (dignity), and ultimately empowers them to commit to protecting it, kaitiakitanga. Participants discussed how experiencing and embracing kaitiakitanga through encountering the seasons, being involved in the planting of the area (which happens with the local community at various times throughout the year) would enhance their sense of belonging and self-identity. Further, they recognised that hearing and sharing of local pūrākau of history and place would contribute to children's growing understanding of manaakitanga, an ethic of respect, care and generosity, and whanaungatanga, authentic relationships, for the whenua and with the children and adults. Participants noted that the connection to the Ōtātara Pā site would offer further opportunities to build on this learning. Pelo (2013) affirmed how for children, that connection is deepened and enriched through place-based learning. This intimate knowledge of themselves and natural spaces enhances children's wairua (spiritual self). Participants recognised how place-based learning at the ŌOLC would offer opportunities for children to grow and develop holistically.

Opportunities for teacher learning

Responses to the questions identified how the ŌOLC space can link to sociocultural pedagogy such as culture, learning, environmental understanding and connection to Māori cultural appreciation of te taiao and te Ao Māori, for both children and teachers. In the debriefing stage of the process, participants recounted past personal experiences they had enjoyed, both as children and adults, that they could see being utilised when bringing children to the ŌOLC site. These ventures match Brownlee and Crisp's (2016) contention that the breadth of learning opportunities in nature comes through the exploration and appreciation of teachers using and enjoying nurturing themselves in outdoor spaces with children. For Brownlee and Crisp (2016) this is how a teacher's personal identity can become a professional teaching skill when working in an outdoor space. They explain "[A]dults who love nature

and children are ideal guides for children in nature. They know when to stay silent, when to wonder, when to add bits of lore, and when to reveal more about the plants and creatures” (Brownlee & Crisp, 2016, p. 94).

However, participants recognised that they had limited knowledge of the Ōtātara Pā area and ŌOLC site, stating that they wanted their own opportunities to learn about this place: the cultural significance, the history, how to respond to children’s discoveries and how they could build their own cultural competency. This was a separate emphasis, alongside being and learning in this space with children. The group identified a number of ways individual participants could envisage the outdoor space being used as ‘a focus for sharing and learning with tamariki (children) and their whānau (wider family), and for their own learning as professional teachers to engage with learning and curriculum experiences’. Further suggestions included having available books and charts for identification of flora and fauna with children.

In conversations nearing the end of the evening together, teachers proposed beginning their journey with some professional learning related to the significance of this place and the Ōtātara Pā adjacent to it. This request suggested participants were undergoing a process of re-considering their own identities and what in fact they really knew and understood. Discussion indicated participants were thinking through appropriate new ways needed to teach that knowledge.

Suggestions for involving teachers and whānau to build a sense of community included: local celebrations such as Matariki, holding meetings and social occasions, emphasising that connection with place and nature needs to ongoing visits and projects to the ŌOLC site and the Ōtātara Pā.

Challenges to making use of outdoor learning opportunities

Participants explained that while some engagement with place-based learning was happening for early childhood settings across Hawke’s Bay, there were also constraining factors. This echoed Terreni and Ryder’s (2019) discussion of challenges for teachers in Aotearoa New Zealand undertaking excursions to natural learning environments such as the ŌOLC. Participants identified a range of factors that would need to be addressed; some personal, some procedural and some institutional.

Personal considerations included debates pertaining to teacher attitudes to being in nature and their beliefs around the value of excursions. It was noted that some teachers believed that the ‘tangle of bureaucracy and regulations’ were too difficult to navigate. However, other participants countered this notion, stating that there is help to develop policies and procedures for excursions on the MoE (2008b) licencing criteria website, that enables teachers to create emergency responses, health and safety protocols and risk management plans. Interestingly, Torquati et al. (2013, p. 721) identified the need to consider beyond these external challenges to the internal challenge: noting that hesitancy and undervaluing the importance of children’s experiences in, and learning about, nature remains an ongoing challenge for “both professionals and students” to develop for the provision of appropriate outdoor learning pedagogies and opportunities in places such as the ŌOLC provides.

Procedural concerns included, the distance of some early childhood settings from the ŌOLC site, which would mean that cost of a bus or whānau support for transportation. While this was considered possible to arrange, worries were

voiced about cost for whānau. Alongside this was a discussion on access to the site, the steep driveway that may mean a difficult walk for children. One response to this notion offered the perspective that this was one purpose of the excursion, to have challenging physical experiences.

Finally, questions about institutional processes and requirements were recorded for the EIT teacher educators to find out about and distribute the information to the participants. These included information about: how to book to visit the site, availability on the weekends for whānau or teaching team visits, the risk management plan for the site, health and safety protocols.

From this hui we took participants' suggestions and concerns as valuable insights from potential users of the ŌOLC space. Participants' comments provided practical, administrative and pedagogical ideas to revisit and consider further to develop achievable strategies and solutions. Hayes' (2013) perspective of what it means in Aotearoa New Zealand to speak of "place" and "space" may help scaffold that process of reflection and potential change. It was positive to see the engagement of these local early childhood teachers in the ŌOLC space itself, imagining what could be done. Participants' broad concurrence with vital learning possibilities within nature and new cultural ways of incorporating Māori perspectives, could build on local place-based familiarity in re-connecting children with the environment.

Conclusion

Early childhood teacher educators invited local early childhood teachers to experience and respond to the availability of a new, local, spacious, outdoor learning centre. Participants experienced pleasure in an outdoor field visit, collegiality in an informal group discussion, and intensive exchanges discussing the new ŌOLC space. Environmental and cultural learning finds a strong interaction in this learning space. The research purpose was to learn about attitudes, views and concerns of early childhood teachers and the potential for applying what was learned for their use of the ŌOLC with children.

Many possibilities were presented about how the space could be used. Everyday educational practices were envisaged as benefitting from the large outdoor area, including: many forms of play and learning, developing outdoor skills, and expanding children's environmental consciousness. Participants and researchers reflecting on the project acknowledged the multi-faceted consequences of children growing up disconnected from nature.

Participants expressed the desire and potential for furthering their own learning about the outdoors and gaining familiarity with how this culturally imbued space could give them a closer feeling for nature. Finally, aspirations for reconnection to nature had to interface with practical constraints, such as distance, transport and safety, including how to resolve these to achieve the desired learning outcomes.

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