

Fostering Communities for Ecological Sustainability within Early Childhood Education

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Abstract: We are now at the half-way point of the UNESCO decade for education for sustainable development, promulgated in recognition of the seriousness of the global climate crisis, and positioning educators as potential leaders in generating the cultural changes needed to address this crisis (UNESCO, 2005). This article reports on one key focus of a recent study, 'Titiro Whakamuri, Hoki Whakamua. We are the future, the present and the past: caring for self, others and the environment in early years' teaching and learning', which had the aim of investigating how centres can work with their local communities in fostering ecologically sustainable practices. This project utilised a philosophical framework grounded in kaupapa Māori notions such as manaakitanga (caring) and kaitiakitanga (stewardship), along with an ethic of care (Noddings, 2005). The work of teachers from ten early childhood centres produced evidence of teachers proactively raising awareness amongst tamariki and whānau of strategies for caring for our environment, and ways in which this extended more broadly into their communities, some of which are described below.

Introduction

This paper outlines how some early childhood centres are working to raise awareness with tamariki and their communities of issues of pertaining to the care of our environment. There is widespread international concern about the impact of climate change. An international treaty that sets general goals and rules for confronting climate change, the United Nations Framework Convention on Climate Change (UNFCCC) has secured the involvement of 192 countries around the world. The UNFCCC "has the goal of preventing "dangerous" human interference with the climate system" (United Nations, 2010, p 1). It is therefore, extremely concerning that recent attempts to define specific targets for reducing emissions have failed to achieve a consensus.

As oil and other resources reach their foreseeable limits, we are now faced with the realisation that we need to enact widespread collective changes in our attitudes and ways of being in the world, towards much more ecologically sustainable ways of life. Education can be considered to be "the great hope for creating a more sustainable future" (UNESCO, 2005, p. 11). Early childhood centres can be viewed as being sites of possibility with regard to

transformative education. When educators in these services work closely with both tamariki and whānau, changes such as those required to move our collective societal consciousness towards ecological sustainability may be reinforced not only in the centre, but also in homes and further into the community.

Such an approach falls within our curriculum guidelines (Ministry of Education, 1996). The Te Whāriki principle of 'Family and Community – Whānau Tangata', positions the "wider world of family and community [as] an integral part of the early childhood curriculum" and recognises that the "well-being of children is interdependent with the well-being and culture of adults in the early childhood education setting; whānau/families; [and] local communities and neighbourhoods" (Ministry of Education, 1996, p. 42). Te Whāriki also stipulates that "The curriculum builds on what children bring to it and makes links with the everyday activities and special events of families, whānau, local communities, and cultures" (p. 42). Following from this principle, the curriculum strand of 'Belonging' reinforces this emphasis on connection with families and community, stating that "Children and their families experience an environment where: connecting links with the family and the wider world are affirmed and extended" (p. 54).

Early childhood educators have the potential to consciously focus on building a sense of community, in order to enhance this sense of belonging. Peter Block (2008) considers that wellbeing at a community level is dependent on the quality of relationships amongst members of that community. He advocates for a credit-based approach, whereby "community is built by focussing on people's gifts rather than their deficiencies" (p. 12), fostering an appreciation of each person's contribution.

Education for ecological sustainability also involves the conscious fostering of a sense of community, which is viewed as being central to building strong sustainability (Alvarez, 2007; Sustainable Aotearoa New Zealand Inc, 2009). In our recent project, the focus on fostering an ethic of care towards ourselves, others and the environment was viewed as having the potential to enhance both community wellbeing and that of our local and wider environments (Gruenewald, 2003). Families provided the link between the work of centres and that of local communities, around this focus of collective and environmental wellbeing. In alignment with Te Whāriki's framework, teachers in our study 'wove' their own ways to

integrate environmental understandings in meaningful ways, relevant to their own centre and community contexts (Basile & White, 2000).

The overall research questions for this study were as follows:

1. What philosophies and policies guide teachers/whānau in their efforts to integrate issues of ecological sustainability into their current practices?
2. How are Māori ecological principles informing and enhancing a kaupapa of ecological sustainability, as articulated by teachers, tamariki and whānau?
3. In what ways do teachers/whānau articulate and/or work with pedagogies that emphasize the interrelationships between an ethics of care for self, others and the environment in local contexts?
4. How do/can centres work with their local community in the process of producing ecologically sustainable practices?

This paper focuses on offering some examples from the data gathered from some of the participating early childhood centres in response to the fourth of these questions.

Theoretical framework

Nel Noddings (2005, 2007) has challenged educators to consider how we might promote an ethic of care as an integral philosophy within our educational settings. An ethic of care is “an ethic of relation”, with an emphasis “on living together, on creating, maintaining, and enhancing positive relations” (Noddings, 2005, p. 21). It implies a focus on motivating the “attitudes and skills required to sustain caring relations and the desire to do so” (Noddings, 2005, p. 21- 22). Noddings highlights also the reciprocal relationship of mutual responsibility between ‘carer’ and ‘cared-for’ (Noddings, 2007, p. 225).

Peter Martin (2007) draws upon Noddings’ work to further point out that in order to foster a genuine relational sense of caring for the natural world, educators can focus on encouraging children to care *for* aspects of the environment in an intimate relationship. Martin considers that, “For educators interested in encouraging an ethic of care the capacity to think with the heart as well as the head is vital” (Martin, 2007, p. 61). David Gruenewald asks us to consider, “Where in a community... might students and teachers witness and develop forms of empathetic connection with other human beings?” (2003, p. 8). As early childhood educators we can certainly respond emphatically that early childhood services are sites in which this empathic connection can be facilitated.

There were a number of Māori conceptualisations underpinning the enactment within this study, such as manaakitanga, aroha, whanaungatanga, wairuatanga and kaitiakitanga. Manaakitanga has been defined as “The process of showing and receiving care, respect, kindness, hospitality” and implies “that the giving and acceptance of kindness and hospitality bestows mana on both host and guest” (Benton, Frame, & Meredith, 2007, p. 186). Inherent within the notion of manaakitanga is the concept of mutual respect (Benton, et al., 2007). According to Hirini Moko Mead, “All tikanga are underpinned by the high value placed upon manaakitanga – nurturing relationships, looking after people, and being very careful about how others are treated” (Mead, 2003, p. 29).

Aroha is explained as conveying a sense of “overwhelming feeling, pity, affectionate passionate yearning, personal warmth towards another, compassion and empathy, originally especially in the context of strong bonds to people and places” (Benton, et al., 2007, p. 34). Further, “Aroha is an essential part of manaakitanga and is an expected dimension of whanaungatanga” (Mead, 2003, p. 29). Whanaungatanga is the sense of being connected, traditionally through kinship. Whakawhanaungatanga is the active process of generating this sense of being a collective. A Māori world view can be viewed as upholding this implicit sense of reciprocal obligation to care for others, both family and guests.

Wairuatanga refers to the spiritual dimension. A sense of spiritual interconnectedness is evident in the following statement from the Waitangi Tribunal: “Flowing from the oneness of the spiritual and physical worlds, and the indivisibility of the natural world (including people as part of that world, not masters of it), there is a mutuality in the relationship between people and land (Waitangi Tribunal, 2004, p. 8). Kaitiakitanga is a Māori construct meaning stewardship, guardianship, or protection. According to the Waitangi Tribunal, kaitiakitanga includes the obligation to proactively care for the environment rather than merely taking a more passive caretaking role. “Kaitiakitanga best explains the mutual nurturing and protection of people and their natural world” (Waitangi Tribunal, 2004, p. 8). Teachers, in this view, can be considered to be kaitiaki of the mauri (life forces) within their early childhood centre. All these constructs were actively applied within their teaching by teachers in this study, as will be illustrated later in this article.

Methodology

Teachers from ten early childhood centres agreed to participate in this study, supported by four co-directors and a research facilitator. We were privileged to have had the guidance of a kuia, Raheera Barrett-Douglas, and kaumātua Huata Holmes. Using a methodology informed by kaupapa Māori and narrative approaches (Clandinin, 2007; Smith, 1999), data were gathered primarily by the teachers, through documentation, interviews, audio and videotaping, and through collective co-theorising discussions which also facilitated our analysis of the data. Data included narratives, photographs, children's art and stories, field-notes, video-taped activities, transcriptions of interviews with children, parents, and transcriptions of discussions between teacher co-researchers and research co-directors.

Building communities of ecological awareness – some examples

In this section, selected data from transcriptions of conversations with teachers, and from reflections they wrote serve to illustrate some ways in which manaakitanga, aroha, kaitiakitanga, whanaungatanga, and wairuatanga were fostered during the period of the study' leading to enhanced involvement of the centres' communities in the kaupapa of caring for ourselves, others and the environment.

One of the ways that educators fostered manaakitanga was through the provision of kai to tamariki and whānau, including fruit and vegetables grown at the centre. Belmont Kindergarten Te Kupenga in Hamilton, operates under Te Korowai o Whanaungatanga – the cloak of whanaungatanga (which they translate as 'including families'). This embraces their three philosophical principles of: Whakapiripiri mai – 'coming together'; Manaakitanga – caring and sharing, making people feel at ease; and Rangimarie – 'peace'. Pat Leyland, head teacher at Belmont Kindergarten Te Kupenga, explains her kindergarten's practices around kai, which involve caring and a sense of collective responsibility:

Kai is really important in this kindergarten and feeding people, and making it simple for people. So our kai philosophy here is, they don't bring lunchboxes, they don't bring juice bottles, they bring kai to share. So we have shared fruit. People donate bread and spreads, so those people who can afford to do it, do so, and those people who can't - no one's counting, no one's looking. The food just comes in and the children get fed. Simple healthy food, water in the tap. And people pick up on that and it's so much simpler than everyone bringing in their own individual lunchboxes and ... we grow food in our gardens...And so we're renewing our gardens all the time and we've got fruit trees out there that are starting to all get fruit. A mum gave us a

black raspberry plant so we've got raspberries and the children can go and pick them and we must encourage them to pick them because they've got raspberries on there now. Our feijoa tree - last year was our first fruit. This year we're going to have heaps of fruit and they go out and pick the food off the ground and bring them in so we can share them. [Pat, Belmont Kindergarten]

Belmont Kindergarten Te Kupenga, along with several others in the study, has a “community basket”, in which excess produce is made available to anyone who can use it.

Families proved to be incredibly responsive to initiatives by the teachers to involve them in the ecological sustainability focus. The following excerpt from a discussion with Hinemania, a teacher at Raglan Childcare and Education Centre is another example of centre practices generating manaakitanga, reciprocity and an ethic of a caring, sharing community:

Hinemania: So we've had all the tomato plants self-seed and they've gone home. The strawberries have gone home. Even the sunflowers went home and the lettuces have gone home.

Jenny: And parents keep sending things in like more seeds?

Hinemania: Yeah, so we've just received this week corn, tomatoes, beans and I think someone bought in a swan plant as well.

Jenny: Wow! All in one week?

Hinemania: Yeah!

A reciprocal cycle was occurring over time, whereby seedlings generated in the centre were taken home by children to their home gardens, with some of the eventual harvest then being returned back, along with other excess produce, to the centre's 000BY ('out of our back yards') bowl. This bounty included lettuces which were used in shared sandwich-making, fruit which the children juiced, and vegetables which children cooked into soups.

A parent, 'Kate', whose daughters attended Maungatapu Kindergarten, identified the key role of the teachers in generating a sense of caring community within that centre, through their caring relationships and philosophy, in the following excerpt from a taped conversation:

Jenny: So you could sort of sense that the things that were being offered here, they resonated with your key core values about how you wanted to care for your children and how you wanted your children to be surrounded, the kind of environment?

Kate: The big thing, was how those three [teachers], how they worked together as a team too, and the whole atmosphere that they create between themselves.

Jenny: So you sense the teachers have a common empathy of how they work together? A common philosophy or something?

Kate: It's a common comment between parents, "Aren't we lucky?!" You know, it's not uncommon to hear people - everyone speaks really highly of everybody here.

Jenny: So the community of parents really appreciate what the children are receiving here?

Kate: Yeah. Absolutely.

Jenny: Can you give me an example of how you see that common philosophy coming out for you?

K: I suppose through the teachers, the relationship with the teachers. And you watch them with the kids and they make you feel that you're part of this community and they acknowledge you. They're busy and yet they will take that moment just to connect with you and make you feel like what you've got to ask them is valid. Yeah, everybody feels like that I think.

This warmth of relationship is consistent with the notions of aroha and whanaungatanga, as well as an ethic of care.

Papamoa Kindergarten is part of the Enviroschools movement (Enviroschools/Kura Taiao, 2009). Carolyn O'Connor, a teacher at Papamoa Kindergarten, outlined how kaitiakitanga is applied within their programme:

Kaitiakitanga is looking after places, things and people. We have observed our children gain a sense of pride and respect for our kindergarten environment. We believe that when children have the opportunity to engage and care for the natural environment they will gain the skills, knowledge and desire to care for it in the future. The environment is the third teacher. There is a learning opportunity in every space. We have gardens that are sensory, edible, native and flowering. We have composting and recycling systems, including water conservation and eco-systems. Children are having a shared responsibility to look after our place and this is valued as real work, so everything we do in the kindergarten here is included with the children. [Carolyn, Papamoa Kindergarten]

In keeping with the Enviroschools' philosophy, the Papamoa Kindergarten teachers established a parent support group focussed on kaitiakitanga, caring for the environment. Julie Sullivan, head teacher at Papamoa, locates this process within the Māori construct of Ako:

Ako is the concept of co-constructing; teachers as learners and learners as teachers. We continue to explore and gain knowledge to implement new ways to reduce waste, conserve water and involve family and community at different levels. We

value the opportunities to network with colleagues and the wider community. We've also developed an enviro-group in our kindergarten which is part of a group that we ask families if they're interested in coming along to meetings that give them information about things that we're doing in the kindergarten and also we work on projects and we also give them information on things maybe that they could be doing at home or things that we need at the kindergarten. We've found it a wonderful group because people have become inspired to help us. They've also become really resourceful because say we need maybe to make a water system in the sandpit and so we've got fathers coming along, putting their barrels in and connecting things [to create] this water system. [Julie, Papamoa Kindergarten].

In addition to the tree-planting undertaken by the Papamoa Kindergarten community, there were many other examples of the enactment of kaitiakitanga, whereby teachers, families and children actively and intimately cared for local environments (Martin, 2007), such as the beach clean-ups undertaken by Meadowbank Kindergarten, Auckland, and Richard Hudson Kindergarten in Dunedin.

Towards the end of the project, the teaching team at Papamoa Kindergarten reflected on how they felt their approach had fostered a sense of both whanaungatanga or community, and wairuatanga, spiritual interconnectedness:

A sense of community 'whakawhanaungatanga' with our families learning alongside their children has been achieved. As teachers we have continued to learn and improve our practice. We have broadened our outlook. We have a great relationship with our neighbouring school. We access our community more, we link with children's homes and this has deepened our relationships. We were very pleased with our ERO [Education Review Office] review last year that reflected how important relationships with our children and whānau are, and that this was evident in the kindergarten 'vibe', the wairua of our place. We also realise that things take time we continue to review discuss and implement new plans with both a bicultural and environmental influence. It is about taking small steps learning with children and families. Empowering people with many different skills and ideas to come on the journey with us. [Team, Papamoa Kindergarten]

Teachers came together for a final co-theorising hui, sharing their many experiences, and expressing a collective sense of the value of their work. Although some of the teachers voiced their ongoing apprehension in regard to the seriousness of the climate crisis, and in particular its inequitable impact on the lives of children and families in less 'developed' countries, they also considered that being involved in such work offered them a sense of making some contribution towards change. As Marina Bachmann from Collectively Kids Childcare and Education Centre in Auckland stated at the hui, "Unfortunately there isn't an

easy solution and I'm under no illusion that our actions have much impact on the grand scale, but it is important to do *something*, and the small meaningful actions make ripples".

Conclusion

Space constraints have allowed presentation here of only a small number of examples from the much wider pool of data gathered during this study. It is hoped however, that these serve to illustrate some of the many ways teachers used the research kaupapa of caring for ourselves, others and the environment, underpinned by key constructs from Te Ao Māori (the Māori world) such as whanaungatanga, manaakitanga, and kaitiakitanga, to engage children and their families in their particular local contexts, thus contributing to the much wider, global project of generating communities which are caring for both people and the planet. The data has shown that both children and parents were responsive to the practices initiated by the teachers, and that these endeavours reached out into the wider community through such kaitiakitanga projects as beach-care and tree-planting. The reciprocity implied in the constructs of manaakitanga and an ethic of care evident in these centres' practices holds promise for the wider cultural changes required towards an ethos of better caring for ourselves, others and our environment.

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Glossary

Ako – learning and teaching as a mutual process
Aroha – affectionate emotion, compassion, empathy
Hui – gathering, meeting
Manaakitanga – demonstrating caring, respect, kindness, hisopitality
Kai - food
Kaitiakitanga – stewardship, protection
Kuia – female Māori elder(s)
Kaumātua – Māori elder(s)

Kaupapa – philosophy or framework
Mauri – life force(s)
Tamariki – children
Te Ao Māori – the Māori world
Wairuatanga – spiritual interconnectedness
Whānau – families, extended families
Whakawhanaungatanga – process of generating a sense of relatedness and connectedness,
Whanaungatanga – sense of being a family, connectedness

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