



TEACHING & LEARNING
RESEARCH INITIATIVE

NĀU I WHATU TE KĀKAHU, HE TĀNIKO TAKU

CASE STUDY

The contribution of embodied ways of knowing in reconceptualising dance in the New Zealand Curriculum: A grounded pathway for the twenty-first century.

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Abstract

This case study explores the ways in which dance, as an embodied way of knowing and being, might provide a venue for exploring the potential of the *New Zealand Curriculum*. Despite the Cartesian notions that have traditionally privileged intellectual knowledge over embodied and emotional ways of knowing, the research project shows how knowledge and learning can be re-conceptualised in an era of globalisation characterised by increasing cultural and ethnic diversity, complexity and uncertainty. In partnership with two primary school teachers and their classes over a period of 20 weeks, the case study explores approaches to teaching and learning dance in education which enable the development of personal expression, group and individual creativity and create pathways towards different, integrated ways of being and knowing.

The findings of the project suggest that if teachers have a strong, lived experience of DiNE, they are more likely to shift their ideas about what dance actually **is**; as teachers implement the process with their students and observe their students' responses, they are more likely to alter how they teach and to question the traditional role of the teacher; when teachers see the creative flow and the positive effects of embodied learning and teaching on their students, they are more likely to expand their ideas about knowledge and learning. The case study suggests that dance in education can lead to teachers' reconceptualisation of their understanding of the 'front end' of the NZC, and an expanded consciousness about the bigger purposes of education.

Introduction

On a hot day in April 2006, in a village on Tanna (one of the islands of Vanuatu), I joined in a dance, with a large group of children, that involved jumping in bare feet and chanting in a simple, repetitive way. As the clouds of dust rose around this tight, sweaty, and increasingly dusty, jumping crowd, I felt a sense of joy and community that I have only experienced at rock festivals like 'Nambassa' in the 1980s. The dance evoked feelings of oneness and connection not only to each other, but also, through our bare feet, to the very land itself.

Later, as I reflected on this dance, the thought struck me that in New Zealand, as adults, our feet do not often physically touch the ground. We are all bound to the earth, tied into its rhythms and patterns, and most ancient cultures have music and dance that arise from these stimuli. The state of being and knowing that can arise out of such experiences in dance interests me as an educator as I re-examine the boundaries of 'knowledge' through participating in a Teaching and Learning Research Initiative (TLRI) project on teacher education in the twenty-first century, which focuses on reconceptualising knowledge and learning in the *New Zealand Curriculum* (NZC).

In 2008, I became a student of the Orff-Schulwerk approach (OSA), a child-centred method of teaching music and dance that foregrounds pedagogies of play and improvisation. The founder, Carl Orff, spoke about the need to return to nature through the arts and he encouraged a synthesis of elementary music, word, movement and play. His approach was holistic, based on discovery and integrated the disciplines of music, dance and drama. This approach has spread globally over the past 80 years with the Orff New Zealand Association (ONZA) recently established.

My experience in Tanna and of the Orff-Schulwerk approach fueled my interest in embodied learning; learning in and through the body especially in dance, drama and with music. The launch of the NZC (2007) has provided an opportunity to advocate for the arts and to work towards expanding the consciousness of teachers about the notion of embodied learning. The 'front end' of the NZC embraces diversity and offers the chance to value and explore other ways of knowing and being.

Dance was mandated as part of the arts curriculum in 2000 and in its intended form (McGee, 2007) is a legitimated way of knowing and being. However, most teachers lack 'knowledge' of dance, having had little experience themselves and little pre-service training. Moreover dance is easily marginalised because of its low

status as a knowledge domain. It is often confined to learning folk dances or, increasingly, students teaching each other a series of hip hop 'steps' copied off music videos and other digital resources. Although such dance experiences have a place, the concept of dance in education that I have been developing encompasses a wider range of learning that can enable the development of personal expression, group and individual creativity and develop pathways towards different, integrated ways of being and knowing.

In the project case study I wanted to undertake in-service professional development with two teachers that would explore shifts in understandings about dance, engage with different ways of knowing and explore the potential of the NZC in practice. The second layer of this project allowed me to explore my own shifting understandings of knowledge and learning as I become more interested in a kind of education that offers different, integrated ways of knowing and being.

In this article I begin by exploring arguments for reconceptualising the curriculum for the twenty-first century within the arts arena. I background the contribution of the arts as an embodied way of knowing. Next I provide an overview of the methodology of the case study. I then present the research findings and conclude by discussing the implications of the findings in terms of the potential for dance to shift conceptualisations of knowledge and learning for teachers and students alike. I suggest that dance, as an embodied way of knowing, can provide a venue for exploring the potential of the NZC and can empower our young people to engage with the complex realities of living, learning and 'being' in the 21st century.

Literature review

I begin by examining literature that provides a rationale for reconceptualising the curriculum at this particular social and historical time. Next, I explore the concept of embodied knowledge and the contribution that the arts (especially dance) can play. I provide an overview of the Orff Schulwerk philosophy and pedagogy and explain what it has to offer in terms of my development of dance in education as a way of knowing, teaching and learning.

Factors that are prompting widespread, global, educational change in the twenty-first century include increasing complexity, uncertainty, social disconnection and increasing cultural diversity. The notion of a 'knowledge society' has prompted a shift in the whole meaning of knowledge towards something that is fluid and changing, constructed with others. At the level of the intended curriculum (McGee, 1997), the NZC offers the potential for a new educational paradigm for learners in the twenty-first century; learners who need to be equipped to engage with a range of ideas, beliefs, practices and perceptions, and who are able to reconstruct knowledge.

The NZC provides a strategic opportunity to reconceptualise knowledge and learning in the current global and national contexts and to explore alternative ways of knowing that can work towards making learning more meaningful and student-centred. The potential for pedagogies such as those used in dance and drama education, (and the arts in general), is increased when NZC principles such as diversity and inclusion are placed at the heart of the curriculum. Such pedagogies invite students to play a major part in discovering and contributing creative ideas. Being in such a creative space can evoke a different consciousness. Thus curriculum reform opens an opportunity for reconceptualising knowledge and exploring the notion of 'embodied learning'.

The arts are where creativity, imagination, spirituality and emotional intelligence can have a strong role in enacting the aims of the NZC. How principles such as 'inclusiveness', 'connectedness', the value of 'diversity', and the need for 'coherence' can be lived and realised through the delivery of the arts curriculum in practice merits a thorough investigation (McGee, 1997). Interestingly, the first point in the NZC's vision statement is that of developing young people who are 'creative, energetic and enterprising' (NZC, 2007, p. 8).

There is a strong case for arguing that students benefit from a rich arts education to help make them creative beings better able to adapt to, and survive in, a changing world (Pinar, Reynold, Slattery, & Taubman, 1996). Robinson (2006) believes that creativity should be afforded the same status as literacy. However the hierarchy

of subjects in the Western world still sees the arts at the bottom and dance as one of the subjects most easily marginalised. Current arts pedagogy might not be the best way to develop student creativity, especially if dance and music are taught with an emphasis on theory, technique and the transmission of known repertoires. Integrated and holistic pedagogies, such as those used in the Orff-Schulwerk approach, might work better to cultivate creativity and energy.

The second part of the NZC vision uses the word 'energetic' which suggests not only the body but also the mind and 'energies' (or spirit) all enabled and 'in motion'. The construction of knowledge in an artistic arena has the potential to offer great motivation, focus and engagement for a diverse range of students, because the different processes and thinking yield a different sort of energy. Various writers have suggested that the thinking processes in the arts are unique (Eisner, 1994; Gardner 1993). Together music and dance fully integrate the cognitive, motor and affective domains; students move, think and feel simultaneously. They learn about themselves and how they relate to others and the world as moving, thinking, feeling human beings. Bresler (2004) uses the term 'embodiment' to describe this synergy. This form of knowledge is available to everyone, the whole 'village' participates, and children do it innately. 'Knowing' emerges from, and is grounded in, bodily experiences and it crosses cultures.

The NZC vision proposes developing people who are 'enterprising'. This gives more weight to teaching and learning in the Arts arts because problem solving, coping with uncertainty and being resourceful are central to the creative process and such an approach requires the learner to become enterprising and resilient. We need to take a definition of 'enterprising' which moves beyond neoliberal economic understandings of entrepreneurship and incorporates the ability to tackle uncertainty with fortitude.

Indigenous knowledges emphasise the importance of attending to spiritual development in developing a sense of well-being, or, in Māori cultural terms, hauora (Penetito, 2009). The body has played an important role in many ancient cultures and philosophies with practices focusing on empowering body/mind and spirit through the combined focus on breathing, proper alignment and the use of energy. Such practices have similar important features (including being 'present' and the need for slowness) and all are oriented towards process.

How the dance curriculum is actually implemented in everyday classrooms (if at all) depends on individual teachers and their concept of 'dance', their passion and their known and felt experiences of dance. If knowledge is viewed as something constant which is held by a few and then transferred to others, then music and dance teachers will continue to teach a series of notes, chord progressions, steps and sequences, working constantly to improve technique. If knowledge is viewed as something dynamic and uncertain which is constructed with others, then constructing knowledge about the self and the process of discovery and self realisation/actualisation becomes more important. It is not in isolation but in relating to others that we experience life.

Dance and music constitute a form of embodied knowledge which reaches deep into the expressive being and for many, enables a sense of connection with a divine source or universal 'oneness'. To move into this state requires a sense of surrender to the moment which can be engendered by favouring the 'elemental' (Orff, 1963). Such experiences involve moving and dancing either freestyle or during semi-structured improvisations often to engaging, driving rhythms sometimes using repetitive movements and working as part of a group.

When an emphasis is placed on the 'elemental', and dance/arts-making experiences which facilitate improvisation are favoured, students are required to engage with uncertainty and are called upon to surrender to the moment (Blom & Chaplin, 1989). Dance improvisations allow for intuition to come into play. This expressive, organic and creative aspect of dance contrasts with the valuing of the performance or product. My developing concept of dance in education places creativity in the centre, places the body at the root of the process. The web of being, doing, feeling and thinking can then provide a springboard from which to explore large social issues, questions and dilemmas such as exclusion, sustainability, difference and ethics. Such big ideas can be explored in all the arts disciplines and then across other curriculum areas.

In Te Ao Māori, the Māori world view, there is a sense of spiritual connection to all things animate and inanimate. Inquiry into what 'knowledge' and 'education' might mean for Māori has been prompted in an

effort to determine why educational success (measured in the current educational paradigm) has been elusive for many Māori. The 'tail end of achievement' has a disproportionate percentage of Māori and Pasifika students leaving school early with fewer qualifications than their Pakeha counterparts (Bishop & Glynn, 1999). Music and dance play a vital role in Māori culture with chants and songs/waiata used to mark most occasions. The Orff-Schulwerk approach encourages the use of traditional stories, chants and rhymes as stimuli for further exploration and for the making of new material.

Aspects of the Orff-Schulwerk approach philosophy and pedagogy are woven through much of the front end of the NZC. For example, the word 'connected' appears in the vision of the NZC. Teachers today, when encountering ethnically and economically diverse populations, are required to make changes in order to 'connect' with students, to embrace diversity and to facilitate connections for students. The Orff-Schulwerk approach, with its emphasis on music, dance and language, works well to explore, discover and connect with diverse cultures.

Research methodologies

In this section, I outline the methodologies underpinning a case study which I undertook with two young teachers who participated in a professional development process as part of the TLRI research project. I outline and evaluate the research design, describe the setting and the participants, describe my positioning as a researcher, outline the methods of data collection and ethical concerns and describe my data analysis.

Rationale and research design

The demands of a global world provide an opportunity to explore the contribution that embodied ways of knowing may offer in terms in engaging with cultural and ethnic difference, complexity and uncertainty. This case study explores how dance can draw on expressions of physical creativity that value a wide range of cultural knowledges and develop a sense of total well-being (hauora) and community connection to the earth.

The case study sits within the wider TLRI project that aims to explore emerging issues in curriculum and teaching practice during initial and continuing teacher education. The first tier of my case study examines the shifting conceptualisations of knowledge and learning of two classroom teachers. The second tier explores my shifting conceptualisations of knowledge and learning, as a practitioner researcher, over the course of the project.

Three research questions guided the wider TLRI project:

- How are the shifts in conceptualisation of knowledge and learning interpreted within the different knowledge domains of the practitioners in this research? How do these shifts affect the way the NZC is interpreted and implemented?
- What are the characteristics of effective initiatives for shifting student teachers' and teachers' conceptualisations of knowledge and learning?
- How do shifts in the conceptualisation of knowledge and learning affect student teachers' and teachers' interpretations of the NZC?

My case study research question was:

- What can dance as an embodied way of knowing contribute to twenty-first century conceptualisations of learning and teaching?

The research design drew on case study (Stake, 2003) and participatory action research models (Kemmis & Wilkinson, 1998). Participatory action research is a form of action research that creates a collaborative context within which the participants can explore what it might mean to shift some of the epistemological and

ontological practices that constitute their social and educational realities. The participatory action research model uses an iterative action research model which involves identifying an issue; collecting initial interviews; analysing the data to determine a course of action; planning and trialling strategies to address the issues; evaluating and reflecting on the effects of trialling the strategies; and revising the plan in the light of the evaluation and reflections.

Working in collaboration with teachers, the research design was constructed to make connections between research and practice and to be respectful of teachers. To facilitate communication in the dissemination process, a case study approach was chosen because the design recognises the role that the setting and participants play in shaping what can be possible within a particular context.

Setting and participants

I worked in collaboration with two beginning primary school teachers across two different school sites. The teachers had minimal pre-service training in the field of dance education but came to the study with an interest in embodied learning. Both teachers were female, in their twenties, had backgrounds in dance training and identified as New Zealanders of European descent. The first teacher, Marcy, was in her second year of teaching in a decile two school with an ethnically diverse and emotionally demanding Year 2 class. Marcy was keen to develop more knowledge of teaching and planning programmes in the arts to lead other teachers, as she had been given the role of arts co-ordinator in the school.

The second teacher, Lulu, was classified as first-year teacher, but had taught English abroad for three years. She held Shinto beliefs and had a strong interest in environmental education. Lulu undertook professional development in education for sustainability (EFS)¹ and, as a dancer herself, was particularly interested in learning how to teach dance and drama. She wanted to 'integrate the key competences, the arts and EFS to deepen understandings' with her Year 0/1 class in a decile seven school, and she wanted to learn about pedagogies to 'support creative confidence' (Lulu, survey).

Given my role in shaping and working with the teachers, I see myself as the third participant. I am an active, senior dancer and drama educator. I have worked as an arts adviser and as a primary and secondary teacher for more than 25 years. During the first year of the research project, I worked as an adviser, designing, implementing and facilitating teacher in-service professional learning with both primary and secondary teachers. I focused on dance and drama, education for sustainability, and the broad area of valuing student diversity (especially Māori and Pasifika peoples). During the second year of the project, I taught four days a week in a primary school as a performing arts specialist, with time also allocated to develop literacy and languages. This new context meant I was challenged to re-examine my understandings as I applied this way of learning and knowing through the body within the practical context of a traditional school.

Researcher positionality

My life experiences, values, beliefs and attitudes have strongly influenced the direction of the case study (Bogdan & Biklen, 2002). My own shifting understandings of knowledge and learning are examined as part of the case study research process because they profoundly influence how I operate as a curriculum decision maker (McGee, 1997) as I work with teachers.

For me, the broad purpose of education is enabling young people to grow holistically to their full potential and to experience a rich and meaningful life. As a teacher specialising in the performing arts, I therefore aim to educate holistically, to unleash creativity through play, and to facilitate improvisation. Being in such a creative space evokes a different way of thinking and knowing—a different consciousness. To facilitate this broadening of consciousness, I work through the arts to provide an immersion experience whereby individuals access their own artistry, their own creativity, and enter into a state of 'flow' (Csikszentmihalyi, 1990). By developing this artistic awareness in a group situation, participants may experience the inter-connectedness that we crave and

¹ Education for sustainability is defined as being about "learning to think and act in ways that will safeguard the future wellbeing of people and our planet." <http://efs.tki.org.nz/EFS-in-the-curriculum>

feel the pleasure of belonging. An important part of this process is to draw out the playfulness that lies within each of us and which enables us to be deeply creative again. As a provocateur, I draw on the bonding and the energy that emerges in the room to elicit creative ideas in order to shape an aesthetic experience.

My intention as a teacher educator is to highlight the way of knowing that such creative experiences provide and to immerse teachers in the experience to such an extent that they will then want to experiment and explore how to facilitate it with their own students.

Ethics

This project had the ethical approval of the University of Canterbury Human Ethics Committee. Informed consent (Bogdan & Biklen, 2002) was gained from the teachers and student participants. One of the schools that provided photographic evidence gained the permission of parents to use the prints as part of the case study (see Appendix 1). Pseudonyms were used to protect the confidentiality of the teachers and schools. Teachers had the right to withdraw themselves or their data from the project at any time. None chose to do so. Participants had the opportunity to provide feedback on the analysed data and will be consulted about the dissemination of the research findings. As much as is possible, approval is sought from the participants before the data is used in a public sphere.

Data collection

Initial data were collected via through a survey, and, during the research period, two semi-structured, interviews were conducted with the participants. The first interview was audio-recorded and the second interview (which used the same headings as the initial survey) was written up. The survey was used to gain a picture of how the teachers currently understood knowledge and its implications for learning. The interviews explored the ways in which the teachers understood themselves as teachers of dance. They were asked about how they understood dance as a knowledge domain, and the implications that dance as a way of knowing might have for learning. The teachers' understandings of the philosophical underpinnings of knowledge in the NZC was sought and the implications of the NZC for their own teaching and learning within the subject domain of dance was also explored. Impressions of the ways in which the teachers put their developing philosophies into practice were also gained through participant observations (Bogdan & Biklen, 2002).

In the second stage of data collection, I worked with the teachers over two terms (20 weeks) to develop and trial experiential approaches to explore the potential of dance as an embodied form of knowledge. Follow-up data collection consisted of two face-to-face, semi-structured interviews with the teachers.

The teachers participated in experiential workshops with other teachers and then entered into a negotiated programme of at least 10 in-school support visits. The professional development approach incorporated elements of professional goal setting, planning the learning, in-class co-teaching and guided reflection during and after the learning sessions. The 'Teaching as Inquiry Cycle' (Ministry of Education, 2007, p. 35) was used to support the teachers in identifying their responses to emergent student needs and to explore successful pedagogies that allowed dance to be centred as an embodied form of knowing. Through asking questions such as 'What did you see?' 'What was the energy and atmosphere in the room?' 'What sort of creativity did you observe?' 'Where were there moments of beauty?' and 'Where were the times of flow?' the teachers were encouraged to recognise that dance is a visual, physical, embodied and feeling art. Throughout the process, teachers were encouraged to reflect on their own learning in a research journal. Researcher field notes (Bogdan & Biklen, 2002) documented issues as they occurred and accounted for my positionality as both a dance adviser and as a research participant in the process.

Data were also collected over the course of the case study in order to document my shifting conceptualisations of knowledge and learning. I wrote two analytic memos (Bogdan & Biklen, 2002) in the early stages of the project. The first of these described my positionality as a researcher and the second memo described the ways in which my life experiences, values and beliefs influenced my conceptions of knowledge and learning.

Over the course of the project I kept a research journal charting my shifts in thinking about dance education and ideas about how knowledge is constructed. My project lead-researcher observed work that I was engaged in with the teachers in the classroom. Follow-up data took the form of a diagram that charted the congruence between events in my life and my shifting understandings of knowledge and learning. I also participated in a face-to-face, audio-taped interview with the researchers to gain a more nuanced picture of the ways in which conceptualisations of knowing and learning continued to shift for me.

Data analysis

Working within an interpretivist framework the qualitative data was coded and analysed thematically using standard qualitative research methodologies (Bogdan & Biklen, 2002). The analysis has been drawn on in the writing of this case study.

Findings

In the first part of this section, I briefly describe the professional development process that I developed and implemented with Marcy and Lulu and their classes. I look at each teacher's process separately because each came to the project from different backgrounds and experiences in relation to dance education. Also, the school contexts in which they were working were very different in terms of socio-demographic factors and cultures. One teacher also received additional professional development from the visual arts adviser and participated in in-depth training in education for sustainability. This training was informed by an arts-based, integrated approach which emphasised creativity and imagination.

In part two, I explore my own shifting conceptualisations of knowledge and learning. As my circumstances changed, my concepts shifted in response to the different contexts in which I was immersed. My understandings of knowledge and learning have since been challenged upon returning to teach within a formal schooling context.

Part one: The teachers

A summary of the professional development process is outlined below followed by significant features of this particular dance in education model.

1. Teacher immersion in the creative process through a series of active workshops including physical action in the moment with other adults and a cycle of action and reflection.
2. Co-teaching in class—taking physical action with the children in the moment while reflecting in and on the process.
3. Reflection time (one-on-one) following the session in class to reconnect with each other, deconstruct the experience, discuss the students' responses and learning and plan possible next steps.

Both Lulu and Marcy were immersed in at least three whole-day workshops in dance. They were practically involved in the creative art-making processes—it was a 'lived experience'. Engaging with this way of knowing involves teachers taking risks as they push their own known boundaries and engage with the playful and creative side of their natures while relating in their bodies with other adults (Bresler, 2004; Eisner, 1994).

In my role as an adviser, I regularly visited the two teachers' classes, modelling and leading some sessions and co-teaching in class with reflective discussion happening during and after. Lulu commented that she thought that the adviser 'would sit and take notes and then tell me later what I should have done' (Lulu, interview 2). My dance in education model works in more collaborative, playful ways. As an adviser and practitioner researcher I worked side-by-side with the teachers creating a flow of energy, shaping the children's responses and working as artists together willing to take risks and just 'be' in the moment. Student creativity and

playfulness was emphasised. The teachers and I were constantly active while we simultaneously reflected on the degree of absorption, engagement and flow evident in the room. Building a working rapport with the teachers and trusting the process and each other was critical.

The dance work was based predominantly on key children's literature, exploring rich central themes such as sibling rivalry, bullying, exploitation and sustainability. Cross-curriculum integration was enacted across the arts, science, language and social studies domains using the values, principles and key competencies from the NZC (Ministry of Education, 2007) as a thematic link. This concept of arts-based integrated projects has been developed and implemented over a number of school contexts (Fitzgerald & Moore, 2007).

Being part of an energetic, moving group of children can be noisy, messy and seemingly chaotic at times. However, the pleasure that the process generates has its own ways of managing the energy. As part of the process, the teacher becomes more ready to 'read' the room, to co-construct the process and to develop the students' ideas, recognising and supporting their immersion in the artistic experience. The teacher shifts in and out of being the facilitator, the provocateur and a kind of 'conductor'. The teacher is an artist, shaping experiences to develop a different way of knowing and being which enables an integration of body/mind/spirit.

Over the period of the case studies, both teachers' understandings of knowledge and learning shifted in several key areas which I have identified as features of this dance in education model. Key areas for the teachers' expansion of ideas included their:

1. definition of what dance in education might involve
2. ideas about the role of the teacher
3. ideas about knowledge and the importance of the body and embodied learning
4. ideas about knowledge and the movement towards twenty-first century ways of knowing expressed in the NZC
5. ideas about the big purposes of education.

Marcy's shifting understandings of knowledge and learning

Marcy was a second-year teacher of a Year 2 class in a decile two school in an urban suburb of a South Island city. She had some dance and music training and had been placed in charge of this learning area at her school.

1. *Shifts in definition of DiNE.* Marcy's concept of dance in education shifted rapidly. Marcy noted in interview 1 that, before the professional learning and development process began, her teaching of dance had been quite prescriptive. 'When I thought of teaching dance, I'm really thinking ... ok step to the side, do this, put your hand there'. By the end-point interview, her definition included an understanding about the creative emphasis of dance education as she explained how her class was 'exploring through dance and discovering it together'.

Her reflections on her students included the term being 'in the moment'. Her students reached this state of being in one class early in the professional development process for an extended period of time. When she described the session she said: '... they were just moving to the beat, and moving ... and enjoying it, and I think they were in the moment then'. In another session she described how they 'worked together ... there wasn't a lot of talking ... oh very focused, they were using their bodies as a tool ... and it was creative too, I mean they all had different ways of showing' (Marcy, interview 1).

2. *Shifts in ideas about the role of the teacher.* By the mid-point in the process, Marcy's ideas about the teacher's role reflected her changing emphases and her value of exploratory play. The teacher's role in scaffolding the process was identified. 'They're learning as they're doing, so not being fed information, they're actually playing and the teacher's obviously scaffolding ...'. She commented on her enjoyment of teaching dance creatively: 'I could just enjoy it so much more' (Marcy, interview 1).

Different ways of working can precipitate a crisis for teachers and students; the learners because they are unused to being free in their bodies and the teacher who has to work spontaneously and trust the artistic, creative process and who is also learning how to manage the students' behaviour differently. It challenges

their role as a 'controller' and as an expert 'knower'. A crisis occurred when Marcy felt confident enough to take the class on her own and requested that I 'do an observation'. Although the class started well, she became uncertain where to take it and the students began to lose focus. I hesitated but then asked if I could 'have a turn?' (a kind of agreed code for handing over when either of us had a good lead on where to go next with the students' ideas) and she handed over with some relief. In her reflection on the class, she was critical of herself and expressed a crisis of confidence. She identified how I could judge students' engagement and focus and could 'jump in incorporating student ideas so easily'. When engaging with uncertainty it is inevitable that crisis will be part of the process (Elsworth, 2005). As an adviser, I increasingly see my role as a 'co-driver' and when the teacher is in charge, I can still take over control of 'the vehicle' if we are going 'off the road' and require some useful 'steerage'! Part of the freedom to play and go 'with the flow' came from this security and established trust with the teacher. Students also gleaned a sense of the teachers being creative and in the moment and this released them further into a state of play, creativity and risk-taking.

3. *Shifts in ideas about knowledge – the importance of the body and embodied learning.* Marcy spoke with enthusiasm of the obvious pleasure and enjoyment her students were feeling in dance lessons. "They loved working together, being with their partners ... they enjoyed showing each other and they wanted to share their learning." She noted their responsiveness and engagement and how they were "working as a team, being creative using their bodies as a tool". This led her to a key statement in interview 1: 'Our bodies are who we are'. Even though she was out of her comfort zone, she could see from the responses of her students that we were tapping into something meaningful (Aluli-Meyer, 2008). Later, Marcy articulated new understandings about dance as a way of knowing in and through the body. She also understood that working in this way means that knowledge is constructed together (Gilbert, 2005) and builds on students' and teachers' experiences: 'Through dance we're exploring, but we sort of discover it together'. Marcy explicitly affirmed in the final interview: 'You build it, you build on experience'.

4. *Shifts in ideas about knowledge and the intention of the NZC.* Initially, when asked what she understood knowledge to be, Marcy emphasised a skills-based curriculum. She also had an understanding that the NZC allowed teachers to be more student-centred and to 'teach units based on the needs/culture and direction of their students'. (Marcy, survey)

By mid-project, Marcy was considering multiple ways of knowing. She observed her students dancing in expressive, organic and elemental ways, as a 'way of feeling, doing ... being, ... they make their own choices'. (Marcy, interview 1). She challenged the use of specific learning intentions, given the need to be 'in the moment' and responsive to student ideas. Marcy recognised that engaging with understanding in dance this way provided an opportunity to explore and value a diverse range of cultural ways of knowing: 'we are all different—not everyone is good at reading and writing'.

5. *Shifts in ideas about the big purposes of education.* Marcy's ideas about the ways in which dance can embrace indigenous ways of knowing developed during the project. She valued culturally diverse knowledge and strengthened her ideas about catering for diversity: '... thinking about everybody, and some people have different strengths and certain intelligences' (Marcy, interview 1). She emphasised the importance of building a community that valued difference and recognised the needs of the students. By the second interview and the end-of-year survey, Marcy's ideas had shifted further. She saw the way the learning areas could be integrated and she staked a claim for an embodied way of learning: 'The body is just as important as literacy and numeracy'. The need for students to experience, experiment and to take risks became more important in her understandings of the role of education in society. She increasingly valued the emotional/affective element (Boler, 1999), emphasising her aim for students to be 'happy, confident, interested and aware of the world, relaxed not anxious'.

Key words such as 'creativity' and 'connectedness' appeared and she expressed a concern that she as a teacher didn't 'do enough creative work—it worries me the manageability of the kids, and me coming up with the next idea—the flow... [It's] hard to know how to do it!' She recognised that this way of working has risks. The process calls into question the traditional power relationships that characterise the primary school classroom and the role of the teacher in maintaining control over both minds and bodies through fear (Taubman, 2006).

Lulu's shifting understandings of knowledge and learning

Lulu is a first year teacher of a Year 0-1 class at a decile seven school who has had a background of dance training and a strong interest in education for sustainability.

- 1. Shifts in definition of DiNE.* Lulu's starting position for placing dance in the curriculum was defined by her own experiences. She had some contemporary dance training but she did not understand how to start developing dance knowledge with her young charges. In class visits, we used a blend of the arts to deepen the concepts of education for sustainability and to enhance the values and key competencies of the NZC using two popular children's stories: *Tangaroa's Gift* (Mere Schollum) and *The Lorax* (Dr Seuss). Both stories had plenty of scope for movement and dance, dramatic interpretation and opportunities to investigate the plight of the characters. There were also deep environmental issues that could be explored.

At the mid-point of the process, Lulu was articulating her new understandings about dance in education, viewing it as being tied in closely to values and the 'key competences' of the NZC. 'Instead of just being teaching technique ... there's values. Not as a means to an end—it's a tool for deeper understanding' (Lulu, interview 1). She refined her beliefs further in the same interview when asked what had been different in her dance teaching as a result of the professional development process: 'Giving the children freedom to explore, being more child-centred ... I've always tried to do it but it's been more teacher-led'.
- 2. Shifts in ideas about the role of the teacher.* In the beginning survey, Lulu displayed limited understanding of her role as a teacher. By interview 1, Lulu's ideas on the teacher's role had expanded to include an emphasis on 'learning alongside, being actively involved in the learning, facilitating and guiding, and modeling the key competencies. Providing opportunities for innovation and creativity and constructing knowledge'. Lulu used the descriptor 'beyond the academic' when describing the natural and spontaneous play that was emerging. She went on to explain: '...as in putting in lots of facts, the logical sense of things, the rational. We learn through our senses, kinesthetic (learning) is much richer, ...and as adults too.'

By the mid-point interview, Lulu stressed the importance of questioning to guide and to facilitate learning. She mused on the definition of DiNE.

I think a lot of people see dance—like ... 'we'll do some folk dance'—it's just 'doing' a dance, it's not exploring an issue ...and I think what's really important is the role of the teacher through ...questioning, to guide and facilitate as well.

During the final interview, Lulu emphasised the idea of their being 'in the learning together' and she crystallised ideas about the role of the teacher as one of an artist: 'I participate alongside them ... discovery is big for me, learning alongside them. I am guiding and facilitating but I am in the process—creating it together'. Her teaching process had become more one of 'becoming' rather than of 'arrival' (Alexander, 2005) and she showed a greater readiness to engage with uncertainty.
- 3. Shifts in ideas about knowledge and the importance of the body and embodied learning.* Lulu's comments in the mid-point and final interviews included multiple references to her students' way of being. Her definition of knowledge in the final survey included key words such as 'being', 'connectedness' and 'creativity'.

Lulu was finely attuned to her young charges and during the first half of the professional learning and development process, she constantly observed her students and reflected on what dance (also drama and music) had to offer both during and after the lessons. She integrated purposeful written language opportunities, encouraged literacy outcomes and evaluated her students' writing. She also worked closely with the visual arts adviser. Lulu frequently described the pleasure, engagement, focus and intensity of her students. In interview 1, she reflected on the gains in the children's sense and control of their bodies and spoke directly of their 'heightened awareness of body'.

Lulu showed surprise at the quality of the children's connection and at their emotional involvement in the story. She noted that 'the children showed empathy with Pua and created a safe place for him'. She commented on her students' way of being during these sessions. 'We used music all the time. Their state of being—they were so happy, very creative asking 'what if, what if?' There was social cohesion and the problem solving was beautiful' (Lulu, interview 1).

When describing the complex inter-relatedness of body and mind, Lulu observed:

I think through moving you are using your senses as well ... through using your body, that triggers your brain to think, so you are not just communicating something through your body, but like using your body to do something that does trigger your emotions and your thinking as well. It's really hard to put into words. (Lulu, interview 1)

4. *Shifts in ideas about knowledge and the intention in the NZC.* By the mid-point, Lulu was emphasising holistic learning and embodied knowledge. She saw, in the NZC, an opportunity to allow for diversity and different intelligences. She described the way of learning in DiNE as '... using different 'modes'—really connecting with the content and putting it in the body'. This term 'modes' she used again when asked to elaborate on holistic education. 'I mean not just sitting down and learning, but just kind of like ... multiple intelligences, you're actually using kinesthetic, you're using the visual, you're using more poetic, you're using different approaches, different modes...' (Lulu, interview 1).

During the last interview, Lulu expressed her strong belief that the ideals of the NZC were being implemented through this kind of work.

5. *Shifts in ideas about the big purposes of education.* In the first survey Lulu's description of 'what knowledge is' included some rhetoric as she explained her ideas about 'shared understanding' and the idea that knowledge is 'confirmed and constructed through interpretation of experience'. However, she delivered a profound statement about knowledge in the final interview. In a drama incident in *The Lorax*, the children had to make an environmental call arguing against the Lorax. They wanted to have the ice cream and they knew that, to have it, they would have to clear the land for dairying. Lulu stated categorically and with a laugh that 'you can't know it unless you've been there!' She acknowledged the value of experience and demonstrated an orientation towards process.

At the mid-point, Lulu explained that the aim of education might be to become actively curious. She emphasised the ability to be creative, innovative and willing to 'have a go' and improvise. When returning to the 'learning is about ...' survey question at the end of the research period she added: 'Risk-taking, being resilient, being involved and being creative, working together, learning from each other ... I see the teacher as a learner too'. When asked for three key words that might best capture her ideas about education in the twenty-first century, Lulu said: 'co-construction, creativity, identity and confidence'. Asked what she had learned that was unexpected during the professional development process, she replied: 'To focus on one aspect deeply is well worth it—[you] can see in the range of movement, understanding and connectedness. It's quality rather than quantity. Go small but deep'.

Part 2: Analysis of my own learning

In this section, I explore my own shifting conceptualisations of knowledge and learning. The shifts have happened on a number of levels and involve the increasingly interwoven personal and professional identities.

I have identified four areas of understanding about knowledge and learning that have shifted or been strengthened as the result of participating in the project. These include ideas about dance, the professional development of teachers, the potential of the NZC in expanding understandings about knowledge and learning and the bigger purposes of education. I provide three snapshots of the stages I went through in understanding these ideas: before the project began, in the middle stages and at the end of the study. I conclude this section with some observations about what I now understand as the processes involved in shifting mean for me.

My ideas about dance when entering the project were already in a state of flux, especially after the experience in Vanuatu where I had joined in the 'village dance'. I was also studying the Orff-Schulwerk approach as part of a master's programme and had experienced some intensive training in this approach. This training served to consolidate my own views about the holistic and integrated nature of sound, arts and dance. My own dance experiences and my willingness to surrender to the present when choreographing were enhanced as I trialled new processes with the many classes and teachers I was working with. I was interested in deepening my understanding of indigenous ways of knowing, specifically through sound and dance.

During the project, my contract as an adviser changed and I began to work in the field of education for sustainability, as well as in my usual areas of drama and dance. I worked in close connection with the visual arts adviser, Helen, who was also an education for sustainability adviser. Together, Helen and I developed a more integrated approach using many education for sustainability principles and working to implement the revised NZC in schools. We sought cross-curricula links, flowing and blending between arts and social sciences and centering on rich themes.

Helen and I saw, along with the teachers, how quickly the students worked in their bodies—being, feeling and doing, using an Orff Schulwerk-inspired approach, and then how they were highly motivated to draw and create art (again using their bodies). Finally we saw how easily they moved into talking, thinking, critically evaluating and reflecting on their experiences. The reflection time crossed into language and relevant, rich literacy outcomes were achieved. The kind of thinking, the engagement of the learners and this way of working continually surprised teachers. There was more coherence—we went smaller but deeper. The idea of dance in education emerged out of this work and was strengthened by my involvement with the TLRI project.

Now my ideas regarding dance have shifted as I teach in the context of a traditional boys' primary school. I can see how dance can foster the co-construction of knowledge, how it empowers students to take risks, to engage with uncertainty and to learn how to learn. I understand how an integrated and holistic approach, using the DiNE model with its pleasure pedagogy, can lead to rich, vibrant and creative learning experiences that value different cultural ways of knowing.

But, in reality, the school timetable drives the learning experiences. Although I attempt to involve other teachers in a more integrated approach, the planning is disconnected. My dance lessons remain isolated. There is pressure to deliver a product so I have to teach dance steps and sequences to enable a senior production to take place. There is limited time to implement an integrated and holistic cross-curriculum approach unless schools are willing to crumple the allocated divisions of the school day and the segmented curriculum domains.

Increasingly in my classes, I draw on yoga (and other dance and drama centering practices) to produce a feeling of focus, calm and concentration, thereby enabling deeper thinking and learning to take place over a longer period of time. Students are aware of these processes and can describe how they feel after entering this state of 'flow'. Creative dance forms an integral part of the programme and through the use of games, boys readily enter into dance improvisation for extended periods of time. An integrated approach is continually sought to link across learning areas especially with the specialist music and science teachers.

My ideas about professional development of teachers have also changed. Before I entered the Teacher Education in the twenty first century project, I was struck by the ideas of Thomas Guskey (2006). I had come to an understanding that one key way to provoke change was to change what teachers do with their students. When teachers saw the effect on their students, they were more likely to reflect on, and develop, their own philosophy and pedagogies.

During the project, I realised that, despite my own philosophies, I had become somewhat seduced by the demands of teachers for 'activities', to provide easy 'recipes' to encourage their students to dance. Spurred on by the TE21 discussions around the purposes of curriculum change and my own learning about viewing knowledge in a broader sense, I started to run professional development sessions and especially staff meetings differently. By asking bigger questions, I sought to uncover teachers' views on the nature of the NZC before launching into the arts development they had requested. This provided teachers with the opportunity to reconnect to the bigger purpose of education and see themselves as engaged in meaningful and important work.

I strengthened the theories Helen and I had been discussing and developing about immersing teachers in a process and offering them a practical 'lived experience'. In workshops I wanted teachers to gain a different awareness in their own bodies. Teachers were required to be playful, to be creative in their bodies and to take risks. The lived workshop experience should ideally be followed up with in-class support and reflection time to dig deeper into the thinking behind the 'what, why and how' we teach.

There is continual tension for teachers between freedom and structure, between teaching for technique and teaching for creativity. Teachers are understandably fearful about 'letting go' and in many ways this way of working can not predict learning outcomes. Many teachers find it difficult to incorporate student ideas and be flexible when working in creative dance and arts practices. They might be grappling with their own need to 'manage' students and doubt their own content knowledge. When an adviser (or a trusted colleague) works alongside the teacher it is possible for teachers to embrace different ways of knowing.

My ideas about the NZC also developed over the course of the project. The discussions the project leader, Vanessa, facilitated intrigued me, as did the way Vanessa elicited thoughts and reflections from us as a group. She challenged us in a series of questions to make sense of the puzzle and find the connections. It was satisfying. This enabled me to re-signify and frame my own educational beliefs (Popkewitz, 1997). The dissonance I had been feeling with mainstream education had a place/reason. Influential academics (for example, Robinson, 2006) validated dance as a learning domain and gave me renewed energy to focus on the deconstruction of hierarchies of knowledge that seem to dominate in education.

During the project, I understood how the revised NZC had the potential to challenge these hierarchies. I considered the nature of intellect and the place of expressive responses in learning which the arts enhances. Prompted and challenged by my project mentor, I developed greater clarity, ownership and a renewed self confidence. The NZC gave me agency to focus on developing creativity and I gained more confidence and conviction to challenge teachers on the place of the arts, dance and the centrality of the body, and indeed, the bigger purposes of education.

On entering the project my ideas about knowledge were buried in the avalanche of curriculum objectives. However the project leaders approached curriculum reform on a global level and I was opened up to a much wider view. They introduced me to research that connected to my interests in indigenous knowledge, multiple literacies, and embodied knowledge (Alexander, 2005; Andreotti 2009; Bresler, 2004). My shifting conceptualisations of knowledge and learning spilled over directly into my conversations about the NZC with the research participants and the other teachers I was working with.

My ideas about knowledge are still morphing and expanding. I am guided more by many yogic teachings and Buddhist ways of viewing the world. I believe in the interrelatedness of all living things and the need to attune ourselves to live in the now. My beliefs about synchronicity have strengthened—that the beings, people, children and teachers who come into my circle of 'being' are there for a purpose; often to guide my learning and to help me gain new insights into life and into my own 'Being'. I trust the creative process and my ideas around holistic learning have solidified. I am learning to be more in the moment, to let go and go 'with the flow' (both in own life and in my teaching). The TLRI project offered the spiritual dimension a space where such ideas might be legitimised especially in the field of indigenous knowledges.

Finally, I have come to a different understanding of what the processes involved in shifting might mean. The project became the central unifier as everything fed into it. The project spiralled and was dynamic too; it looped and tied in the different aspects. A number of forces occurring in my personal and private lives have been synthesised and the congruence of these forces has acted as a catalyst. I understand that the congruence of forces in my life were (and continue) to lead me to let go and trust. I have identified a number that had an effect on me during the period of this project (Table 1).

Table 1 Identified catalysts

Orff training and teaching experiences	Holistic play-centred approach, elemental, master's work
TE21 project	Ideas about knowledge, like-minded people, KQ and VA, reflection + challenges
Books + readings	<i>The Tibetan book of Living and Dying</i> , <i>The Spell of the Sensuous</i> —Abrams, Manulani Meyer, Csikszentmihalyi, Eckhart Tolle
Working alongside visual artist, Helen Moore and integrating EfS into workshops	Experiencing the interconnectedness and flow in integrated holistic learning experiences
Practising yoga with sincerity	Flow, integration, mindfulness, meditation, purple light
Death processes of several friends and family	Sue J + Barb, + Paul, + Sheryl, also experiences with healings

In my experience such shifts:

1. are not sequential and are more about an expanding awareness
2. involve multiple selves; personal and work life are deeply intertwined and they affect each other
3. are dynamic, exciting processes that involve trust and intuitive awareness
4. involve being 'in the moment' which helps you go with the learning experience and the learning simply evolves from the experience
5. are constantly on the move, shaped by interactions and random events
6. are shaped by physical experiences in the environment
7. are sharpened by being close to the spiritual dimensions involved in the passing over process.

Conclusion and lessons learned

When teachers participate in a workshop and are immersed in the creative dance-making process they can experience a state of 'flow' when body, mind and spirit are working in harmony. The power and pleasure of movement will then be a 'lived experience' for each teacher. Further shifts can occur when teachers see their students experiencing this same process and observe their students' creativity, pleasure and focus. As teachers begin to co-teach using some of the strategies, further shifts occur as they become aware of the facilitation process and of the important role of the teacher working as an artist shaping the children's creative ideas.

As they observe and work alongside the facilitator/teacher educator and their own students, teachers move towards an expanded awareness of what DiNE can offer. They can begin to put more emphasis on the child as creator rather than the child as performer. Teachers become more attuned to the energy and flow in the classroom as children work physically, integrating thoughts and actions. This in turn can open up discussion regarding different ideas about knowledge and ways of being, and the purposes of education in the twenty-first century. As teachers reconceptualise knowledge, learning and the role of the body, their ideas about the purposes of schooling and education can be challenged and broadened.

When working alongside teachers in class using the DiNE model the following simple guidelines have proved useful for teachers:

- develop a playful atmosphere with energy and trust
- be yourself in it—teacher as artist
- facilitate creative exploration
- be in the moment and be responsive to student ideas—cultivate 'organic' specific learning outcomes

- be attentive to attentiveness
- ensure active learning using the dance elements as provided in the dance curriculum: body awareness, space, time and energy, relationships
- allow reflection time (use the action–reflection cycle)
- acknowledge the order/chaos of the creative process
- activate and liberate the power and pleasure of dance.

In the teacher professional learning and development process, my role is very much that of a catalyst and a guide. Firstly it is necessary to build a strong, trusting working relationship so that we can co-teach and ‘play together’ with the students. Over the past seven years, I have found modelling to be very successful as many teachers want to observe what a dance class progression might look and feel like. The reflective discussion that followed such sessions enabled teachers to identify key moments in the process and empowered them to step forward to co-teach thereafter.

My conclusions about effective professional learning and development are summarised below:

1. If teachers have a strong, lived experience of dance in education, they are more likely to shift their ideas about what dance actually is.
2. As they implement the process with their students and observe their students’ responses, they are more likely to alter how they teach. They will be more open to question the traditional role of the teacher.
3. When they see the creative flow and the positive effects of embodied learning and teaching on their students, they are more likely to expand their ideas about knowledge and learning (Guskey, 2006).
4. This, in turn, can lead to a new view of the ‘front end’ of the NZC.
5. It can also lead to an expanded consciousness about the bigger purposes of education.

The challenge for me was to trust the process and to be completely ‘in the moment’ myself, allowing a strong creative flow of energy and ideas. Too much planning seemed to interfere with this state and often the specific learning outcomes were identified *during* and *after* the class as students reflected on what they were experiencing and learning. Always an objective was for students to experience the power and pleasure of dance—to feel a sense of flow. An objective for the teacher was for them to recognise this state of attentiveness and complete engagement in their students.

For students the process might follow:

- being ... moving
- leading to feeling, then thinking
- introducing speaking and chanting
- discussing, reading, researching across the learning areas and writing.

There are wide-ranging implications for teaching and learning using this dance in education model. With the launch of the new curriculum, there is a desire for teachers to do less but do it better. There are eight learning areas and teachers have struggled to deal with the expected outcomes. The NZC outlines the need for schools to structure learning experiences offered to students by connecting the learning areas and linking these to the values and key competencies. Looking at those principles is interesting as they embody big ideas about us, about society and our values. The type of ‘integration’ that Orff was aiming for included music, language and dance, but underlying these were ideas and felt experiences about beauty, cultural identity and expression, about connections and belonging. The NZC has the potential to move educators towards these wider contexts.

The reality of school life is that teachers continue to teach as they have always done, new curriculum or not. To effect real change, I believe there must be a widening of conceptualisations of what it means to know and

learn. Systemic change is required to allow the connections across learning areas to be made real, breaking down the way knowledge is currently defined in discrete blocks.

To work in this way demands that we trust our instincts in the creative process. To be aware of uncertainty, to tolerate it and indeed welcome it is a hallmark of the artist as the boundaries into the unknown are gradually edged away, opening new possibilities and revealing previously unimagined wonderings (Quinliven, 2009). To encourage teachers to take risks and suspend judgement, to go into the unknown and tolerate uncertainty requires supportive, in-depth professional development. It will be timely and costly. It might mean working with artist/educators who are open to improvisation and trained to work alongside teachers in schools; or that more is invested in teacher education to train different types of teachers. It may be necessary to reframe what it means to be a teacher. Relinquishing the idea of a teacher as expert knower opens the possibility for a different kind of 'knower'—one who is open to the knowledges of body/mind/spirit working in conjunction—one who recognises the power of 'now' (Tolle, 2004) .

Claxton (2006) acknowledges the twenty-first century as a 'century of choice', a century of uncertainty and argues the need for a kind of education that prepares young people to engage confidently with high levels of challenge, complexity and individual responsibility. He presents the idea of 'expanding the capacity to learn' as the new end for education. If learners are to flourish in a diverse and changing world they need to learn to cope with, and welcome, uncertainty. The arts offer such opportunities particularly through the creative art-making processes outlined in the Orff-Schulwerk approach and this dance in education model, processes which are present in the 'developing ideas' strand of the arts achievement objectives in the NZC.

Body, mind and spirit working in conjunction allows a deep 'knowing' through thinking, doing, being, feeling and relating to self and others. There is a spirituality and way of knowing that embraces uncertainty—this is the learning (Alexander, 2005). The pathway might already be available to restore a more holistic view of learning, a way which moves beyond the separation of the mind and body and which works to integrate the senses.

Dance, art and music may be the pathway to the 'sacred "wairua" that language sometimes breaks'. (Penetito, cited in Andreotti, 2009). It is my understanding that the educational art of dance (using models such as those outlined here) has the potential to influence and help to redefine the lives of our young people.

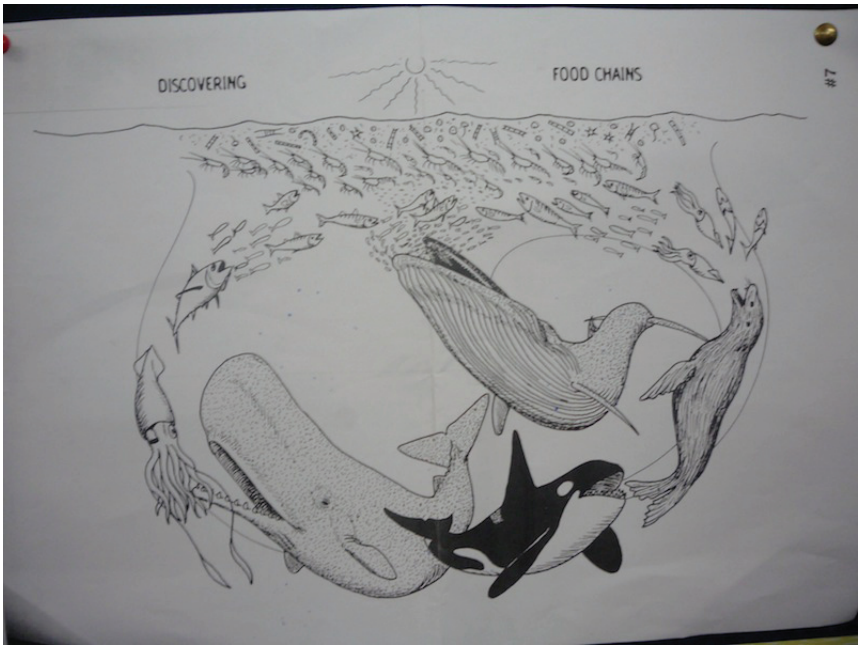
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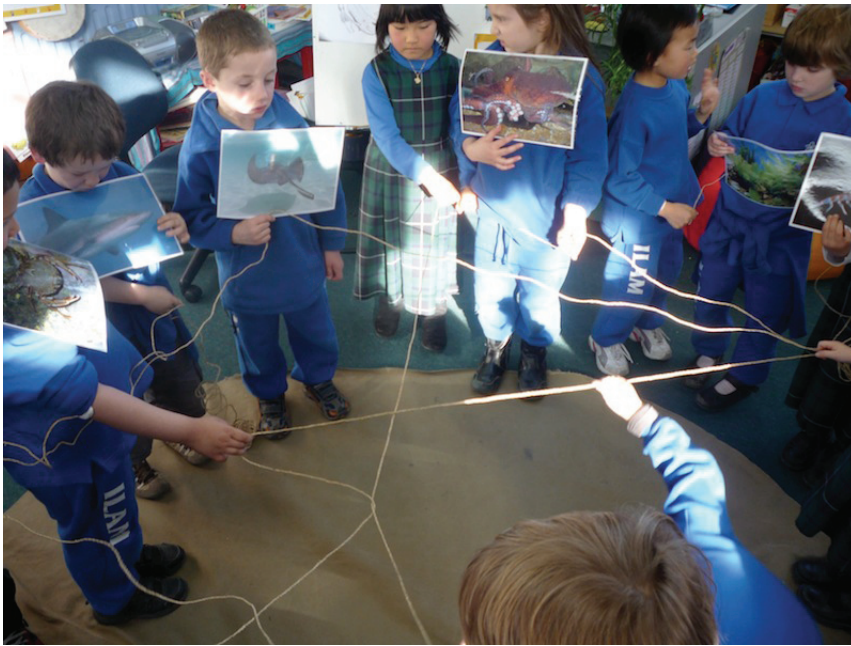
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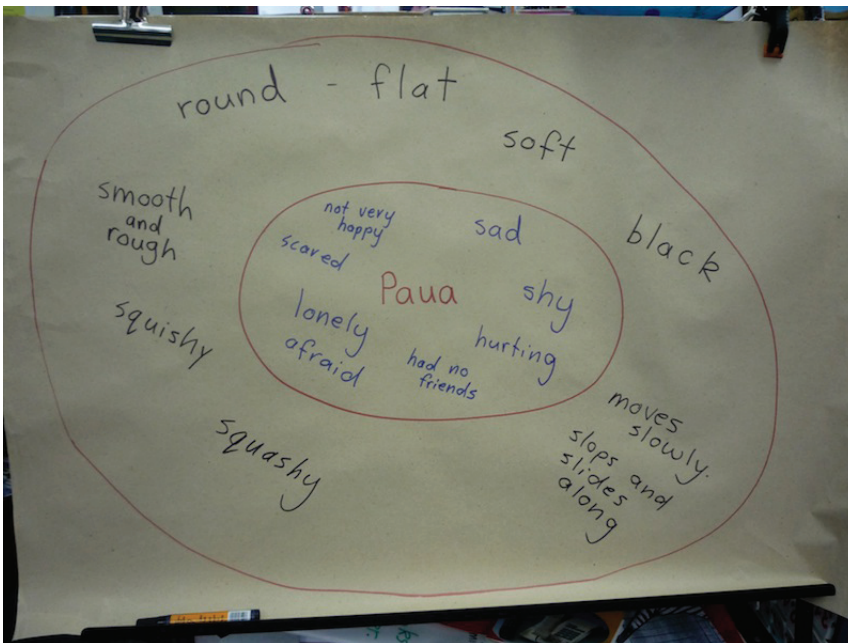
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Appendix 1









What is education for sustainability?

Education for sustainability is about learning to think and act in ways that will safeguard the future wellbeing of people and our planet.

What will my students do in education for sustainability?

Many contexts, topics or issues that students could explore have a connection to education for sustainability. There are opportunities in most areas for students to examine how the resources we use and what gets left over from living how we do affects the Earth.

Teachers can introduce students to attitudes and values towards the environment and create opportunities to explore their own. Students will also have opportunities to take action on issues that are meaningful to them, exploring why this is important and the skills they need to be successful.