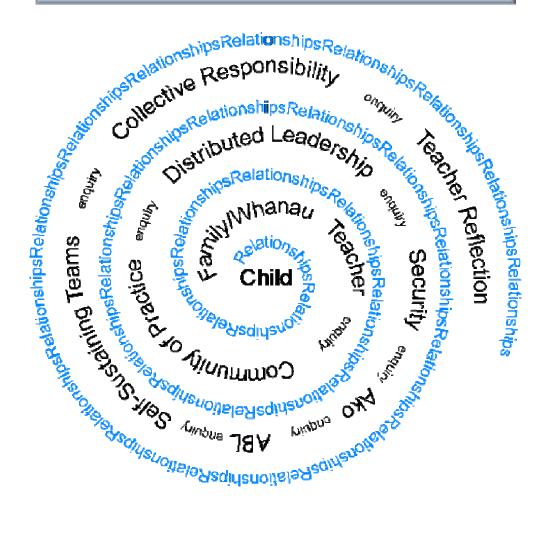
Ako Ngatahi Teaching and Learning Together as One



Life, Growth and Movement

Ako Ngatahi Teaching and Learning Together as One

From Leadership to Enquiry

Teachers' work in an Infants' and Toddlers' Centre

Centre of Innovation Report to the Ministry of Education

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Executive Summary

This report describes the Centre of Innovation action research project carried out in the Hoiho Section at Massey Child Care Centre Inc Palmerston North, between February 2005 and August 2007. The Hoiho Section of this centre was selected as one of the four centres in the second round of Centres of Innovation. Its defining characteristic was an innovative Attachment Based Learning programme for infants and toddlers (ABL), centred on relationships between teachers, children and families, within a community of practice framework. At the heart of this programme was the way in which leadership systems, including distributed leadership, supported the teachers' work with children. Children's enquiry was chosen as a focus for studying the children's learning and the ways in which the teachers supported this learning. The principal research question was: "In what ways does educational leadership, within a community of practice, impact on infants' and toddlers' disposition to enquire?"

The research was structured as a collaborative action research process, where the lead was taken by the teacher researchers, supported by the research associates. The research team consisted of the director of the Massey Child Care Centre, the manager and the assistant manager of the Hoiho Section, the five teachers in the section and the two research associates. They were supported by an Advisory Group of parents, teachers from other sections in the centre, and teachers from other early childhood care and education centres in Palmerston North. The ideas of this group helped to inform the team's reflection.

A case study approach was used to investigate the research question. Three children were chosen for the first round of action research, and a further three for the second round. Video recordings, field notes and journal entries were the principal method of data gathering. These were written up and the data analysed using the framework of the attachment-based learning system (*ABL*), leadership and enquiry to develop an understanding of the links between the organisational systems, the teachers' work and the children's enquiry. An advantage of video recordings was the ability to revisit the data in the light of further understandings and ideas. This helped the teacher researchers to frame up ideas and working theories as the action research progressed. Further data were gathered through the teachers' reflective journals. The data analysis was used to develop a framework for identifying the markers that underpinned a

disposition to enquire in infants and toddlers. These were: security, resourcefulness, resilience and reciprocity.

Data further analysed using Rogoff's three planes of interaction: were community/organisational, interpersonal and personal (Rogoff, 1998). In the organisational plane the ways in which distributed leadership was promoted and the ways in which formal leadership supported the system were studied. Teachers' work was found to be underpinned by an organisational culture that supported and sustained an emergent, distributed educational leadership system, valued research-based teaching and trusted teachers to work collaboratively. In the interpersonal plane, the ways in which teachers worked together to support children's learning were identified. Principal among these were: sharing expertise and knowledge; questioning and challenging; engaging in critical reflection; and establishing support networks and trusting collaborative relationships within the teaching group.

In the personal plane for teachers, they demonstrated a deeper understanding of the processes of leadership and took responsibility for leadership especially in curriculum matters. A number of teaching strategies were identified that supported the children's learning. These included identifying infants' and toddlers' independent exploration and supporting them through uncertainty in a number of ways. In the personal plane for children, infants' and toddlers' disposition to enquire was found to be embedded in their feelings of security, for both relationships and domain knowledge. When they did not feel secure, their enquiry behaviour diminished. The children's disposition to enquire, demonstrated through their resourcefulness, resilience and reciprocity, persisted though their transition to another section of the centre.

As a result of the study the teachers have a better appreciation of the value of research in informing their practice, and greater skills in research methods. They have a greater understanding of their own teaching methods and intentions and have added to their repertoire of teaching skills. They have become more able to articulate the ways in which they support the families they work with as key teachers, and are more aware of the ways in which they collaborate with other teachers. Massey Child Care Centre's Centre of Innovation project has strengthened, deepened and affirmed teachers' understandings of infants' and toddlers' learning and of the educational leadership systems that support this. They are better able to articulate their philosophy and practice and have developed as teacher researchers.

As the teachers have become more aware of the theoretical underpinnings of their teaching, they have developed a model that has clarified for themselves the mutually constitutive

processes that underpin their teaching and its outcomes. Their model depicts their understanding that outcomes for infants and toddlers in relation to their disposition to enquire are the result of attention to all aspects of the centre: a system of distributed leadership that enacts their philosophy of trust; empowerment of all participants in the centre; and the maintenance of security for infants and toddlers, parents and teachers.

Foundations of Enquiry



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Introduction

Massey Child Care Centre Inc is a large community-based centre with two under-two and two over-two sections. The centre was established in the early 1970s to meet the needs of the Massey University community in Palmerston North. It has steadily grown from the two rooms it initially started with to the present purpose-built facility, with four sections each with a separate licence, led by a director who is an early childhood teacher. It now has thirty staff members, and 129 part time and full time children enrolled. Massey Child Care Centre serves the multi-cultural university community. The Hoiho Section, which was chosen for this research, is one of two infant and toddler sections in the centre. It has a staff of seven and is licensed for twenty eight children but group size is kept to twenty children at any one time.

This action research project was commissioned by the Ministry of Education as part of a strategy in the New Zealand Government's ten year strategic plan, *Pathways to the Future: Ngā Huarahi Arataki* (2002), to improve the quality of early childhood services in New Zealand. The Centres of Innovation programme was established in 2003 to research aspects of quality that would provide information about effective practices in teaching and learning; to develop resources; and to share knowledge, understandings and models of good practice by a dissemination programme. The Hoiho Section of Massey Child Care Centre was one of four centres selected towards the end of 2004 for the second round of the COI programme. Effective and innovative approaches to educational leadership, and to the education and care of infants and toddlers were two of the areas of special focus for this round. The current national growth of infants and toddlers in education and care centres in New Zealand made this research especially significant as did the current shortage of research into educational leadership in early childhood services.

The COI contract is a three-year contract. The action research was a collaborative project, led by the director of the centre and the managers and the teachers of the Hoiho Section. They have been supported by the associate researchers, both academic staff members from Massey University. Being involved in this research has given the section an invaluable opportunity to examine a leadership system situated within a community of practice in the context of an innovative infants' and toddlers' programme.

Theoretical frameworks

The principal research question was:

"In what ways does educational leadership, within a community of practice, impact on infants' and toddlers' disposition to enquire?"

The centre's innovations were identified as the community of practice, the system of distributed leadership, and the attachment based learning system for infants and toddlers (ABL). A disposition to enquire in infants and toddlers was the topic chosen for this research study. The theoretical frameworks that underpinned the initiative and the study are discussed in detail in the following chapters. Briefly, they are:

The community of practice framework

For this centre, the development of the community of practice has been based on the ideas of Etienne Wenger (1998) where the three dimensions of engagement are:

mutual engagement: the community negotiating and talking to each other about what they do; a joint enterprise: the community working together in a situation where they are mutually accountable for what they do; and

a shared repertoire: over time, the members of the community forming systems and processes where they can negotiate meaning. For ECE staff, this may include staff meetings, professional development, opportunities to talk about what they are doing, notebooks and learning stories, and so on.

Distributed leadership

Distributed leadership in this centre has been underpinned by the community of practice ideas, especially the ideas of shared context, trust and cohesion. Leadership within a community of practice implies a system of distributed or shared leadership, which emphasizes collective responsibility where "the focus is less upon the characteristics of 'the leader' and more upon creating shared contexts for learning and developing leadership capacity" (Harris, 2004, p. 19). The emphasis has been on building leadership capacity for teacher-leaders, especially in educational (curriculum) leadership.

Te Whāriki

An overarching principle of the New Zealand early childhood curriculum document, Te Whāriki (Ministry of Education, 1996) is one of relationships and the importance of these relationships in young children's lives. Te Whāriki also outlines key curriculum requirements for both infants and toddlers, including the statement, "an adult who is consistently responsible for, and available to, each infant" (p. 22). Te Whāriki holds at its core the philosophy of a community of relationships, which involve the teachers, children, families/whānau and the community. To implement these principles fully requires a commitment by teachers to develop responsive, reciprocal, respectful relationships between all parties involved with the infant or toddler.

Attachment Based Learning (ABL)

The essence of the *ABL* programme is the promotion of what Claxton and Carr (2004) describe as a "potentiating, powerful and inviting" learning environment for infants and toddlers as a supporting frame for them to become disposed to learning. The aim of the programme is to foster relationships in order to establish secure attachments for infants and toddlers. The programme promotes an environment in which infants and toddlers are seen as powerful, inquisitive, intelligent, competent and capable. Research has clearly identified that ongoing strong, caring relationships can provide the context for all aspects of healthy growth, learning and development (Edwards & Raikes, 2002; Rolfe, 2004; Gonzalez-Mena & Eyer, 2004). This continually confirms the teachers' belief in the importance of attachment theory: of consistent, secure relationships in the children's lives.

A disposition to enquire

The section's work on enquiry was underpinned by the work on dispositions carried out by Carr and Claxton (2002). Dispositions to learn are defined as learning (or coping) strategies that have become habits of mind, tendencies to respond to, edit and select from, situations in certain ways (Carr, 2000). While to some extent dispositions reflect innate traits of temperament, research indicates that learning dispositions are strongly influenced by the cultural and social context of children's experiences (Carr, 2001).

Enquiry consists of three compelling urges, in the social, the intellectual and the personal realms:

- to connect with others (social): infants and toddlers are intrinsically social;
- to understand the world (intellectual): infants and toddlers are intrinsically motivated to learn, to problem-solve, to be curious and to explore; and
- to reveal oneself within the world (personal): infants and toddlers are individuals, each with their own personalities that they show to the world. (Rogoff, 1990; Wells-Lindfors, 1999).

However, in order to develop a disposition to enquire, children need to engage fully in the enquiry; "sitting on the sidelines" is not enough. Engagement may not always be verbal, but there must be some kind of involvement in an enquiry event, even if this takes place at a later date following the child's "intent participation" of watching (Rogoff, 1998).

Three planes of activity

The theoretical framework used to formulate the design and subsequent analysis was based on Rogoff's three planes of activity. Rogoff (1995, cited in Rogoff, 1998, p. 688) says that "the examination of individual, personal and community/institutional development processes involves differing planes of observation and analysis". The idea of these three planes being mutually constitutive of each other and of being able to background two planes while focusing on the foregrounded one, was useful in the analysis of the centre policies and workings, of teaching, and of relationships and enquiry. The planes were used to identify how children's attachments with teachers and with other children, viewed through their dispositions to enquire, were supported. The Centre of Innovation research analysis constantly changed lenses from one plane to the other, in order to illuminate the processes that underpinned children's learning, the teachers' interactions, and the distributed leadership system.

Framework of the report

The first part of this report (Chapters One to Five) concentrates on the work that took place within the Hoiho Section of Massey Child Care Centre. It begins by describing in detail the innovations that were responsible for the Massey Child Care Centre and the Hoiho Section being chosen as a Centre of Innovation. It then explains the methodology used for the research and explores the ethical difficulties in collaborative field-based research. The ways in which the teachers' collaborative working methods support enquiry, and their growing

understanding of the implications of their leadership actions as the action research progressed are discussed. The meaning of "enquiry" in the context of an infants' and toddlers' centre is investigated and markers to identify a disposition to enquire are presented. The findings from this part of the research are then drawn together and a model developed by the research team is presented and discussed.

The second part (Chapters Six to Eight) examines work done outside the Hoiho Section. In Chapter Six action research into the robustness of enquiry during transition to a section for over two year old children is investigated. The effects of the action research dissemination processes are then described and evaluated. Finally, the effects of the research process on the teacher researchers and the research associates is examined and a summary of the findings of the research are presented and discussed.

Chapter One

Context and Innovations

Introduction

Massey Child Care Centre has been developing its present policy and structures since 1998. The three key structures that have contributed to the make-up of the organisational and learning culture and the context in which they were developed are:

- the community of practice;
- distributed leadership: and
- the Attachment Based Learning programme (*ABL*).

This chapter will explain the history and foundation of the innovations and detail the supporting structures that have enabled their implementation across the centre overall and in the Hoiho Section in particular.

Massey Child Care Centre's Community of Practice

Massey Child Care Centre has defined itself as a community of learners that encompasses children and their families/whānau; staff and management; and the wider community of the University and beyond. Within this learning community, an organisational structure has evolved which replaced hierarchal leadership structures with collaborative teams where collegiality and collaboration have been valued.

The whole centre, which consists of four interlinked sections with one management structure, has operated under a community of practice paradigm. The two over two sections (Kea and Kiwi) and the two under two sections (Hoiho and Tui) have worked closely together as parallel teams providing programmes in which teacher-parent-child relationships are central to all interactions.

Wenger and Snyder (2000, p.139) define communities of practice as "groups of people ... bound together by shared expertise and passion for a joint enterprise". They go on to say that

"people in communities of practice share their experiences and knowledge in free-flowing, creative ways that foster new approaches to problems". This is a generally accurate description of the professional learning community in operation at Massey Child Care Centre at the beginning of this action research. The collaborative teaching structure (community of practice) had evolved and changed shape over a period of the previous seven years or more, alongside the development of two programmes operating in the centre. They are the Community of Enquiry programme, operating in the Kea and Kiwi sections for children aged from two to five; and for infants and toddlers the Attachment Based Learning programme, operating in the Hoiho and Tui sections. The development of the programmes and the collaborative teaching structure has been research-based and was collectively developed through shared negotiation of meaning. The intention has been for teachers to be informed, understand what they are doing, and able to articulate their practice.

An ongoing emphasis has been placed on professional development by centre management, and on practitioners developing a learning culture within the centre. Two of the nine guiding principles of the centre's strategic plan include:

- Continuing Quality Improvement. "We will provide high quality care and education through the active promotion of a culture of Continuous Quality Improvement. An essential component of this is establishing and maintaining an active commitment to open communication and effective consultation between families and the Centre at all levels;" and
- *Innovation and Sector Leadership.* "We will research, recognise and take advantage of opportunities for continuous improvement and play a leadership role in evolving early childhood education at a regional and national level" (Massey Child Care Centre, 2004).

The principles laid the foundation for, and have been considered as, core components that the centre community staff have committed to in the everyday application, management and planning of the learning and working environment. This environment has promoted growth and change, facilitated by the expertise and knowledge of centre leaders, in collaboration with staff teams and others in the learning community.

Refining Massey Child Care Centre's Community of Practice

In 2003 a decision was made by the director and managers to develop and promote the concept of a learning community within the centre. The then organisational culture of the

centre that respected and included all teachers in decision making processes; valued and encouraged professional development; supported change and development; and embraced innovation was a strong foundation for this development. The ideas that a community of learners:

- values each member's contribution, as teachers work collaboratively to improve teaching and learning;
- fosters emergent leadership; and
- promotes personal and group growth

were powerful factors in the decision.

At a very carefully planned and researched teacher-only day early in the following year the concept and theory were introduced to all staff. At this point the emphasis was on the term 'community of learners', but as the dialogue progressed and the meaning and structure of centre and section practices were examined in depth, it became clear that it was more accurate to say that the centre was operating a community of practice paradigm within a learning community. In collaboration with all staff, the following diagrams were designed to reflect the Massey Child Care Centre's community of learning and community of practice ideology.

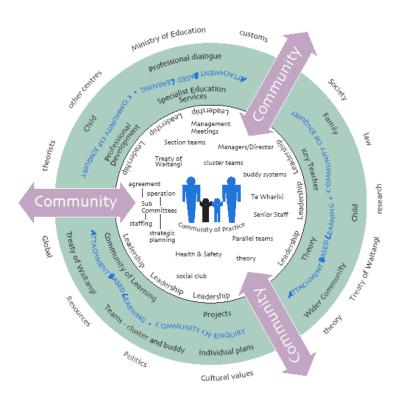


Diagram 1.1: Overview of Massey Child Care Centre's Learning Community, 2004.

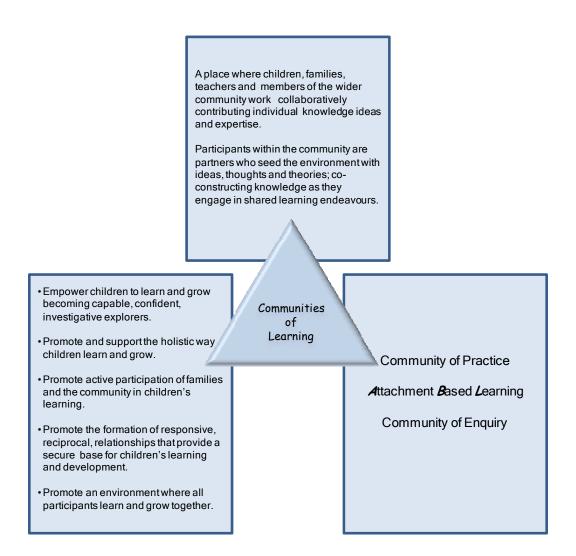


Diagram 1. 2: Massey Child Care Centre Communities of Learning, 2004

What did the community of practice look like?

The community of practice approach developed in 2004 has encouraged all members of the community to share and participate. Members have expected, and even demanded, critical reflection on practice, questioning and challenging of processes and practices, ongoing educational research and in-depth regular professional dialogue.

The policy statements, initially written as early as 2002 and updated regularly, emphasised that the community of practice required participants to share their expertise and actively seek further knowledge. Interactive enquiry, where participants seed the environment with ideas, knowledge, theories, strategies, practices, values and beliefs, was promoted between

members. This was intended to stimulate professional discussion in an environment that was both non-threatening and respectful. There was a collective responsibility from all members of the community to provoke improvement and change.

The community worked towards fostering and supporting emergent leadership. Teachers were encouraged to take responsibility for the effective running of the programme and their own personal and professional development. The environment provided regular opportunities, formal and informal, for members to anticipate and engage in professional dialogue in order to enhance their practice. Teachers were constantly asked to critically reflect on practice, both individually and as a group. This happened with colleagues, managers, at staff meetings, or as written reflections in their individual Profiles of Action Learning (PALs) which are described later in the chapter. These constant interactions between teachers, the children, and the programme, have been what is described by Schwab (1969) as a "deliberative approach" to professional development.

The organisational culture within the community of practice encouraged teachers to engage in an evolving spiral of professional and personal development where pedagogy was refined and new ideas, theories and innovations were explored. Through research, and consultation and collaboration with managers and colleagues, personal and group goals were agreed on. These often resulted in an action research cycle that promoted change or improvement. Teachers had the power and responsibility to drive their own personal and professional development and systems were developed to promote opportunities for them to engage in professional dialogue and critical reflection. The emphasis on research, professional dialogue, and a shared knowledge and understanding of the programme, children and families was intended to equip teachers with the skills to develop the best possible solutions to enhance their pedagogy and children's learning.

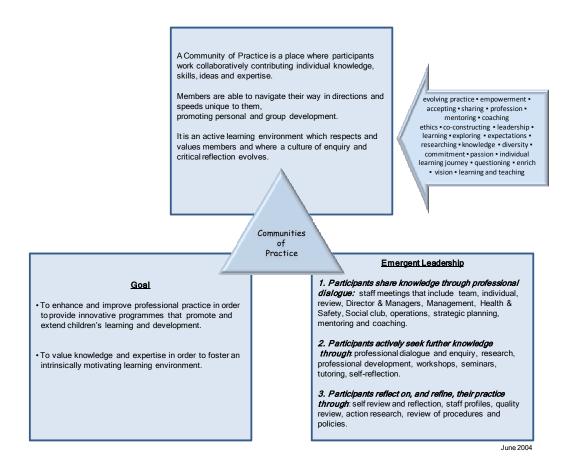


Diagram 1.3: Massey Child Care Centre Community of Practice 2004

"Enabling engagement": Supporting structures

The centre's development of structures was underpinned by Wenger's ideas of community of practice. Wenger (1998) describes three dimensions that can be related to the coherence of a community when associating it with practice. These are:

- 1. mutual engagement
- 2. a joint enterprise
- 3. a shared repertoire of systems and processes formed over time, where meaning is negotiated.

For Wenger, mutual engagement is what defines the community, and whatever it takes to make it possible is an essential component of practice. Mutual engagement in practice creates relationships among people which can be diverse and complex, including conflict and tension as well as harmony and happiness. Negotiation by the community determines and shapes the practice and results in a mutual accountability among its members that can develop practice

as well as monitoring and self monitoring of performance. Practice evolves through the community's collective response to situations as it negotiates its way to shared understandings. This does not mean that everybody agrees with everything or believes in the same thing; challenges and disagreements have been seen as a productive part of the enterprise and require a great deal of trust and respect in the members' relationships.

As members of the community work collectively on the enterprise, a shared history of engagement is developed over time that becomes a resource for negotiating meaning. Such things as routines, policies, procedures, language, artefacts, staff meetings, and general ways of doing things that have been developed over the course of time became shared points of reference used in the production of new meanings. Coherence has been gained from the fact that the philosphical meanings, policy and resources belong to the community that is pursuing the enterprise.

To enable the kind of coherence that develops into a shared practice negotiated by the community, several aspects of the centre organisational culture were reviewed, improved or refined. These included the fostering of professional dialogue and critical reflection; professional development; and self review.

Professional dialogue and critical reflection

Making engagement possible, particularly in relation to professional dialogue and additional opportunities to reflect on practice, was one of the first issues to be explored in 2003-04. Simple things such as the structure of staff meetings were changed, to allow more time for staff to meet in small groups or pairs to discuss planning and teacher practices. The child noncontact schedules were altered to facilitate one-on-one discussions between teachers. Teachers were encouraged to engage in dialogue with each other whenever they could as a key element of their practice. It was noticeable after a relatively short period of time that increased interactive dialogue about professional knowledge and practice was happening in all areas of the centre, including staff rooms. Specific time was allocated at the weekly director and managers' meetings for professional dialogue and a further group was set up for managers and assistant managers of parallel sections to meet bi-monthly for ongoing reflection and review of programmes and practices. The centre management felt that a critically reflective culture was evolving in which individuals were reflecting on their own practice and the practices within the community.

Part of the centre's shared repertoire was regular one-on-one meetings between managers and individual teachers to discuss practice, which took place during the managers' scheduled four hours of release time. As these collaborative discussions became more indepth, time became an issue. Management made the decision to increase the hours of the release teacher for each manager from four hours to six hours per week to foster the development of the community of practice and improve teaching and learning.

Professional Development: Staff Profiles of Action Learning (PALs)

Staff appraisal/performance management systems have been developed, redeveloped and then further developed and renamed both prior to and since 2004. To support the community of practice philosophy that required staff to reflect on their practices and take responsibility for their own learning and growth, in 2003-4 a policy was developed in conjunction with the staff that enabled them to drive their own learning and development in consultation and collaboration with their managers and other colleagues. From 2004, progress and reflection has been recorded in teachers' portfolios. This system, which required teachers to undertake at least two action research cycles a year as well as show evidence of critical reflection on other teacher dimensions, replaced a more structured staff appraisal system. Teachers' journals may include examples of practice, copies of relevant documentation, relevant readings, or professional development course reflection. An ongoing record of professional development and growth has been a result. A significant change in staff attitudes to performance management and to individual learning has also been evident since the change.

Self Review

A review of what was then called the Quality Review System was scheduled shortly after the centre embraced the community of practice philosophy. It was felt that the current system did not enable the ongoing reflection required for the evolving spiral of group and personal growth that supports mutual engagement and joint enterprise. A revised system was introduced to ensure that continual, ongoing self review of teacher practice occurred as a means of systematic enquiry. To achieve this, a significant amount of time was scheduled at both senior staff meetings and section staff meetings for professional dialogue. Collaborative inquiry could be initiated at staff meetings, through group or individual professional development, literature or research.

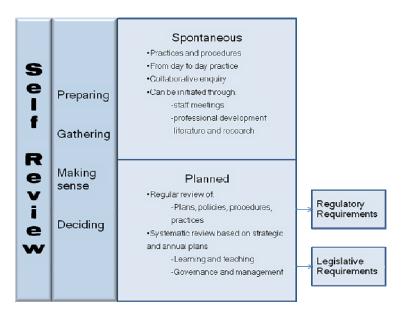


Figure 1.1 Massey Child Care Centre Review Structure, 2004

Distributed Leadership

As previously mentioned, a major factor in the decision to develop the concepts of a community of practice was the significance of emergent leadership within the framework. A sociocultural approach to leadership leadership emphasises collaboration and participation and is socially and culturally mediated. This approach as practiced by Massey Child Care Centre teams encompassed key concepts of a community of practice (Wenger, 1998), within which leadership skills were enhanced through collaborative interactions and strong relationships.

As the community of practice ideology developed, teachers' journals showed that they felt empowered to take responsibility to use their capabilities and strengths; the formal leaders discussed learning to 'let go' some of the power, and a shift in the attitude of all members of the teams became evident. Team members included educators who were either in training or had some form of early childhood education certificate that was less than a diploma of teaching or degree in education. As the teachers' perception of themselves changed, with the emphasis and expectation that each person take responsibility for being an active participant in the learning community, the culture within the centre also changed. Team members worked more collectively to share knowledge and practice, supported and mentored by managers and each other. Intrinsic motivation seemed to be the key, as each team member took responsibility to make it work.

What did distributed leadership look like?

As the community of practice and leadership framework and concepts were explored, the centre discovered the complexities and 'layers' that make up leadership in the centre. They developed this statement:

All people within our environment are responsible and accountable for all areas of the section programme, environment, relationships and personal and group development. Teams work together to find the best path: they understand that no one way is the right way; there are many different ways to achieve goals, ideas and visions. We recognise that all people in our environment have expertise, skills and their own special talents. It is the responsibility of each team member to share, listen, support, and try; thus ensuring the best possible outcomes for everyone in the environment. Distributed leadership is about each team member stepping up to take on differing roles, recognising that there is a collective responsibility and that sharing ideas and expertise in this environment is expected. If there are issues or problems then it is everyone's role to think, suggest, try, and be prepared to face challenges. Having teachers in our environment who are prepared to take risks and challenge ideas means that opportunities for new ideas and new ways of being can flourish (Massey Child Care Centre, 2004).

Operating within this distributed leadership model required the manager and assistant manager to provide an approach to leadership that accepted, adapted and welcomed change. Managers and assistant managers worked together to guide and mentor teachers through ongoing change and improvement, providing and offering opportunities for professional dialogue and reflection on practice, and supporting individuals in their own professional growth and development.

Distributed leadership: Supporting structures

Key teacher system

A key teacher system was developed and was well established in all sections of the centre by 2004. Children and families/whānau were allocated to specific teachers. This system supported the development of critical attachment relationships, and facilitated the development of a child's positive sense of self. Key teachers were recognised as the people who have the most knowledge about each child and their family/whānau. It has been their responsibility to share this knowledge and make decisions regarding the child's learning and development, teaching and learning strategies, and teacher practices, in collaboration with the rest of the team.

An important facet of the key teacher system has been the buddy pair groupings, where two key teachers work closely together to support their children, families and whānau. This collective responsibility requires each teacher to share knowledge and practice, liaise with families, and take responsibility for the implementation of the programme. Each teacher has the responsibility to enable the programme to run effectively for children, families and staff.

Self-sustaining teams

Self sustaining teams have been inherent in the implementation of our community of practice across the centre. Hierarchal leadership structures were replaced with a collaborative approach. Self sustaining teams maximise the skills and talents of all team members, requiring teachers to work cohesively for the best interest of the children, families and each other.

The team has managed, and was accountable for, the day to day operations of the programme. Teachers have instigated reviews on practice and often led and implemented change or improvements. Rosters, responsibilities, meal breaks and non-contact times were made flexible, negotiated and have been coordinated by the team. Negotiation of these responsibilities on a daily basis was developed around the needs and requirements of the children and the programme.

Each section team implemented this system in its own way in response to programme requirements. An explanation of how it has operated as a supporting structure for the *ABL* programme in the Hoiho Section is provided in the next section of this chapter.

Attachment Based Learning Programme (ABL)

Massey Child Care Centre has operated two programmes with similar philosophical underpinnings for the two age groups. A shared repertoire of meanings to do with the nature of early childhood education and care has underpinned these programmes. The image of the child as an agent in their own learning, competent in their abilities, thinking, perspectives and desires (*Te Whāriki*, 1966) has been inherent in both. A fundamental component of the system has been the establishment of responsive, reciprocal and respectful relationships between all stakeholders within the community. These stakeholders have included the children, parents/whānau, teachers, management group and the centre Management Committee.

An overarching principle of the New Zealand early childhood curriculum document, Te Whāriki (Ministry of Education, 1996) is one of relationships and the importance of these relationships in young children's lives. The principles as set out in Te Whāriki are empowerment, holistic development, family/whānau and community, and relationships. The leading statement for the principle of relationships states that "children learn through responsive and reciprocal relationships with people, places, and things" (p. 14). Many indicators in the curriculum document that reinforce this philosophy of relationships, including, "adults know the children well, providing the basis for the 'give and take' of communication and learning' (p.43). Te Whāriki also outlines key curriculum requirements for both infants and toddlers, including the statement, "an adult who is consistently responsible for, and available to, each infant" (p. 22). Te Whāriki holds at its core the philosophy of a community of relationships, which involve the teachers, children, families/whānau and the community. To implement these principles fully has required a commitment by teachers to develop responsive, reciprocal, respectful relationships between all parties involved with the infant/toddler.

The Programme

The *ABL* programme was designed and developed around *Te Whāriki*. It evolved and changed shape and direction over the period of seven years before the Centre entered the Centre of Innovation, and in the subsequent three years. The essence of the programme has been the promotion of what Claxton and Carr (2004) describe as a "potentiating, powerful and inviting" learning environment for infants and toddlers as a supporting frame for them to become disposed to learning.

The *ABL* programme has recognised that the environment has a profound influence on what and how infants and toddlers learn. It has been informed by research and theory such as Carr and Claxton, who discuss where learning dispositions are situated in an environment. They say: "the manifestation of learning dispositions will be closely linked to the learning opportunities, affordances and constraints available in each new setting" (Carr & Claxton, 2002, p.12) The environment for infants and toddlers is seen as needing to keep their motivation, experimentation and curiosity alive, to encourage them to be self-motivated learners. To this end, the practices and intentions of the teachers who frame the environment are important. The sound knowledge of the child and family/whānau that has developed with the *ABL* programme has aimed to enable teachers to know the children they work with, to

design the environment to support children's learning and development and to promote infants' and toddlers' dispositions for learning.

The aim of the programme has been to foster relationships in order to establish secure attachments for infants and toddlers. The programme has promoted an environment in which infants and toddlers are seen as powerful, inquisitive, intelligent, competent and capable. The belief that learning and teaching should focus on each child in relation to other children, the family/whānau, the teachers and the community rather than on individuals in isolation has also been promoted.

Over the years before they became a Centre of Innovation, and subsequently, teachers constantly revisited theory relating to teaching and learning and in particular attachment theory in relation to infants and toddlers in group care. This research has clearly identified that ongoing strong, caring relationships can provide the context for all aspects of healthy growth, learning and development (Edwards & Raikes, 2002; Rolfe, 2004; Gonzalez-Mena & Eyer, 2004). This has continually confirmed the teachers' belief in the importance of consistent, secure relationships in the children's lives.

The *ABL* programme has been designed to foster the development of each child's individuality, recognising that all children have their own learning style. This approach has contributed to infants' and toddlers' sense of belonging to a learning community, and to strengthening their identity as learners. The children have been encouraged to steer their learning in directions and speeds unique to them, promoting personal and group development. The programme has recognised that children learn holistically within a social context, experiencing all facets of learning collectively. Numerous opportunities for infants and toddlers, their families/whānau, and teachers to learn with and from each other have been initiated.

Attachment: the theory that underpins the programme

Attachment theory highlights the importance of infants and toddlers in early childhood settings having the availability of consistent, sensitive and responsive teachers (Watson, 2001). The literature shows that the presence of these secure child-teacher relationships promote the development of a child's positive sense of self, advanced types of play and more positive peer relationships. This theoretical position was used to support the *ABL* programme. It allows the child to develop, as Raikes (1996) terms it, a 'secure base' from which they are

better able to explore their environment, thus promoting learning and development. The relationships promote children's sense of security: security in who they are; security in their surroundings/environment; and security in knowing someone is there for them. Gonzalez-Mena, & Eyer (2004, p.103) say: "Continuity of care, small family/whānau groups, and a qualified caregiver are key components to the healthy growth of young children". The development of an infants'/toddlers' resilience, autonomy, attachment relationships, and security through relationships was supported by Atwool who says that these developments are "unlikely without a relationship with at least one adult in which they feel worthy and lovable" (Atwool, p. 23, 2002).

Recent brain research confirms that warm, positive interactions stabilize connections in the brain. Therefore high quality, responsive, reciprocal, respectful care must be provided in order for this critical process called attachment to thrive (Gonzalez-Mena, 2004). Smith, (2000, p. 13), argues that during the first few years of life children need a lot of "opportunities for joint attention if their language and thinking skills are to be developed and extended". She proposes that the development of these joint attention episodes come when there is a warm and close relationship between the adult and child. The learning ability of 'secure' children is optimised because these children are better able to exploit learning opportunities and explore confidently as any new or unfamiliar challenges do not overwhelm them (Rolfe, 2004). These ideas have underpinned the centre's programme development.

Relationships

In recent years socio-cultural theory has provided a valuable tool in rethinking pedagogical approaches to teaching and learning. Dahlberg, Moss and Pence (1999) discuss the importance of relationships in early childhood settings. They suggest that the concept of 'intensity of relationships' could be seen as a dense web or network of connecting people, environments and activities. These networks of relationships provide many opportunities for the young child to "enquire" within an environment of "collective adventure" (Dahlberg et al. 1999, p. 82). Cognition within this paradigm is not seen as an individual construction, but is viewed as being a distributed process, which occurs between and across people as they work together in culturally relevant activities. Thinking is viewed as being contextually specific, rather than being a universal skill; this thinking is guided by others, and mediated by a particular set of cultural tools and artefacts (Robbins, 2004).

The *ABL* programme has been based on the development of trusting relationships between the child, teacher and family/whānau. The programme has promoted the formation of

responsive, reciprocal, relationships that have provided a secure base for children's learning and development and aimed to provide infants and toddlers with a positive sense of self. It has recognised that families/whānau are the most important people in a child's life, and acknowledged that what a child learns in early relationships can form the foundations for subsequent relationships. Links with family/whānau, home culture, and home language have been a central focus of the programme. The teachers have seen the *ABL* programme as an ecological approach that views the child as part of a community with many outside influences that will have an effect on them.

Programmes that are vital for the development of infants and toddlers attachment, autonomy, security and resilience are not seen as having to provide a substitute for the home. Dahlberg, et al. (1999, p. 81,) say: "Not only is there no need to try in some way to provide a substitute home, but the benefit from attending an early childhood institution comes from it not being a home". The hope is that the two environments, home and centre, offer two different but complementary places for the child and family/whānau. Informed early childhood practitioners understand attachment processes, and recognise that the development of secure attachments between teacher and child will not undermine a child's secure attachment to their parents (Rolfe, 2002). Farquhar (2003) summarises research undertaken on the impact of relationships on outcomes for children:

Shonkoff and Phillips (2000) conclude from an extensive review of the evidence that nurturing relationships are essential for children's healthy development. They state that "stability and consistency in these relationships is important as are the adult's sensitivity, love, availability, and unflagging commitment to the child's well-being" ... They further explain that "relationships shape the development of self-awareness, social competence, conscience, emotional growth and emotion regulation, learning and cognitive growth, and a variety of other foundational developmental accomplishments. Relationships are also important because these attachments buffer young children against the development of serious behaviour problems. (Farquhar, 2003, p. 265).

Fleer & Linke, (1999, p. 3), argue that "caring for infants cannot be set down in schedules and lists. Adequate care for the very young is part of a critical living relationship, and only in this environment will children flourish". They go on to suggest that two main elements required when working with infants are "sensitive interactions and relationship building". An essential component for the development of relationships in early childhood education settings is seen as having available to each infant/toddler a special early childhood educator that they can relate to.

Resilience

The building of strong relationships promotes the development of autonomy, where a child is able to learn confidence in their own independent and autonomous thinking and actions. The development of resilience has been another area promoted with the use of an attachment/relationship based programme. When children feel good about themselves they are better able to adapt effectively in the face of adversity. This resilience can be seen as a mechanism or process that helps the child be resistant to stress. (Rolfe, 2002, & 2004; Griffin, 1997, Raikes, 1996).

ABL: Supporting structures

The development of meaningful and successful relationships takes time and has required both the teachers and the management of Massey Child Care Centre to recognise the importance of teacher availability and consistency. Attachment grows over time. Individuals get to know each other and learn each others' special ways of communicating; therefore time has been made available for the development of attachment relationships. To promote these relationships between teacher and child has required the presence of systems, policies and practices that will enable the desired relationships to develop. Lally (1995) suggests that there need to be the 'right' type of policies in place to support teachers of infants and toddlers developing appropriate practices. Lally also suggests the implementation of five key policies to support and influence the child's identity formation. The policies are: primary caregiver assignments and continuity of care; group size; responsive curricula; cultural continuity; and use of a child's home language.

Systems and practices that support the positive engagement between children and adults have been seen vital as often the duties and rosters in place in busy centres can constrain and restrict staff, which in turn impacts on the development of infants/toddlers' and adults' meaningful interactions (Rockel, 2003).

Key Teacher System

As described previously, the Hoiho section has operated a key teacher system which has allocated specific children to specific teachers since 1998. This allocation may be by parent/whānau request, i.e. previous siblings in the teachers group where relationships have already been established, and the 'matching' of family/whānau and teacher. The placement of children may be constrained by the numbers of children already in a teacher's group. The

teachers working within the *ABL* programme have worked very closely with family/whānau developing shared understandings about what is best for the individual child, family/whānau and teacher in this environment. Key teachers have taken responsibility for the key tasks for a child and their family/whānau. Key teachers change, feed and sleep the children in their group (where possible) always remembering that these routines have been seen as vital in the child's developing sense of self and feelings of security. This key teacher system has not been totally exclusive care, although the key teacher has had the most in-depth knowledge of the child and family/whānau. However, this knowledge was shared with the whole group of teachers but more specifically with the 'buddy' teacher. The presence of a key teacher system has been intended to assist in providing the child and family/whānau with a secure base, consistency and continuity in practices.

Self-sustaining teams

In order for the key teacher system to operate effectively, a self-sustaining team system has been developed that is a vital component in the *ABL* programme for the Hoiho team. The buddy system formed the basis of the arrangement where pairs of teachers within the whole team structure worked collaboratively for the benefit of the child, family/whānau and the team of teachers. Constant negotiation has occurred between team members, and in particular the buddy pairs, to ensure the meeting of each child's needs according to their own rhythms. At times, such as during transition periods from home to centre, a particular child's need has been found to be greater than others' and all teachers have negotiated the programme in response. The day-to-day management of the *ABL* programme relies on the collaborative structure and distributed leadership culture of the community of practice.

Conclusion

In the seven years before the Hoiho Section began as a Centre of Innovation, the *ABL* programme had been developed and strengthened by the philosophy of a learning community within which all participants in the environment worked collaboratively, contributing individual knowledge, skills, ideas and expertise. Within this community the sharing of power between the teacher and the learners (including infants and toddlers) was seen as promoting the potentiating environment in which infants and toddlers learned and grew, becoming capable, confident, investigative explorers. The programme was based on respect for the infant or toddler as a competent capable learner, and saw the participants: infants, toddlers, teachers, families/whānau, and the wider community, as partners who seeded the

environment with ideas, thoughts and theories, co-constructing knowledge as they engaged in shared learning endeavours.

When Massey Child Care centre applied to join the Centre of Innovation research, the main aim was to refine and develop the existing innovative programme, and to investigate in more detail the ways in which the programme supported infants' and toddlers' learning.

Chapter Two

Methodology

Introduction

The overall methodology of this research was delineated by Massey Child Care Centre's contract with the Ministry of Education. The terms of this three year contract included:

- The use of processes that are systematic and rigorous to find answers to the research question "In what ways does educational leadership, within a community of practice, impact on infants' and toddlers' disposition to enquire?
- The dissemination of information about their innovative community of practice leadership approach to foster professional development that enhances pedagogy and children's learning, and in relation to the attachment based learning programme for infants and toddlers.
- A commitment to publishing research-based information about the effects of community of practice leadership and of an attachment-based learning programme for infants and toddlers.

The action research design

Reason and Bradbury (2001), say that the question "what is action research?" has no easy answer; their working definition is:

Action research is a participatory, democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes, grounded in a participatory worldview which we believe is emerging at this historic moment. It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities (p.1)

All good teachers engage in reflection through a variety of processes and records of assessment and evaluation; how is action research different from this? Holly, Arhar and Kasten (2005) offer varying levels of query within action research as a continuum:

Curiosity	Problem	Inquiry	Information-	Research in	Action	Completion	ı
	solving		search	practice	research	of AR cycle	1

Figure 2.1: Action research continuum. Modified from Holly, Arhar & Kasten (2005, p.72).

Reflection is involved at each point on the above continuum, in increasing degrees of intensity from left to right. Action research is characterised by closely and iteratively (cyclically and repeatedly) linking reflection and action, especially in a collaborative community of researchers (Altrichter, 1999). Data are confronted from different perspectives, incorporating holistic and inclusive reflection in the development of educational values.

Action research is an approach to improving education by making a change in practice and learning from the consequences of the change: it is participatory, as people work together toward the improvement of their own practices; it develops through the self-reflective spiral, a spiral of planning, acting (implementing plans), systematically observing, reflecting and then continuing this cycle; it is collaborative, involving those responsible for the programme in improving it; it establishes self-critical communities of people participating and collaborating in all phases of the research cycle and who are committed to enlightening themselves; it is a systematic learning process, in which people act deliberately, though remaining open to surprises and responsive to opportunities (Kemmis & McTaggart, 1988; Lomax, 1995). As expressed by Elliot (1991): "The fundamental aim of action research is to improve practice rather than to produce knowledge. The production and utilisation of knowledge is subordinate to and conditioned by this fundamental aim" (p. 49).

While many of these descriptions of action research could be equally applied to both reflection and to whole-centre professional development, Zuber-Skerrit (1993) makes the distinction for action research as being "more deliberate, systematic and rigorous, and it is always made public" (p. 46). Henry and McTaggart's (1996) criteria for claiming action research as belonging in the category of research is also that published accounts are an outcome of the research. Such a deliberate intention to publish leads to a more careful approach to the data generation and documentation of processes and reflection for all participants. The intention that outcomes of their action research will be disseminated widely within the New Zealand (and beyond) early childhood community is significant in the Ministry of Education's selection of their Centres of Innovation.

Links between co-constructed understanding and action research

The term "co-constructing understandings" is a sociocultural one. The same principles of supporting children's learning addressed in the sociocultural model are equally applicable to the processes of action research with adults. The co-construction of action research, involving a team of teachers working with their chosen research associates encourages what Cole and Engestrom (1993) describe as the effective use of "distributed" cognition. From a co-constructive perspective, cognitive development is viewed as a function of the group or institution – "distributed" – rather than of an individual or collection of individuals. A researcher working with a teaching team will fulfil the role of an "expert" in the research process and/or in the specific area of the teachers' research. The teachers are the "experts" in their own centres: they know their culture, their routines and processes, each other, the children and their whānau and how their innovation works. Together the teachers and the research associates who are acting as facilitators, co-construct their research, each extending the others in their zones of proximal development, each going further than they could have gone alone.

In co-constructing meaning, issues of power and agency are important, as roles are seen as mutual and reciprocal in initiating and managing the shared interactions. Thus, co-construction of understanding is an interaction strategy that emphasises the learner as a powerful player in his/her own learning, "rich in potential, strong, powerful, competent and linked to other learners" Malaguzzi (1993, p. 10). It is developed over a period of time as a group becomes a community of learners (Konzal, 2001). Individual and social learning interacting over time strengthen one another in a "reciprocal spiral relationship" (Salomon & Perkins (1998, p. 18). This idea of spiral reciprocities between the different planes of learning is especially supportive of the concept of co-construction of understandings across space and time. Collaboration occurs, not only in face to face relationships, but also "amongst people of different eras and locations" (Rogoff, 1998, p. 726) through engagement with printed articles and research reports.

Further similarities are found between co-constructive principles and Borgia and Schuler's (1996) description of action research as being composed of five C's: commitment, collaboration, concern, consideration, critical assessment of one's own behaviour, and change. Both sociocultural practices and action research involve collaborative relationships,

self and collective reflection, and inquiry and critique of current activities. The three broad areas common to both action research and to an early childhood programme founded on sociocultural principles can thus be summarised as: collaborative relationships; commitment to critique and change; and documentation and dissemination.

In Centre of Innovation action research the research associates will always be 'outsiders' to the close-knit centre teams with which they are co-constructing research. Poskitt (1994) and Zeni (2001) discuss the insider-outsider relationship as one of the contradictions in action research. Teachers are generally more concerned with the daily practicalities of their children's lives and of their own interactions with them, with what Graue and Walsh (1998) call the "little-t theories". University researchers have more access to and work at the level of the "big-t theories" and the application of these to centre practice. The Ministry of Education has encouraged Centre of Innovation teaching teams and their research associates to develop a strong ethos as a research team, each member making valued contributions from their own area of expertise.

The use of case studies

The case study method of research is particularly applicable to qualitative action research. Kemmis and McTaggart (1988) and Elliot (1982) all suggest the report of the action research project should be a "case study" of the process of the work, basically in narrative form. Case studies are "typically eclectic and combine some of the elements of ethnographic research, programme evaluation and descriptive methods" (Anderson, 1990, p. 112).

The selection of the particular case is an important issue. Selection on the grounds of representation of a larger group is hard to defend, given the complexity of each case and the lack of generalisability across cases. The first criterion for case selection is to maximise what can be learnt, deciding which cases will lead to understandings, to assertions, or even perhaps to modifying generalisations. A case need not be chosen as a typical one. Even the choice of multiple cases from a large selection is unlikely to include sufficient multiple variables to be considered suitably representative. The strength of a case study is the contribution of many "voices" as sources of evidence (Schratz, 1993, p. 183; Winter, 1989; Yin, 1993).

Massey Child Care Centre action research

The research questions

The planes of activity which were used to frame the research were introduced at the beginning of this report. The implications of this framework will be elaborated on in subsequent chapters. The initial research questions, framed in the three planes were as follows:

The research question:

In what ways does educational leadership, within a community of practice, impact on infants and toddlers disposition to enquire?

Supporting questions in the community/institutional plane:

- In what ways does leadership impact on a community of practice?
- In what ways do self-sustaining teams impact on infants' and toddlers' disposition to enquire?

Supporting questions in the interpersonal plane:

- In what ways does the centre's Attachment Based Learning programme impact on infants' and toddlers' disposition to enquire?
- In what ways does the centre's Attachment Based Learning programme impact on the transition process for infants and toddlers?
- How is the programme fostering children's dispositions to enquire negotiated for families from different cultures and/or with different learning needs within the infant and toddler section?

Supporting question in the personal plane:

- How are the teachers' teaching and learning processes influenced by the implementation of the Community of Practice?
- What are the characteristics or elements of the teaching/learning relationship that influence/contribute to children developing a disposition to enquire in the infant and toddler section?

The participants

By its very nature action research is owned by the participants in the research. All teachers from the Hoiho section were involved in the research, taking part in the critical reflection that is what MacNaughton (2001) describes as the "motor that drives the research process", (p.212) and the documentation and planning decisions or "the fuel needed for the motor to work" (p.212). As part of the community of practice, the research associates and the director of the centre also took part in critical reflection and planning. The children and families of the Hoiho section were also integral to the investigation. All families and whanau were invited to regular information-sharing about the research and six were more intensely involved as case study families. Teachers from the Kiwi Section were involved in relation to the cross cutting theme of transition.

The research team decided that for the first research cycle, during the latter part of 2005, each 'buddy partnership' would select one focus child, within the criteria accepted by the Massey University Human Ethics Committee's approval of the research proposal (MUHEC #05/39). In 2006, another child was selected. The reasons for this were pragmatic. It was felt that centre organisation could not cope with having six focus children at once as the teacher time away from the group would be such that the principles of the *ABL* programme and thus the security of the other children in the group would be compromised.

The proposed criteria for selection were:

- 2 children aged 1.5/1.6 (transition occurs at about age 2)
- 2 children (diverse culture/ability)
- 2 further infants
- A mix of boys and girls.

The research methodology thus included case studies of six children and their families: three in the first cycle and three in the second cycle. This allowed each of the six teachers in the Hoiho Section to examine the complexities of the teaching and learning for one child for whom which she was the key teacher and thus had major responsibility; and to show how the two members of the 'buddy groups' worked together to support the children's learning.

Parents had been consulted prior to the centre's application to the Ministry of Education to become a Centre of Innovation. A meeting with the Hoiho parents was convened prior to the selection of the first three case study children, in order to ensure full understanding, to allay

minor concerns and to negotiate any required changes. Examples in the ethics section of this chapter describe and address these concerns.

Data generation and analysis

Two cycles of action research, each consisting of multiple mini-cycles, were completed in the first two years, by the end of 2006. This allowed time in the third year (2007) to focus on completion of data generation, final documentation of all findings, analysis of results and preparation and dissemination of resources for the early childhood sector.

Multiple sources of data

At the commencement of the research considerable data were already being recorded by the teachers in relation to programme planning and implementation for individual children. Data were thus readily available and were utilised as comparisons with data generated during the action research cycles.

Triangulation of subsequent data was achieved through the following multiple sources:

- 1. Observations and analysis: staff/ children interactions, environment.
 - video and audio recording of critical incidents during children's interaction with their peers and with teachers and parents during their normal learning programme in Hoiho;
 - video and audio recording of interactions between teachers and children;
 - audio recording of professional dialogue in staff meetings and focus group meetings;
 - field notes from informal discussions between parents/whanau and teachers and professional dialogue between teachers;
 - meetings with the research associates where the data was discussed and the analysis reviewed. A 'what next?' review was also carried out at this time.

2. Document analysis:

- staff/children profiles,
- programme planning,
- parent notebooks,
- meeting minutes: section meeting; management meetings where the critical reflection and planning that supports the programme and professional development is recorded.

- self review: teacher practice, organisational processes and procedures; and
- policies.

3. Research diaries/journals

 All staff have kept reflective journals. They were particularly asked to document reflections on the influences of leadership on their practice as they work with children; on the development of children's enquiry; and on the effects families/whanau and other teachers were perceived to have on the development of the disposition to enquire.

Three year plan and cycles

Year One (2005)

The children were chosen and data generation commenced in July 2005. The teachers held fortnightly meetings with the research associates in order to review the videos and the subsequent reflection and analysis. Monthly staff meetings were held, where the material was again reviewed. At these meetings, models for enquiry, self-sustaining teams and distributed leadership were developed and redeveloped. The research associates held workshops for the Hoiho staff on the following topics: research methods; infants' and toddlers' disposition to inquire; teachers' beliefs; leadership. The Advisory Committee convened prior to each milestone report deadline.

Year Two (2006)

Cycle Two data generation commenced in May, with teachers continuing to generate some data for the Cycle One children, in a more focused manner. In addition data were generated for two children and their families who were involved in the transition from Hoiho to Kiwi, one of the over twos sections (one on May and the other in July). A parent-staff evening sharing findings from Cycle One with the whole section was a significant event.

Three more children and families were chosen for Cycle Two. These were children whose key teacher was the other teacher in the buddy group. While an attempt was made to choose children of different ethnicities, the families did not see this as a factor in their children's care and education so this aspect of enquiry was not used in the final analysis. A further workshop on distributed leadership (for the centre management team) was held, and staff meetings and parent meetings continued as in year one. Again, the Advisory Committee convened prior to each milestone report deadline.

Year Three (2007)

During this final year the major foci were: ongoing analysis; report writing; dissemination of findings; and consideration of resource production.

The focus for the research, implicit in the research questions, was to document what was happening for teachers alongside what was happening for children. This documentation was used for further planning within an action research cycle. Each cycle of data generation raised questions and became starting points for further action and study.

True to the iterative nature of action research, several cycles of data generation occurred for each of these three case study children. The same processes occurred in the second action research round, during 2006, where the remaining three key teachers selected a case study child from their own group. When a key teacher had major responsibility for generating data with her case study child, her buddy teacher was not only available in full support of this but she was also party to all the research discussions and therefore was often the best person to complete the videoing. In further support of this data generation Hoiho employed an extra teacher throughout the data generation and analysis stages of the research, to ensure that all children were well catered for at all times.

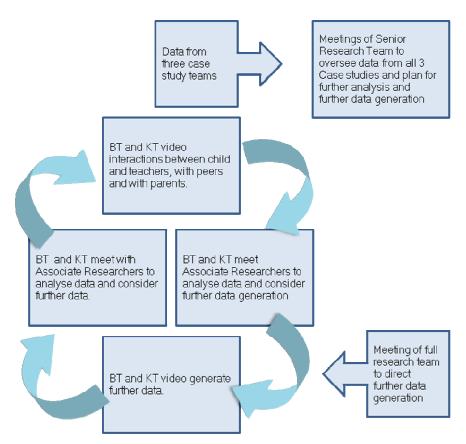


Figure 2.2. The iterative cycles of action research for each case study child and for the research team:

Key: BT = Buddy Teacher KT = Key Teacher (see Chapter One for an explanation of these terms in Hoiho)

The role of ethics in clarifying and guiding the research

The research was guided by the Massey University Code of Ethical Conduct for Teaching and Research involving Human Subjects (MUHEC #05/39). Consideration of ethical issues in relation to the COI research was primarily aimed at protecting the participants, the researchers, the Centre and the University by applying the principles of the code. Formal purposes of gaining ethical approval for conducting the COI research included the following considerations:

- To ensure the proposed activities would achieve useful and relevant new knowledge about teaching and learning, and that there were adequate human and material resources to complete them.
- 2. The minimising of psychological harm by analysing carefully any specific risks for an activity or procedure; considering alternative procedures; monitoring procedures during and after the activities.

- 3. Informed consent was obtained from all participants and those with vested interests in the centre and the research. Because obtaining informed consent and voluntary participation from infants and toddlers was problematical, it was necessary to gain the consent from the parents or guardians of all the children in the Hoiho Section and other sections as applicable. Separate consents for each stage of the research project were obtained.
- 4. To protect the privacy of individuals, the community and the Centre, clear procedures for the handling and storage of confidential information were formulated, particularly for reviewing audio and video tapes and/or transcripts. Ownership and disposal of the data were addressed.
- 5. Consideration was given to the uses to which people may use the results; this applied especially to the use of images generated. The parents were specifically asked whether they would give permission for images of their children to be posted in research papers on the Ministry of Education website. They all refused to give this permission.
- 6. Protection of the children's normal programme of learning during times when data was being generated. Development in recording tools (digital camera/video) and the children's familiarity with the use of digital cameras that are used daily in the centre, aided in making observations unobtrusive and a familiar occurrence.

On a more informal level, the research team's attention to ethics provided further advantages:

- During the initial phases of conceptualising the research the items on MUHEC's
 ethics proposal provided cues for aspects of the research that may otherwise have
 been overlooked by the team. Thus the quality of the application to become COI
 researchers was enhanced.
- 2. The necessity of raising ethical issues with the teacher-researchers and, in separate meetings with the Hoiho parents, invited in-depth discussion and the opportunity to not only allay concerns but also to revisit the proposal, to clarify and modify as appropriate. Again, attention to ethics enhanced the quality of the research.

Provisional approval of the application to MUHEC was provided on 10th May 2005. Issues were raised and addressed as follows:

Issue

The possibility of coercion to participate where an individual staff member may not choose to participate, perhaps due to changed circumstances in availability.

The possible influence in routine interactions by the presence of a researcher with a video or camcorder.

The rights and confidentialities of the research participants, particularly in relation to the fact that as a COI staff will be identifiable.

Clarification regarding sharing findings via the customary methods of notice boards and daily discussions with families/whanau.

Minor changes were required to be made to information sheets and consent forms in line with MUHEC concerns.

Response

Current staff members were all involved in the centre's application to become a COI and all were keen to participate. Ongoing transparency and discussion of any changed circumstances, especially staff replacement, will address future concerns.

The committee was reminded that the researchers are the teachers and that the research associates will not be likely to be present during session times. The teachers will complete data generation in a manner similar to their current observational practices.

Pseudonyms will be used for children's names. Teachers will want to have their names included in publications in which they were involved in writing. No incident with potentially negative connotations will be reported. Participants will be invited to view every presentation that includes their image or contribution.

The merging of research data and normal observation and planning documentation is a fact of this research design. The teaching team will continue with its practices of displaying planning data.

Further sets of consent forms were written to remove any ambiguity.

Table 2.1 Concerns of MUHEC and the COI team's responses

Final ethics approval was given on 28th June 2005. This was several months from the time of notification that Massey Child Care Centre had been selected as a Centre of Innovation. While this lapse in time allowed the senior research team to become very clear about proposed actions, it also allowed time for some of the potential teacher-researchers to become very nervous about expectations about their time and expertise. This concern will be explored in the final chapter of the report.

Conclusion

The model of action research employed in Centres of Innovation is different from traditional work of researchers such as Kemmis and McTaggart (1988) and Elliott (1991) in that it is not problem-based. In contrast, centres are challenged to document their innovation and in so doing to provide evidence that their claim to being a Centre of Innovation is indeed justified.

Clearer articulation, documentation and reflection on practice inevitably contribute to debates and negotiations, so that in providing their evidence for their quality outcomes for children, a Centre of Innovation teaching team is likely to improve these.

Action research is an appropriate choice of both paradigm and methodology for researchers who hold a sociocultural theoretical perspective. Further, the very strong links between sociocultural theory and action research enables the reinforcement of similar interaction skills amongst the research team as are advocated in the early childhood teachers' work with children. According to David (1996), action research is the ideal process through which teachers are able to come to see themselves as researchers as they develop their skills of reflection on their programmes and practices. It is of course the intention of the Ministry of Education to grow this research expertise in early childhood teachers through the processes of the Centre of Innovation projects.

The development of collaborative relationships within the research team meant that the expertise of each and every member was valued, ensuring that the distributed understandings were brought to the data analysis table. Self and collective enquiry has been fostered through the maintenance of transparent processes that underpinned the team's research agreement and are maintained through collaboration and negotiation.

Documentation of their current work with children and with each other is a way of making this work available for reflection and critique. The research team saw itself as working towards building theory about enquiry for under-two-year-olds. The Community of Practice, including its structures for effecting distributed leadership and its *ABL* programme are central to such a theory. Co-constructed action research in this Centre of Innovation was seen as an appropriate methodology for researching and documenting practice. The empowerment of the teachers to conduct and write about their research was seen as likely to extend their work beyond their current context and beyond the three years of the current Centre of Innovation contract.

Chapter Three

Distributed Leadership within a Community of Practice

Introduction

The principal question for this action research was:

In what ways does educational leadership, within a community of practice, impact on infants' and toddlers' disposition to enquire?

This chapter investigates the ways in which the community of practice and the distributed leadership system as described in Chapter One provide a framework to assist the teachers' work in supporting children's enquiry. It briefly reviews the current literature on leadership for change and improvement, with special emphasis on capacity building. It then explores the ideas about community of practice and distributed leadership that have underpinned the organisation of the centre and goes on to discuss some of the findings about the teachers' growing understanding of distributed leadership and teachers' work during the action research project, and the effects of this on their leadership capacity and the ways in which they understand their work with children.

Literature review

Leadership for change and improvement

In the present climate of constant change for institutional effectiveness and improvement, culture and leadership have been the focus for many studies of how educational settings improve, and of how pedagogical outcomes for children are enhanced. Most of this work has been done in relation to schools.

While there is little empirical evidence that school culture and leadership enhance children's learning (Scrivens, 2004) there is a large body of literature linking school culture to improved outcomes for teachers, to better teaching and by implication to better outcomes for children. However, there is little evidence that links leadership directly to improved outcomes for children. The Ministry of Education's *Best Evidence Synthesis on School Leadership* has identified twenty-five studies that make such links and from these studies they identify five dimensions that have an impact on students. These dimensions are:

- Establishing goals and expectations;
- Strategic resourcing;
- Planning, coordinating and evaluating teaching;
- Promoting and participating in teacher development; and
- Ensuring an orderly and supportive environment (Tringham, 2007).

Essentially these dimensions are intended to improve the teaching and learning culture of the school.

Earlier studies have identified cultural norms that influence school improvement. Stoll and Fink (1996, quoted in Stoll, 1999, p. 37) identified shared goals, responsibility for success, collegiality, continuous improvement, lifelong learning, risk taking, support, mutual respect, openness, and celebration and humour. In relation to collegiality, "joint work" is regarded as most likely to lead to improvement. Stoll sees joint work as including "team teaching, mentoring, action research, peer coaching, planning and mutual observation and feedback" (Stoll. 1999, p. 37).

Also writing about schools in the UK, Hopkins and Jackson say:

[I]t is the quality of the school as a social system that is the key contributor to the effectiveness of the school and ... this can be modified and enhanced by the actions and aspirations of its members (Hopkins & Jackson, 2003, p. 84, my italics).

While Hopkins and Jackson see organisational culture and climate as important features of school quality, they see them as static. Capacity and capacity-building are regarded by them as more useful constructs for investigating school development and improvement.

Hopkins and Jackson identify two key components of capacity:

The two key components of such a model will be *the professional learning community* (the people, interpersonal and organizational arrangements working in developmental or learning synergy) and the idea of *leadership capacity* as the route to generating the moral purpose, social cohesion and trust to make this happen and to create impetus and alignment (Hopkins & Jackson, 2003, p. 89).

In order to build capacity, attention needs to be paid to three components. These are:

- building organisational capacity creating a flexible system that is open to new ideas and invests in professional learning and relationship building;
- building interpersonal capacity working together on shared purposes and taking collective responsibility for each others' learning and well-being; and
- building personal capacity not only knowledge and skills, but also the active and reflective construction of knowledge.

(Adapted from Mitchell & Sankey, 2000, in Hopkins & Jackson, 2003, p. 91).

For early childhood practitioners, these components mirror Barbara Rogoff's sociocultural analytical lenses. Rogoff sees learning as a process of people's changing participation in the activities of their community (Rogoff, 2003). The activities are viewed through three sociocultural lenses: the cultural-institutional, the interpersonal and the intrapersonal. Learning is transformation by participation.

Leadership within a community of practice

A useful definition of communities of practice for the purposes of educational leadership and management comes from Tom Sergiovanni. In this definition, the emphasis is on knowledge and shared practice. He says:

In communities of practice groups of teachers come to see themselves as being involved in a shared practice of teaching that transcends their own individual practices. Thus, they have an important stake not only in their own learning but in the learning of their colleagues... Teachers function as communities of practice when they share a common body of knowledge, when they work together to expand that knowledge and use it more effectively. Learning is the key (Sergiovanni, 2001, p. 108-9).

This definition fits well with the ideas about joint work and capacity building discussed in the previous paragraphs. It emphasizes shared practice, shared knowledge and an element of transformation when teachers work together "to expand their knowledge".

The United Kingdom researchers mentioned above see a community of teachers as a "professional learning community". This is similar to, though more specific than, the concept of "community of practice" as used by Sergiovanni and by Wenger (1998) to describe the ways in which communities form mutually agreed systems and processes. For Wenger, the three dimensions of engagement are: mutual engagement; a joint enterprise; and a shared repertoire, as discussed in Chapter One. Again, there are three components of increasing complexity built into the model.

Leadership within a community of practice or professional learning community model implies a system of distributed or shared leadership, which emphasizes collective responsibility. Alma Harris says:

[S]tudies point towards an emerging model of leadership that is less concerned with individual capabilities, skills and talents and more preoccupied with creating collective responsibility for leadership action and activity. The focus is less upon the characteristics of 'the leader' and more upon creating shared contexts for learning and developing leadership capacity. (Harris, 2004, p. 19)

This happens when group members pool their expertise, both formally and informally within a framework of social cohesion and trust. Linda Lambert (2003) sees leadership as a collective endeavour with a redistribution of power. This emphasis on collective, collaborative action changes the balance of power, so that leadership becomes an agency that can be shared. This can best be achieved within a community of practice framework (Gronn, 2003). Hopkins and Jackson state that the role of the designated leader is to "harness, focus, liberate, empower and align its members" (p.97). They contend that for capacity-building, the critical and the most variable element is leadership.

Within this context, the role of the formal or designated leader is not lost. Several different styles of formal leadership may underpin the development of distributed leadership, including top-down initiatives from strong leaders, provided that formal leaders "orchestrate and nurture the space for distributed leadership to occur and create the 'shelter conditions' for the leadership of collaborative learning" (Harris, 2004, p. 15). Formal leaders, whether there is one or more than one, still need to lead the structural, political, pedagogical and relationships-oriented aspects of life in educational settings. Essentially, they build organizational capacity and culture so that teacher leaders are able to take action.

Leadership and communities of practice in early childhood services

Within early childhood, leadership research and theory does not intersect well with the discourses in the school sector (Sigley, 2006). There have been few studies of pedagogical leadership in New Zealand early childhood settings, and none on the effects of change that concentrate on leadership and organisational culture. However there is some research on the effect of leadership on quality programmes. There is evidence from studies in the UK that there is a significant relationship between the centre manager's pedagogical qualifications and the quality of the early childhood environment (Sylva et al, 2003). This is because managers and supervisors have an influence on teaching and learning, and need to be able to carry out

the tasks of instructional (pedagogical) leadership, which require considerable professional knowledge. This includes supporting teachers, through supervising, monitoring and supporting their professional work. US studies indicate that intensive training and support of the director/supervisor has a positive effect on the whole centre, improving organisational climate and teaching and learning (Jorde Bloom & Bella, 2005).

Research studies on early childhood leadership focus principally on the ideas that leaders have about leadership and on the roles and responsibilities of leaders. Most of these studies have found that childcare supervisors see their role in terms of centre relationships rather than in terms of pedagogical leadership (Scrivens, 2004). Some studies have indicated that supervisors and head teachers would prefer to share their role: shared leadership has been a focus of discussion in childcare literature ever since Kagan (1994) wrote the initial article questioning whether a sole leader was the best model for leadership in childcare services, and offering alternative models that featured shared leadership. Sigley, in her Auckland study of early childhood leaders' ideas about leadership found that they considered that while they had an holistic view of leadership, interpersonal relationships within their centres were the most important aspect of their leadership. There was an element of shared leadership: the leaders saw curriculum leadership as a commitment to "sharing curriculum decision making with all staff in the setting" (Sigley, 2006, p. 100).

Another perspective on leadership in early childhood services is given by Waniganayake who uses the term "distributive leadership" to put forward the idea that leadership can be distributed rather than shared among centre personnel. In this model, shared, explicit knowledge is the basis for distributing leadership. Waniganayake says:

Knowledge contains both pedagogical and practical understandings necessary to sustain and promote learning within the organization from a long-term perspective. Leadership is acquired and nurtured by sharing knowledge in explicit ways (Ebbeck & Waniganayake, 2003, p. 34).

This too implies a participatory approach to leadership, acknowledging teachers' and managers' shared knowledge and understanding. However, the model, developed from Gronn for Australian early childhood services, divides leadership between the community, managers, administrators and the lead teacher only. Teachers are not part of the model.

The idea of a community of practice or community of learners is current in early childhood discourse. These terms are often used interchangeably (see Podmore, 2003). Much of its use is based on the ideas of Wenger (1998) as discussed in Chapter One. In New Zealand early childhood services, the ideas of a community of practice and communities of learners are

attractive. They link well to the socio-cultural theory and research that underpin the early childhood curriculum *Te Whāriki* (1996) and to newer theoretical ideas such as those of Rogoff (1998) who emphasises learning through participation. On a personal level, teachers value the ideas of collegiality and collaboration. They work together with a group of children in a deprivatised environment (Anning & Edwards, 1999) and need to have mutually agreed, shared understandings about how and what they will teach, how they will relate to parents and how they will organize their day. The COI centres in the first round were characterised by their emphasis on a "community of learners" approach to centre activity, principally by including teachers, parents and local communities in their operations (Podmore, 2003). Researching the ideas about leadership in three of the COI, Thornton defined it as leadership "working collaboratively in a learning community towards a shared vision" (Thornton, 2006, p. 162).

Research findings

Chapter One outlined the Centre's ideas about communities of learning and communities of practice before the research began in 2005. By the end of 2006, as a result of a series of workshops which were part of the action research cycles, the Hoiho Section had elaborated on their ideas about community of practice. They saw it as:

- Fostering emergent leadership and taking on leadership roles;
- Establishing support networks and collaborative relationships; and
- Sharing expertise, questioning and challenging, engaging in critical reflection.

The effects of these ideas on teachers' thinking and practice will be analysed, using a capacity-building framework.

Building organizational capacity: Fostering emergent leadership and taking on leadership roles

No matter how much formal or designated leaders may want to distribute their role, they have structural responsibilities within the organization and to the Ministry of Education that they must fulfil. Formal leaders, whether there is one or more than one, still need to lead the structural, political, pedagogical and relationships-oriented aspects of centre life. In the Massey Child Care Centre, both the community of practice/community of learners discussions (which have taken place over a number of years) and the proposal and subsequent

development of the COI action research were initiated and led by the director and the managers (see Chapter One). In relation to her role in fostering this development, Faith, the centre director, wrote:

Fostering and developing a culture within the centre where everyone shares, and is working towards, the same goals and aspirations, is central for me. It is not enough that I have a vision ... everybody else needs to share it and take responsibility for it as well. To enable this to happen, structures and systems need to be in place that provide a strong foundation for all staff to work collaboratively on shared enterprises whether it is for curriculum improvement, health and safety or for celebrating a success ... I see the formal leadership of the centre as a joint enterprise between myself and the managers. It is the knowledge of the group (both that already gained and the active pursuit of new knowledge); the collective responsibility of the team to work together to broaden each other's knowledge so that it can be used in more effective ways; and the respect and trust between the members that enables new ideas and systems to be discussed, tried and evaluated. The 'risk' in risk taking is tempered through research and dialogue.

In this reflection, group knowledge, collective responsibility, respect and trust, and the importance of research and dialogue are highlighted for the both the management group and the teaching team. The organisational culture is consistent throughout.

The trusting relationships developed within the section teaching team are a direct result of the director and managers trying to develop "safe places" for the staff to work and reflect. Members are able to pool their expertise, both formally and informally, within a framework of purposefully developed social cohesion and trust.

Raewyne, the section manager, identified the importance of trust and linked it to deliberately fostered openness and high expectations:

I believe that all the teachers in the environment own what is happening and need to take responsibility for what goes on in the day-to-day running of the section.... But this doesn't happen without developing a sense of trust. The teachers are *all* fully informed, I do not believe in the 'need to know' approach ... Having trust in the teaching team means that they feel part of what is going on, they feel respected and that they are valued as vital links in the team chain. I believe that we as a team have developed a very open, safe and yet challenging environment to work in. I think too that it is about expectations ... [I]f you believe in the teachers, trust that they are working to their full potential, trust that they are passionate and dedicated, then chances are they will be... I do believe that as the manager I hold the ability to make or break the team's morale and development just by what my expectations are.

And Olivia, the assistant manager, wrote in her journal:

It is my role as assistant manager to lead and support the other teachers. I believe I do this in a professional manner, respecting all the teachers for what they bring to the team. [They] have a diverse range of expertise and I believe that everyone within the team respects this and we tend to use each other's expertise. I believe that the environment is safe and all the staff feel this.

Modelling and professional dialogue are important components of becoming a skilled teacher and a leader. Raewyne saw her role as a provocateur, "provoking thought and reflection: not demanding it but developing an environment where the teachers come to demand it from themselves". In describing how she went about this, she explained:

I am able to work alongside the teachers, so I am able to observe them and participate with them in their practice. This provides me with the opportunities to ask questions, make suggestions and/or challenge their practices. I ensure that I manage my time so as to be able to touch base with the teachers on a regular basis. I like to meet with the teachers on an informal basis such as during their non-contact time or during "down time" in the centre. I take the time to get to know the teachers both professionally and personally. I try very hard not to be judgmental and be as open to new ways of thinking and doing as I possibly can be. I think that this approach goes towards establishing a safe place for teachers to be. Just as we support the infants and toddlers to feel safe and secure so too do we support the teachers... I am very aware of the individual teacher's professional development and professional dialogue or contact information to support the teachers in their professional development.

The teachers did not see this as a "top down" model of learning: it was seen as collaborative. But they acknowledged that they learnt from the managers. At the end of the action research Libby wrote:

I see both Raewyne and Olivia as their titles, Manager and Assistant Manager and I have respect for what they do and say, but I also believe that we are all equals and there is no undermining whatsoever. We all have the right to have professional dialogue and pick each other up on our practices, whether it is in a positive or not so positive manner. In the early stages of my employment I had informal and formal discussions with Raewyne and Olivia just talking about how I was going... The teacher I am today I feel reflects on the role modelling I have seen from Raewyne and Olivia.

Heather linked this to their philosophy about children:

I like to think of our director and management team as the enginehouse of our educational learning community... Their underlying belief in and respect for the capable and strong child, within the context of family and community is evident in every thread of work and thought.

One consistent idea in all of the final reflections was the responsibility to be a leader within this system: emergent leadership has been fostered. This was mirrored in some of the final reflections. Caryn wrote:

Whenever a new staff member starts here you see the cycle of leadership change. Those team members who have been here longer step up, lead and guide the new person, the environment and give explanations and understandings about how and why things are done the way they are. Over time that new teachers' individual strengths and interests emerge and they are fostered and nourished to exist within centre life.

Libby wrote:

Leadership amongst us all is about being able to say "I really liked the way you set up that experience and didn't it go so well for the children"; being positive towards one another; being able to ask for another's opinion about something, because you know they will have some good ideas; being able to speak up in a staff meeting and say what you think about something; having an open mind about what your team mates are saying; taking the positives from the negatives.

Distributed leadership in this context does not mean that everyone has the same responsibilities. Summarising what had happened over the time of the COI in relation to leadership, Caryn wrote:

We stand both as strong individuals and as a team. We lead our own philosophy and practice every day we come to work. I feel that although we work within a distributed leadership style there are still some who step up onto a hierarchy every now and again. It would be naïve to think that we are all equals in the leadership stakes because although we all have the same amount of input into some areas there have to be people who the buck stops with... When you chose to enter into a career in early childhood education you start your journey as a leader. As I see it, you have to be highly motivated and self driven to move in this profession, opportunities don't necessarily come to you... I think the success of our team is the willingness and drive to externalise [our leadership skills] and grow those skills. Everything though takes time and I would be wary of someone who jumped in boots and all without building those fundamental respectful, reciprocal, responsive relationships.

Building interpersonal capacity: Establishing support networks and collaborative relationships

As outlined in Chapter Two, the teachers decided that in order to investigate in more detail how the buddy system worked, they would each write a diary of one day in their work with the children, with special emphasis on the interactions with their other team member ("buddy"). The diaries showed that close, collaborative relationships between the teachers led to more intensive work with children. In this excerpt from her diary, Paulette, the buddy teacher, wrote about her relationship with Monika, the key teacher, and its influence on the way she worked with Amy, 6 months:

Through constant communication both Paulette and Monika know Amy's needs and current planning, as well as providing Amy with consistent responses, eg know what is an achievement for Amy and celebrate with her. When Monika was at lunch, Paulette saw an opportunity and brought out the treasure basket for Amy to explore and could provide Amy with the same sort of encouragement and support Monika used. As Amy trusts Paulette just as much, she was able to explore to her full potential without holding back. An example of consistent responses is when Paulette changed her tone of voice in excitement when Amy moved the pinecone with the tube, just like Monika had done when she moved it with the scraper.

Note especially the intimate way in which Paulette understands how Monika supports and encourages Amy. Confidence and trust in the work of the buddy teacher underpin the key teacher's actions. This communication and shared understanding within collaborative

relationships contributes to consistency and continuity for children and their families, and supports children's enquiry.

This system underpins the idea of self-sustaining teams, where all teachers in the section are responsible for the curriculum decisions within the centre. Paulette continued:

The other members of the team are another important spoke in the wheel. They all have formed a good relationship with Amy as she is involved in many group activities. When both Monika and Paulette are unavailable, the other members of the team step in. We communicate all the time, have lots of professional dialogue and exchange opinions and advice.

Self-sustaining teams support the daily workings of the centre so that everyone is involved in ensuring that the centre programme is running smoothly. The markers developed for the system of self-sustaining teams which is part of the distributed leadership structure (Nov 6 2006): are: trust, flexibility, respect, leadership and communication.

Trust in other members of the team is essential. Caryn wrote:

Our leadership base isn't about being told what to do and how to do something, it's a lot about trust. I trust our team that they have the child's wellbeing as their first priority. I trust our team that they know their children and families. But that trust isn't something you walk into a job having, it is built with honest and sincere leadership styles... Having that trust brings about a lot of motivation and self-reflection to continue to be all that we can be.

Flexibility is recognized, along with respect for others' ideas and the importance of everyone within the team. Caryn also wrote:

You have six other people standing behind you, keeping half and eye and ear on what you are doing. You quickly learn that your way isn't the only or best way for other children or team members and that although my approach works for me it doesn't mean to say that the centre would function any better if everyone did it my way. It can't be done on your own and you need those other six people beside and behind you all the way. It only needs a staff member to be sick or away to demonstrate their value to the team and their individual areas of strength and leadership.

While Heather wrote:

A further example of shared leadership is in the flexibility of the team to move in and out of roles. These include impromptu group activities, preparing food and bottles, changing nappies and clothes, cleaning up the setting, delegating, and providing support for the well-being of the group. We are very good at reading a situation and stepping in or out with ease to support each other. Regular use of initiative supports a steady rhythm to the day and where one staff member is busy another buddy or staff member is able to fill in for her, if required.

Working together to establish such close collaborative relationships with shared understandings is predicated on the expectation that teachers do not shift jobs often. Of the

seven teachers who began this research with the Hoiho centre, six are still in the group in November 2007 and the seventh left after two years, early in 2007. The majority of the team have now worked together for nearly three years and this has meant that they are a mature group who understand each other and are able to work together easily. In their final reflection, all of them acknowledged that they had different strengths that contributed to working together. In June 2007, Libby wrote:

As a team, we as individuals are all different. We all have different passions within the programme, so we are all able to offer different strengths to the programme. We are all role models for one another on the floor and we all know that we are in an environment which allows us to state our opinions or challenge each other on our practices, freely and safely.

Monika wrote:

I feel valued as a teacher/professional. Though I am not yet qualified, my teaching experience and ways of doing things are valued. Everyone recognizes that I am an individual and think in different ways, this is reciprocal with my colleagues. We discuss our practice and articulate to each other why we do things the way we do, as everyone listens and contributes we all feel equal.

And Heather wrote:

As a community of shared leadership we have all developed quite strong beliefs and approaches towards teaching and learning pedagogy... but we all respect the fact that we are individuals with unique strengths and particular ways of doing things. This is critical in maintaining a balance of inclusive and flexible practice and pedagogy.

Olivia described the teachers' unique strengths:

- Heather is our art person
- Caryn with a great knowledge of tikanga and te reo
- Raewyne the "chatter" (professional dialogue...)
- Monika and crafts also baking
- Kathleen the drama queen
- Libby, organising the planning and fantastic write-ups.

There were some temporary changes. For instance Caryn had three months' leave when she had a baby, and at the same time Olivia, the assistant manager had six weeks' leave to go overseas. As these teachers were "buddies" and worked with the same group of children, considerable thought went into managing these absences so that there was minimum disruption for the children and that their enquiry was supported. Olivia and Caryn reported:

Olivia's holiday was well planned in advance although Caryn's maternity leave was earlier than expected. Olivia and Raewyne spent some time considering what would be the best options for supporting the children and their families in the absence of these two teachers. Consideration was given to the fact that all the children and families knew Dolly, as she had been the COI release teacher for the past year. The decision was made to appoint Dolly into Olivia's position and have a regular reliever take up the COI position for the six weeks. The three-month maternity leave position was also of

some concern and we were lucky to be able to convince a past reliever to join the team for this period. This relief teacher, Teressa, was also a parent in the centre for some time before shifting to Auckland. During her time in the centre she had developed some strong relationships with many of the parents in the section (another familiar face). Teressa and Dolly both fitted into the team very well and worked hard to develop relationships with the children. This developing of relationships required all members of the team to support them as they spent time getting to know the children and their families in a different way.

Before going away Olivia discussed with Dolly Laila's enquiry and suggested that it would be interesting to carry on this focus, if she maintained her interest, while she was away and see how Laila participated in her favourite songs. Raewyne and Libby [who became the assistant manager in Olivia's absence] supported both Teressa and Dolly during this time, and although it was a really busy time with the COI milestone report due and with a visit from ERO, the teachers managed to stay focused and on task with the programme. Once again this was due to the support from the whole team.

In all of these reflections, which illustrate the building of interpersonal capacity, trust and respect are emphasised along with listening and discussion in order to develop shared meanings that will ensure consistency and the best learning for the children (shared purpose). Individual teachers' strengths are celebrated, and used in building a curriculum for the children.

Building personal capacity: Sharing expertise, questioning and engaging in critical reflection

If leadership is seen as distributed, as it is in the Massey Child Care model, then not just the managers but all of the teachers need to work on their understanding of both pedagogy and leadership. Teachers need to have strong curriculum knowledge and an understanding of leadership ideas and theory.

There has been a high level of professional qualification within the teacher researcher group. The Centre director and the Hoiho manager have, in addition to early childhood qualifications (degrees and registration), qualifications in early childhood leadership and in adult learning and teaching. The manager also has a postgraduate paper in early childhood leadership and the assistant manager and one of the teachers have papers in early childhood leadership and advocacy in their degree. Of the five Hoiho teachers, three have early childhood qualifications, and two were close to completing field-based training, leading to a diploma in early childhood teaching.

This level of qualification has meant that developing shared meanings about teaching and learning has been easier because the teachers have a mutually understood body of agreed

professional knowledge. During the action research, further reading and discussion of both pedagogy for infants and toddlers and ideas about leadership have taken place.

In her final reflection in 2007, Monika wrote:

Since I first started at the centre, which coincided with the start of the research, I feel I have changed quite a bit. My fundamental beliefs are still the same, but I have refined my skills. For example as I was writing a learning story for a child yesterday, I remembered all the things we talked about for the research. How do I know that Z is enjoying this experience (Z is 5 months old), I detailed all the movements she made and noted assumptions as such.

When Tane transitioned into the next centre, Caryn wrote:

I have come such a long way since my first observations of Tane and transitioning him to the Kiwi section. I saw and knew that he was an affectionate child and liked that physical contact which fitted in fine within the Hoiho section but he struggled at times not having access to his key teacher at any time in the Kiwi section. This led me to question whether it was something that I had somehow made him need or depend on me and after talking with Raewyne and rewatching the video observations I found that it wasn't about me and that was just who he was. Perhaps I wouldn't have even looked back on that before or been ok with that outcome but the research has taught me that there are very few questions you can ask yourself that don't make you a better person/teacher/leader, not matter what the answer.

Monika and Caryn are no longer working from a hunch: they are looking for evidence for their decisions. In order to do so they are strengthening their curriculum knowledge and assessment skills.

As well as developing a deeper understanding of curriculum, the teachers have increased their understanding of leadership theory and behaviour. While they had no difficulty in seeing the formal role of the leaders (as director and managers) in managing the COI and action research process, they had more problems in identifying the role of the managers in educational (pedagogical) leadership. During a staff meeting in July 2005, the teachers were encouraged to make links between their work and the pedagogical leadership of the manager and assistant manager. They were asked to find examples of how the managers had helped them in their understanding of teaching and learning. It rapidly became evident that while they could see how the assistant manager, who has a direct manner, was managing and leading the work of the centre ("she reminds us about what we should be doing"), they were less certain of how the manager was leading the teaching and learning process. The manager had assumed that personal conversations encouraging reflection and challenging their thinking would be seen as educational leadership, but the staff saw it as "Raewyne chatting".

As a result of this, one of the associate researchers took a seminar on educational leadership. This seminar focussed on how leaders affect teaching and learning. Southworth's model of modelling, monitoring and professional dialogue (Southworth, 2002) was used to help explain how the manager's low-key discussions had challenged staff and encouraged them to reflect more closely on their teaching.

The incident and seminar caused changes in the manager's thinking and practice. Raewyne was forced to reconsider her style. She wrote in her journal:

Lots of talking about educational leadership this week. I have decided that I will keep my relaxed and informal style of meeting with the staff but I will be more proactive on the floor in supporting the staff and promoting the *ABL* programme in practice.

Subsequently she reflected:

I am still trying to meet with the staff on a more regular basis but with the COI and the amount of meetings this involves it is just too hard! ... The COI is such a huge professional development tool anyway. I think the Hoiho staff team is constantly reflecting, discussing and developing strategies for improving their practice.

Two months later the assistant manager wrote:

I believe that the types of professional dialogue on the floor have changed since the beginning of the COI. After the workshop on leadership, I found all the staff reflecting a lot on both Raewyne's leadership and mine. They were very quick to define the difference in our roles ... [W]e had both discussed our roles and had very similar ideas to the staff.

Caryn, one of the teachers subsequently wrote:

The Centre of Innovation has created the time for us to carry out more in-depth, focused conversations off the floor, allowing more dialogue to help one another. The professional dialogue [the manager] and I have is invaluable and I like to feel that I challenge her just as much as she challenges me.

In these examples, teachers and managers are building personal capacity: not only knowledge and skills, but also "the active and reflective construction of knowledge", about both teaching skills and curriculum, and leadership.

Conclusion

Sergiovanni (2001, p. 72) writes that schools need to be

culturally tight and managerially loose. Teachers and other school workers respond much more to their values and beliefs, to how they are socialized and the norms of their work group than they do to managerial controls.

The above examples illustrate that, though managerial controls in this centre can be seen as loose, the ideals of distributed leadership and the values of the community of practice underpin the development by the formal leaders of structures, opportunities and safe places for leadership skills to emerge. Leadership capacity is developed through the creation of a system that invests in professional learning and relationship building.

The culture of distributed leadership means that teachers have developed the capacity to be "ready, willing and able" to take on leadership roles. They are aware of the responsibility and accountability that goes with such roles and take them on freely. The key to developing a community of practice model that provides a culturally tight value base has been the collaboration that went into its development.

In relation to Massey Child Care's community of practice, we argue that this is underpinned by co-constructed understandings. Teachers work together to utilise curriculum expertise that is viewed as residing in individuals but also as being developed for the whole group. The emphasis on collaboration and participation is strengthened by an understanding of the importance of professional knowledge, in this case knowledge of early childhood teaching, learning and development and knowledge of leadership roles and processes. Such knowledge is shared through professional dialogue, reading and study.

A system that the teachers see as distributed leadership has emerged. Leadership is dispersed across all teachers, principally in relation to their education and care responsibilities with the children. The manager, assistant manager and teachers have a responsibility for working collaboratively with the children and with each other. They have developed ways of doing this through working in personal, interpersonal and organisational ways: through sharing expertise, questioning and challenging, engaging in critical reflection; establishing support networks and collaborative relationships; and taking on leadership roles.

Chapter Four

Enquiry in the First Years

Introduction

One of the first tasks of the research team was to define their understandings of "enquiry" in order to respond to their research question. The following questions guided these understandings:

- 1. What does "enquiry" mean for children under two years of age?
- 2. What is the adult's role in supporting enquiry?
- 3. How do routines and processes in the Hoiho Section contribute to children's enquiry?
- 4. How is the continuity of children's enquiry maintained in transitions
 - a) between home and centre? and
 - b) within the programme during times of transition, such as when some teachers are absent for lengthy periods and between programmes when children transition to a two to five year old section?

This chapter begins by defining "enquiry" for children and developing markers for enquiry in infants and toddlers. It then shows examples of the markers, and the ways in which they are demonstrated by the case study children and supported by the teachers. An extended learning story of enquiry is then presented, showing the development of enquiry over a period of two years.

Defining a disposition to enquire

To enquire is to "make a search or investigation"; enquiring is "seeking or tending to seek answers, information" (Collins' English Dictionary). According to Wells-Lindfors (1999) to enquire is also "to seek to learn by asking", or "to seek information by questioning; enquiry is the act of asking" (p.ix). These definitions do not adequately capture the situation of preverbal children engaged in acts of enquiry, and educational research on enquiry tends to address the age groups of children who are verbal.

The psychosocial theory of dispositions provides some help in deciding what enquiry is for infants and toddlers. Dispositions to learn are defined as learning (or coping) strategies that

have become habits of mind, tendencies to respond to, edit and select from, situations in certain ways (Carr, 2000). By four or five years of age children are believed to have settled into one of two major dispositions that influence their approaches to learning. These are: a disposition towards mastery of learning, or a disposition towards approval of their performance from others (Dweck & Leggett, 1988; Smiley and Dweck, 1994).

Research suggests that children who are oriented towards mastery continually strive to increase their competence, relishing and striving to understand new and difficult situations. They view problems as solvable, and persist, seeking the expertise and support of others. On the other hand, children who seek approval from others tend to choose any option on offer, avoiding difficult tasks in order to maintain their appearance of competence by avoiding being judged negatively. Learning-oriented children maintain an even emotional keel when faced with difficulty, whereas performance-dependent children have few resources when they feel their performance is judged as lacking in some manner.

While to some extent dispositions are regarded as reflecting innate traits of temperament, research indicates that learning dispositions are strongly influenced by the cultural and social context of children's experiences (Carr, 2001; Davies, 1993). Stipek and Byler (1997) identified the influences of contrasting teacher beliefs and teaching/learning programmes on the development of children's learning orientations. They found that programmes where children learn through teacher-directed sequences of learning, often reinforced with the completion of worksheets to practise skills, encourage the development of children's performance orientation towards learning. Children are expected to follow instructions, thereby gaining the reward of praise and points for their efforts. In contrast, a teacher who believes in supporting children's mastery of learning will offer a programme of authentic activities based on children's interests and strengths.

Te Whāriki (Ministry of Education, 1996) adopts a sociocultural approach as a framework for curriculum implementation. The principles of empowerment (whakamana), holistic development (kotahitanga), family/whānau and community (whānau tangata) and relationships (ngā hononga), demonstrate the document's sociocultural foundations. The strands, goals and learning outcomes developed from these principles are further indication of the expectations that learning for this age group (birth to five) will be largely child-initiated and process-oriented and aimed at developing children who see themselves as capable and competent learners (Jordan, 2003). In furthering her work in developing Te Whāriki, Carr (2001) identified five domains of learning dispositions, all of which support children's mastery over performance orientations: taking an interest; being involved; persisting with

difficulty or uncertainty; communicating with others; taking responsibility. There are elements of all of these dispositions in "enquiry".

Enquiry consists of three compelling urges, in the social, the intellectual and the personal realms:

- to connect with others (social): infants are intrinsically social;
- to understand the world (intellectual): infants are intrinsically motivated to learn, to problem-solve, to be curious and to explore; and
- to reveal oneself within the world (personal): infants are individuals, each with their own personalities that they show to the world. (Rogoff, 1990; Wells-Lindfors (1999).

Social experiences teach children how enquiry happens. Adults talk, demonstrate, explain and engage with children's expressed interests. Children learn how:

- this adult responds to their interests
- this adult sees them
- to take conversational turns.

However children also need to engage fully in the enquiry; "sitting on the sidelines" is not enough. Engagement may not always be verbal, but there must be some kind of involvement in an enquiry event, even if this takes place at a later date following the child's "intent participation" of watching (Rogoff, 1998).

The Hoiho research team developed their own definition of children's enquiry. Enquiry is to be ready, willing and able:

- to think;
- to persist;
- to contribute;
- to collaborate;
- to investigate;
- and to be responsible for their own learning.

The team developed what they called "markers of enquiry", which describe the necessary precursors for enquiry to take place, with "signposts" that provide evidence of these in practice (see Figure 4.1). Observations of their case study children's enquiry were analysed by each buddy pair, with reference to these markers and signposts. The centre's commitment

to relationships are evident in the items in Figure 4.1, particularly in the items under "security".

	Markers			
	Security	Resourcefulness	Resilience	Reciprocity
GNPOSTS	Demonstrating	Being curious	Questioning	Showing tolerance
	primary & secondary			
	attachment			
	Showing independence	Being creative	Maintaining persistence	Engaging others
			over time	
	Knowing each other	Demonstrating	Demonstrating mastery	Taking leadership
		imagination		
	Recognising cues of body	Using your 'wits'	Solving problems	Working mutually
	language			
	Seeking out and using	Showing originality	Dealing with frustration	Doing in return
	secure base			
	Expressing an	Being inventive	Being flexible	Being models for each
	opinion/idea			other
	Demonstrating confidence	Seeking information	Approaching a	Engaging in the give
∞			challenge with curiosity	and take of
			and confidence	communication
	Enjoying company of key	Taking initiative	Demonstrating	Being socially
	teacher		expectations of success	competent
			(if persists)	
	Showing trust in self		Adapting effectively in	
			the face of adversity	
	Exploring independently	Experimenting	Regulating emotions	Showing trust in
				others; Engaging in
				shared endeavours
				with peers
	Engaging in joint attention			
	Showing playfulness and			
	humour			

Figure 4.1: Hoiho markers of enquiry

Early childhood teachers and parents see the factors that contribute to curiosity and exploration in young children as multidimensional (Chak, 2007). These factors parallel those that the Massey team have identified for their infants and toddlers: demonstrating an interest in knowledge, seeking and manipulating to find answers; the personal qualities related to curiosity of imagination, creativity and activity; exhibiting exploratory behaviour such as awareness of sound, wanting to touch things, interest in novelty, asking frequent questions and attentive observation; risk-taking, through being adventurous and interested in complexity; and the demonstration of focused attention.

Hoiho research ideas anchored the enquiry of infants and toddlers in security. Acts of enquiry were seen as exemplified by resourcefulness, resilience and reciprocity. Viewing the child as a competent, capable being requires a commitment to seeing the child in the context of social interactions; knowledge is seen as being continually constructed in the social environment.

When the teachers saw children's security and enquiry as central to their programme, they began to critique their practices and routines in more detail. Their commitment to their Community of Practice and the Hoiho Section's further commitment to their ABL programme provided the framework for practices that supported children's security, through their teachers and their centre environment.

Co-constructing enquiry, using narratives and projects

Central to the narrative approach to the documentation and assessment of children's learning is the identification of children's individual and collective interests and strengths (Carr, 2001). Adults who closely observe and listen to children and collaborate with their families are "ready, willing and able" to co-construct enquiry, both spontaneously and through ongoing project work. Tapping into children's "funds of knowledge" (Gonzalez, Moll & Amanti, 2005) in this way was used to show respect for the interests that children both bring with them from their home communities and develop in interactions with other children and teachers in their centre lives. The Hoiho teachers' commitment to *ABL* has also meant that they took their cues from children's immediate interests and considered whether the children's current physical and mental states might add to or subtract from their interest in engaging in specific activity.

As we have seen, three sets of key teachers generated data of six case study children (two children in each buddy pair team) over an eighteen month period. Each teaching partnership

(one key teacher plus one buddy teacher for each child) engaged with data generation with one child in each of two cycles of action research. Each teacher was thus able to focus on working with her case study child knowing that her buddy teacher, who knew the children as well as she did, was available to support this work. The buddy teacher sometimes worked with the other children and at other times when the COI reliever was present made the video recordings which were the key research data in the project.

Buddy Pair Teachers (real names)	Case Study Children (pseudonyms)		Chn's ages at the beginning of the Action Research
	Cycle One	Cycle Two	
KT: Caryn BT: Olivia	Tane		16 months
KT: Olivia BT: Caryn		Jane	15 months
KT: Monika BT: Paulette	Amy		6 months
KT: Paulette BT: Monika		Matu	18 months
KT:Heather BT: Libby	Rosie		16 months
KT: Libby BT: Heather		Alec	13 months

Figure 4.2 Buddy Partnerships in Two Cycles of Action Research

KEY: KT: Key Teacher; BT: Buddy Teacher

The following section details examples of the research data that led the teachers to the above model of markers of enquiry with infants and toddlers.

Children's security

This excerpt from the analysis of the video of Amy (aged 6 months) and the pinecone demonstrates some of the ways in which security is manifested. Throughout the research the children used their Hoiho key teacher as a reference, across time and space, to support their full engagement in enjoyable and challenging activities of inquiry. Monika uses Amy's trust and confidence in her to encourage her to continue to explore and she tunes into Amy's body language to engage in joint attention to her object of interest.

Portfolio extract: Amy and the pinecone

Body language:

When Amy touched the pinecone, she moved backward, then she arched her back by going from her knees to her toes. She moved forward, touched the cone and moved back again. Monika offered an 'escape' by pointing out other items: "Look there are some keys and brushes too", yet as Amy persisted with the cone. Monika accepted her choice by saying "you do like the pine cone". This expressed Amy's uncertainty, yet at the same time her persistent disposition as she came back again and again, four times. It also showed what Amy is capable of:

Independent exploration, has trust in self and others and confidence:

Though Amy is wary of the pine cone, she explores it without making eye-contact or referencing Monika in any way. Amy talks constantly: "aahh, babab, grrrr" and making blowing raspberry noises. Monika talks all the time too; "look at that strange thing, it rolls when I push it, it's prickly, but when I turn it over it feels smooth"; while she is manipulating the cone to reassure Amy, as well as commenting occasionally when Amy is exploring it. Amy does not engage in eye-contact with Monika, but looks at Monika's hand as she moves the cone. When Monika touches the cone, Amy reaches out at the same time to touch it, showing her trust in Monika and in herself, that she capable to do the same. This gives Amy added security: in knowing Monika is there, and approving or encouraging her exploration, she had a secure base. Monika and Amy know each other well and clearly enjoy each others' company.

Supporting security for a new baby in the section

An excerpt from Alec's portfolio when he was a two month old baby just settled into Hoiho, demonstrates Libby's attention to supporting his security and feelings of belonging in the centre. Alec's mother was invited to bath him in the sun at the centre. Here is Libby's documentation of Alec's story:

Portfolio extract: Alec joins the group



Friday 26th August

On a lovely sunny day, Alec was able to enjoy a lovely warm bath outside in the sun, with his Mum.

Alec's Mum got him undressed, while Libby got his bath ready outside. As soon as Alec was in the bath, he lay there all relaxed.

Alec began to stretch his arms out, with the warm sun beaming down on them.

The sun was rather bright for Alec's eyes, but he was quite happy. Alec moved his legs and feet around in the water.

Alec was making lots of eye contact with his Mum, while she was talking to him. After Alec had had a nice relaxing bath he got all nice and dry, the bath relaxed Alec so much that he fell asleep and had a lovely big sleep.

Links to Te Wháriki Belonging

Goal 2 Children and their families experience an environment where they know that they have a place.

Children's resourcefulness

The "resourcefulness" marker is represented in Carr's learning dispositions "taking an interest" and "being involved" domains (Carr, 2001, p.24). Here children demonstrate "being ready, willing and able" through their curiosity and asking questions, which in this age group are likely to be physically conveyed rather than verbally. The teachers have become experts in reading physical cues and children are experts in letting teachers know if these are mis-read!

Creativity and imagination were demonstrated throughout the programme. Items included in the children's portfolios were likely to include works of art and photos of peers interacting as they "use their wits" to invent new and original ways of solving their self-set problems. The children's activities recorded captured their strong senses of experimentation over sustained periods of time and over multiple sessions, as they sought information about how items in their worlds work and how they could interact appropriately with other children, to achieve their own ends. Children frequently took the initiative and because teachers know them so well they develop an ability to support the funds of knowledge that the children bring from home.

Video analysis excerpt: Amy investigates a spatula

Here is an excerpt from the analysis of another video concerning Amy, this time investigating a spatula:

Taking initiative

Amy chooses and picks up the spatula on her own account. She has the choice of many other objects, such as a basket with keys which she picks up briefly. In the basket which contains the spatula are several brushes of different description, one very similar with a long plastic handle. Amy looks at the objects and purposefully picks up the spatula. When she accidentally closes her fingers around the brush with the handle she lets that go and only lifts the spatula off the basket.

Seeking information

Amy uses different methods to gain information about this object, the spatula. She uses her senses to explore it, which is developmentally appropriate for Amy's stage of development. Amy uses her sense of sight mostly, when she first picks it up, she holds it up high right in front of her eyes and looks at it. Amy is on her hands and knees during the whole investigation, using one hand to manipulate the spatula and the other to support herself. As Amy lowers the spatula, she follows it with her eyes. When Amy tries to put it into the smaller basket with the keys, she looks at how it fits, while this also includes a sense of touch, she mainly used her eyes to investigate the size of the object. Only when Amy makes eye contact with Monika on one occasion and Dolly and Monika on another does she not look at the spatula.

Amy uses her sense of touch to explore the spatula when she grips the handle with different hands. When she lifts it and waves it up and down, she explores the weight of the spatula and can feel the greater weight of the rubber end pulling down.

Amy quite obviously explores the object with her sense of taste as she brings it to her mouth. First she picks it up near the rubber end and brings the plastic handle to her mouth, not quite bringing it in. This implied that she made a mistake and really wanted to taste the rubber, as she puts the spatula down, looks closely at it and manoeuvres her hand so she can pick it up holding the handle further down the other end. Amy then brings it to her mouth and puts the rubber end into her mouth, biting down on it.

If Amy uses her sense of hearing we can only guess, it probably makes a sound as she waves it up and down at a fast pace, yet there were no obvious signs that she heard this. The same goes for the sense of smell, which may have been used when Amy held the spatula close to her face, more in an accidental way if at all.

Inventiveness, creativity, using your wits and experimenting

Amy displays these dispositions when she for example waves the spatula up and down five times to feel its weight. No-one showed Amy this or instructed her to use this method. To investigate the size Amy tries to put it into the smaller basket, then back into the bigger one where it was originally. When Amy got the plastic handle to her mouth instead of the rubber end, she put the spatula down and picked it up with the other hand, trying again. Amy was clearly experimenting with the possibilities this object posed for her. She lifted it high and put it down low, used both hands to hold and manipulate it, used it for different actions, and tasted it as well.

Amy is habitually curious, demonstrating "an expectation that people, places and things can be interesting" (Carr, 2001, p.24). She is asking questions by closely investigating these objects of her interest in different ways and working out answers for herself. We as teachers cannot give these answers, but can support the exploration by showing interest, verbally supporting the child's work and supplying the resources.

Children's resilience

The research team has been challenged in its use of the term "resilience" because of the psychological literature that uses this term in reference to children who suffer quite extreme forms of adversity in their development (see for example von Eye & Schuster, 2000; Robinson, 2000). Rolfe (2004 p.74) however, makes the point that "Resilience has also been defined in terms of competence, particularly in social relationships". The team felt that resilience was more than "persistence" (Carr, 2003) when describing the infant and toddler problem-solving skills and the ways in which they coped with frustrations, adapted effectively in the face of adversity and returned to the problem. Here, the teacher recorded a demonstration of Tane's learning disposition of mastery as he persevered over time with his enquiry interests and questions. Throughout the research the teachers clearly articulated their philosophies and the practices that expect these children to solve their own problems, social and intellectual, with active teacher support.

Video analysis excerpt: Tane & the tunnel

Here is the analysis of the video of Tane showing resilience when the truck gets stuck in the tunnel:

When a truck gets stuck in the clear tunnel, Caryn asked Tane, "How are you going to get that truck out?" Tane reached up the tunnel from the bottom and waved his hand about inside the tunnel and looked to Caryn, which she interpreted as "see, I can't reach it, next idea". Caryn had asked "Can you reach it?" and let Tane know that it was OK that he couldn't and that she was going to continue to support and guide him. Caryn's body language was motivational and she jumped up to physically investigate the problem and role model a solution.

Even after the truck had got stuck in the tunnel, Tane had continued to participate in the experience by simply using only the second ramp. But it was Caryn that posed the question as to how he was he going to get that truck out. On reflection, the way Caryn phrased the question implied that Tane needed to follow through with it.

Caryn asks "What about from the top?" and puts her hand down the tunnel from the top. Tane watches Caryn but stays put at the bottom of the tunnel still with his hand up the bottom of the tunnel. Then Tane repositions himself to the top end of the tunnel and again attempts to reach his hand down but is too short. Caryn then reintroduces the black bucket Tane had earlier discarded from the experience and turns it upside down for him to stand on, "Look, we'll get this and stand up on there".

Tane can now reach down the tunnel and does, Caryn saying "Can you reach in and push it down?" Tane makes a couple of attempts to actually get in his hand in the tunnel but he has his fingers spread too wide and his hand won't fit. Caryn helps him to physically close his hand so it will fit into the tunnel. From here Tane managed to reach the vehicle and attempted to pull it up the tunnel but struggles so Caryn models a different strategy by banging on the tunnel which Tane imitates until the truck comes out of the tunnel.

It is Caryn's belief that Tane may not have persisted for so long (this part of the observation is just over two minutes long) if she had not been there offering possible solutions but he imitated her actions throughout which also indicated some type of desire to master it, to find a solution to this challenge. Caryn has an understanding of Tane's body language and is capable of 'reading' that and interpreting it in relation to contextual influences. She supported Tane in solving his problem of how to reach the truck, rather than allowing him to accept the easier option of ignoring it; this allowed Tane to feel mastery through problem-solving and the success of persisting over time in order to do so.

Children's reciprocity

Hoiho "reciprocity" markers of enquiry are included in Carr's (2003) domains of learning dispositions as "communicating with others" and "taking responsibility". Rogoff' (1998) and Wells Lindfors (1999) suggest that babies and toddlers need to connect with others because they are intrinsically social. Thet also need to reveal themselves because babies are

individuals, each with their own personalities that they show to the world. Children develop their social identities within their cultural milieu (Carr, 2001). Evidence indicates that children themselves co-construct their own culture, accepting some of their adults' expectations of them but rejecting others and, when given the opportunity to do so, developing their own responses to their environments in negotiation with their peers (Rutanen, 2007).

The Hoiho environment provided some excellent examples of children's tolerance as they engaged in mutual activity with others, demonstrating their social competencies in their give - and - take of communication, modelling ways of being and doing for each other, and taking and accepting each others' leadership with trust and acceptance.

Video analysis excerpt: Jane experiences music

Here is the analysis of Jane aged 15 months engaged in a musical experience. As part of the creative movement group plan her mother brought in her family favourite 80s CD to share with her friends.

Tolerance

Jane is engaged with the new 80s music sharing it with the group.

Engaging others

She is actively dancing; bopping up and down, twirling and moving to the beat. Watching Olivia's role modelling, Jane waves the ribbons the in the same motion as Olivia.

Taking leadership

Making sure everyone has the opportunity to use the ribbons, sharing the resources between her peers and the adults in her environment. Halfway through the song Jane picks up the telephone which was sitting on the table and looks to Olivia, holding the phone as if to say 'the phone is for you'.

Mutual working

Sharing the ribbons with all the children including the teachers around her. Raewyne enters the room with Matthew and straight away Jane spots her and takes her a ribbon to get her involved in the dancing session.

Doing in return

Sharing the ribbons with the teachers and her peers, scanning the group, including everyone.

Modelling for each other

Modelling and taking responsibility within the group including all her peers when handing out the poi and ribbons; a very inclusive approach, also cheering when the songs finish and prompting for more, mainly non verbally pointing and clapping.

Give and take of communication

Again this is mainly a non-verbal approach with communication through eye contact.

Social competence

Inviting the entire group to come and dance, sharing of the resources, having fun enjoying the company of the teachers and peers involved in something she loves.

Jane's enquiry is being extended through interactions and involvement with others and her environment. She is exposed to different types of music and movement through her individual planning. This impacts on her enquiry through extending her understanding and skills.

Conditions for enquiry are not always ideal

The full potential for enquiry requires teachers and children to be ready, willing and able to engage in activity with each other. In the following section, examples are provided of the Hoiho team recognising some of the less than ideal situations that interrupt full enquiry and support for the children as they regain their equanimity.

Absent father

For Matu, enquiry was about relationships with others, as much as with objects and knowledge. Here is the summary from two of his video observations, chosen by his key teacher and her buddy as containing the clearest evidence of his enquiry into relationships and the subsequent difficulties he experienced when the relationships about him did not support his need for security.

Video analysis excerpt: Matu investigates relationships

Two video observations of Matu; one in the playhouse and one on the big slide. Matu's enquiry mainly seems to be into relationships rather than objects. From informal observations, it is evident that he spends most of his time engaged with other children. This shows that enquiry is not only on an 'object' level, children need to learn about relationships as well and for some children it is more important.

During the period of observation, it became evident how important it is that children are ready, willing, and able before enquiry can take place. Matu went through a very unsettled period as he had a few changes in his life. His Dad was away [on a course for his work], he had been sick the week before and Paulette [his key teacher] had been sick the week before that. Paulette was able to document this and Matu's recovery in detail with his mother's input. Paulette spent a lot more one-on-one time with Matu. Monika, the buddy teacher, stepped in to care for the other children in Paulette's group. It really highlighted the importance of, and how well, the *ABL* programme works for children, families and teachers alike and the importance of relationships which is the core of the curriculum.

It was great to have so much input from Matu's mother during the observation and evaluation period. We regularly discussed the outcomes and where Matu is at with her. In both videos Matu is engaged in a lengthy interaction with H [another child] and we were wondering if this was a close and lasting friendship. H had been away for the last 5 weeks and while Matu seemed not to notice, on discussing this with Matu's mother she mentioned that Matu has talked and asked about H during that time. Matu said hello to H when he came back; he watched with interest and delight in his eyes when H and E were playing together and I have watched the three of them play "follow the leader" on the bikes for a while.

Absent teachers

As described in the previous chapter, Jane's key teacher, Olivia, and Olivia's buddy teacher were both absent for eight weeks. This excerpt was recorded before they left.

Video analysis excerpt: Jane

Olivia (Jane's Key Teacher) has a very strong, positive relationship with Jane and her family/whanau and this can be seen through their interactions and approach to routines and planning for Jane. Jane demonstrates a deep sense of belonging and security in this environment and this can also be observed in the video observation where she feels comfortable joining in new experiences especially involving new people such as Marcela (relieving teacher). Jane is very independent as a learner but can be seen to refer back to Olivia numerous times throughout the observation just to reassure herself before continuing her involvement and exploration of the experience on offer. Because of the type of links Olivia has with Jane's family / whanau, it means that Olivia is receiving a lot of feedback about Jane's strengths and interests at home also which is helping with effective planning (Buddy Teacher reflection).

Olivia and Caryn identified Jane's strong interest in music, and in the particular tunes of 'Knees up Mother Brown' and 'Beans'. Marcela, the relieving teacher, shared her own interest in the Salsa dance with the group, and it was later discovered that this exactly tuned in to Jane's enjoyment at home of Latin music.

Video Analysis Excerpt: Jane and the salsa

Yesterday Olivia was chatting to Marcela about her interests and what she does when not relieving here at Massey...she has been teaching the salsa and loves to dance. Olivia told Marcela about Jane's interest in body movement including music and Marcela offered to bring some of her Latin music and share her salsa dancing. So today we put the music on before lunch to share Marcela's dancing. Olivia also talked to Jane's mum yesterday about what Marcela had offered and she said that Jane loved Latin music and on Saturday mornings they listen to the Massey radio which has jazz all day in particular Latin jazz. Olivia thought it was great to have made definite home to centre links.

Today we had a dancing session as we often do on a day-to-day basis and Jane is always one of the first children to hear the music from the stereo and arrive on the dance floor. We began with the 'favourite' two songs that get played on a daily basis 'Knees up Mother Brown' and 'Beans'. Jane danced to both these songs, not so interested in the Beans song, but really participated in Knees up Mother Brown, pulling her knees up, spinning around in circles and observing staff and children.

We then put some salsa music on that Marcela brought into share. Marcela showed Olivia, Heather and the children how to move their hips and get the rhythm. Jane watched the teachers, danced and became really involved in the Latin music when offered a music instrument. We clapped our hands and shook the instruments, great fun and enjoyed by all.

Throughout the observation Jane often looked over to Olivia for reassurance, but at the same time was intrigued by all the teachers dancing and watched the teachers closely for their dance moves. It was clear throughout the video that Jane is familiar and comfortable within her learning environment. The dancing experience had been set up as Olivia knew this was a strong interest and strength of Jane's, through Jane's enquiry in the past.

Given such strong relationships between Jane and her key teacher and her buddy teacher, the Hoiho team was concerned to provide adequately for her relationships when both of Olivia and Caryn planned to be absent for eight weeks. Before going away Olivia discussed Jane's enquiry with Dolly and suggested that it would be interesting to carry on this focus, if she maintained her interest, while she was away and see how Jane participated to her favourite songs. The support from the whole team also contributed to sustaining Teressa and Dolly in their work as key teachers, staying focussed and on task with the programme. Several videos were taken over the eight weeks.

Video analysis excerpt: Jane is supported

Dolly demonstrated her commitment to supporting Jane in Olivia's absence, providing for her interest in music. However, Jane referenced Dolly less than she had Olivia or Caryn, although Jane was happy to join Dolly for her routine care.

It is evident throughout the video observations that Dolly referenced Jane far more often than Olivia does so on a day-to-day basis. Dolly was seen often going to Jane to support her transitions. This is likely due to Dolly's commitment to be there for Jane, ensuring the development of a secure base for her while the key teachers were away. Through the dancing video clips to "Knees Up Mother Brown" Dolly followed Jane's cue and offered Jane a variety of resources which Jane was happy to use. Jane made eye contact with Teressa throughout observations and enjoyed Teressa's participation by looking to her and smiling and laughing at Teressa's interactions.

In the video observations that were recorded it is evident that Jane didn't reference Dolly or Teressa nearly as often as she did Olivia and Caryn, but was comfortable and participated.

After six weeks Jane demonstrated clear evidence that she was really settled with both Dolly and with Teressa.

Dolly noted that during the sixth week Jane searched her out and took her by the hand to the seesaw, as she wanted a turn. There were other teachers present but obviously Jane had felt the need to have Dolly support her in this situation. To find Dolly Jane had left the area outside and gone inside to look for her, taking Dolly by the hand and guiding her to the seesaw and indicating that she wanted a turn. Now, six weeks later, Jane is offering Teressa ribbons and will chat to Teressa throughout her day at the centre.

Raewyne had been watching Jane's progress and noted that while she did interact with Dolly and Teressa, the emotional intensity was not the same as when she interacted with Olivia. There were fewer occasions of referencing than with Olivia. Not many of them were about "touching base" or seeking joyful interactions as there had been with Olivia. Another consideration was that Jane was sick while Olivia was away and was absent for two weeks. Once well, she settled quickly back into the centre with Dolly continuing the key teacher role.

Hoiho policies and practices supported their *ABL* programme, especially during periods in which children's security could have been compromised, through the normal transitions in life caused by illness, in families or in the staff, and during other planned or unplanned disruptions to the key teacher and buddy teacher system.

An extended learning story of enquiry

The COI research team has found it a complex task to describe the Hoiho Section's processes for encouraging children's enquiry. Documentation of children's enquiry is maintained in their learning portfolios. Each child's portfolio provides a multitude of glimpses into the child's experiences in Hoiho; each portfolio can be viewed as a collection of stories of the child's enquiry about people, about places and about things. In addition, the teachers' commitment to and understandings of sociocultural theory are demonstrated in the portfolio entries, which are assessment tools intended to inform children's ongoing authentic learning experiences. The child is depicted interacting with peers as well as with equipment and materials; teachers are included in the observations; community and cultural knowledge are clearly incorporated through the voices of parents and the inclusion of home funds of knowledge. These relationships are carefully fostered and valued.

This documentation shows that Hoiho teachers clearly hold images of the child as a competent being from birth, with preferences and individuality. They see a major part of their role as teachers as being in tune with these preferences and organising the environment to support them. The key and buddy teacher system and their self-sustaining teams, and

teachers' commitment to their *ABL* programme foster the close relationships and reciprocal understandings that are central to working with young children and their parents.

Alec's story provides insight to his development from a two month old baby in August 2005 to an over two-year-old in August 2007. We see clear evidence of Alec's progression from seeing to looking, from hearing to listening and from being moved, to moving himself and studying transport as a passionate topic of interest. Photographs show Alec developing from lying around to rolling over to pulling (himself) up, from creeping to crawling to stepping to toddling, from grasping to holding to dropping to tossing, from finding to searching, from poking to digging, from doing to thinking and planning. Even more fundamentally important as a human being, we see evidence of Alec as he fully connects with others.

It was not easy to select which of Alec's particular interests to use as a demonstration of how Massey Child Care Centre's beliefs and processes combine in the Hoiho environment to support Alec's unfolding enquiry. Alec has been involved in ongoing experiences throughout his time in Hoiho; insects, fish and animals; art, science and technology, music and movement all feature, as does language. Included as relevant in their observations are teachers' articulations about the content of the learning; statements from *Te Whāriki* locate learning in the goals and principles of our national curriculum, and research findings are juxtaposed with photographs and descriptions of experiences. The following excerpts provide a glimpse of Alec, his teachers and his peers as he learns about his environment and that he likes Thomas the Tank Engine, as one aspect of his interest in the larger topic of transport.

Portfolio extract: Alex and the radio

Alecand the Musical Radio

August 2005

I have discovered that Alec really enjoys listening to the different tunes on the musical radio. Alec moves his arms around to the music and he looks very intently at the radio, where the music is coming from. Alec likes to look at the bright colours which are on the radio.

Alec enjoys looking at any sort of bright coloured objects, but when they make a sound it is even better!

Links to Te Whāriki

Exploration

Goal 2

Children experience an environment where they gain confidence in and control of their bodies.

Learning outcome

Children develop strategies for actively exploring and making sense of the world by using their bodies, including active exploration with all senses, and use of tools, materials, and equipment to extend skills.

Alec's key teacher, Libby, understood that through observing his engagement in his activity, and how his "transformation of participation" (Rogoff, 1998) proceeds she was able to notice and respond to his cues and his learning. Making links to *Te Whāriki* reminded her of the very real learning in which Alec is engaged.

Alec and His Friend Matthew

October 18, 2005

On a lovely sunny afternoon outside on the rug, Libby was lying outside with Alec and Matthew. They were both lying in different directions and Libby wanted to see what they would do when they were lying side-by-side.

So Libby moved around, they both lay there for a bit, and then Matthew turned his head to look at Alec, and then Alec turned his head. They were the right distance apart for Alec to see Matthew's facial features. Both of the boys were moving their hands about and making different movements with their mouths. Matthew was reaching his hands out to touch. Alec was being quite vocal and making different noises towards Matthew. Libby thinks this is the start to a lovely little friendship.

Links to Te Whāriki Contribution

Goal 3

Children experience an environment where they are encouraged to learn with and alongside others.

Children develop strategies and skills for, maintaining, and enjoying a relationship with other children.

Alec's New Friends

September 2005

Since Alec has began in the Hoiho Section he has been a great fascination for some of the children. Alec being the age he is the children think he is just wonderful, being so much younger than all of the other babies. Amy is a great one for checking out the other babies who are on the rug; she will come over and sometimes give them a wee pat, just checking they are okay!

Elle on the other hand is the real little Mum out of the group, she will often come over to Alec and give him lots of cuddles and if his pacifier has come out she will put it back in!

Elle also gives Alec lovely little kisses on the head ©

Jack is very fond of Alec as well and he knows that Alec belongs in his group and that I am Alec's Teacher. Jack is always looking out for Alec and he will come and check on him and say "Hello" to him and if by chance Jack sees Alec's pacifier come out he will pop it back in.

Links to Te Whāriki

Contribution: Goal 3 Children experience an environment where they are encouraged to learn with and alongside others.

Children develop an appreciation of the ways in which they can make contributions to groups and to group well-being.

Children's interactions with each other are valued. Peers and adults belong in the observation.

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Relationships Conclusion

November 2005

Over the last couple of months Alec has grown so much, and over this time Alec has made more and more friends. The children in the section have become a lot more familiar with Alec, as he is a bit younger than the other children. The older children will often come and say 'hello' to Alec if he is lying on the floor, and sometimes if Alec is crying the older children will go and talk to him and maybe even give him a toy! Within this early childhood environment the children in one way or another take care of each other and look out for one another. The children who are beginning to talk and say names will say "Alec", smiling away at him.

When Alec is lying on the floor near Matthew they both chat away to one another, smiling away. Throughout Alec's time in the Hoiho Section he will build more and more relationships as he grows.

Since enquiry is founded on relationships, Alec's introduction to Hoiho set him up well to continue his developing skills of enquiry. Libby consciously encouraged and reflected on his security in her, her buddy teacher and his relationships with his peers, both other infants and toddlers.

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February 2006

Welcome Back Alec

Alec has grown up so much over the Christmas break, he is so much more confident on his feet and his language is coming along in leaps and bounds.

Alec has had to get used to a few different things within our little whanau group, he is no longer the baby of the group and at times Libby's attention and focus has been on Mary the youngest of the group. It has been hard at times to come to terms with the fact that that bottle is always not for him it's for Mary We talk through these moments and then afterwards we'll share a moment together whether it be Alec having a bottle or reading a favourite book together. Alec is very lovely with Mary and he is very gentle. Letting Alec be involved in routine times with Mary is helping.

Alec has now realized that because he is not the youngest any more and he is just as mobile as everyone else he is sorting everyone out as to where they come in the rankings of the group; finding his place in the group, edging up to being one of the "Big boys!" It is great to observe Alec becoming more independent and more confident, in standing up for his rights, over toys!

Alec's language is coming along great he beginning to say a lot more words; animals, transport, his peers' names; it's great to hear.

I'm sure this year will be great and many more adventure lie ahead for you Alec.

Libby

Libby's observation paid attention to Alec's physical growth and development; his language; change in the group age hierarchy and all that that means for him as a group member; and in his emerging interest in transport as a topic of particular interest. While his interest in animals of all kinds continued, so did his passion for transport, especially when it metamorphosed into a passion for Thomas the Tank Engine. Now a toddler, Alec engages fully with the infants, with his peers and with his teachers.

Portfolio extract: Transport

Planning for Alec's interest in transport

Massey Child Care Centre Hoiho Section Observation April 07.

Name: Alec Staff Member: Libby

The interest of transport has been apparent for a while; Alec very much enjoys playing with the toy cars, the diggers and trucks out in the sandpit. Alec enjoys playing on the floor with all the different sorts of transport. Driving the cars and trucks around on the road mat and looking at all the different sorts of transport that we have to offer the children.

Alec really enjoys the train set when we get it out; he will join the tracks together and push the trains around that he has also joined together by the magnets on them. Alec at the moment has a great fascination with Thomas the Tank Engine, so every toy train he sees or plays with is Thomas. It was very exciting when Alec came in one day with Thomas the Tank Engine slippers and then the following week he came with gumboots, with Thomas on them!

Alec is really interested in the transport books which Libby got for him, because he has shown such an interest, Alec will often carry his favourite books around, pointing out his favourite form of machinery, "digger, digger" If Alec hears a plane going over head he will point and say "plane, plane."

In the bathroom we have a transport poster on the roof which Alec enjoys looking at and naming all of the vehicles he sees.

In this holistic integrated curriculum Alec has been provided with opportunities to deepen his experiences of transport through everyday occurrences, such as wearing clothes, and through especially provided activities, such as reading particular books posters.

Massey Childcare Centre Hoiho Section Planning.

Date: April 07 Name: Alec Staff Member: Libby

What do these observations tell us?

Links To: (1) Te Whāriki, (2) Human Development,

- (3) Developmental Milestones,
- (4) Area of Play, (5) Strengths and Interests.

Te Whāriki -

Exploration – Goal 1 Children experience an environment where their play is valued as meaningful learning and the importance of spontaneous play is recognised.

Human Development – Alec has developed great self-control, in the way he moves his body and is able to balance himself easily on his feet. Alec is developing further fine and gross motor skills.

Alec's verbal language has become a lot more prominent over the last couple of months and it continues to develop, as he learns and develops within the centre environment.

Developmental Milestones –

Alec's language is coming along well. He is using lots of single words and attempting two or three word sentences. He is very good at being able to express displeasure and excitement. Alec displays independent behaviour.

Areas of Play -

Alec enjoys the outdoor environment, playing in the sandpit with the diggers and trucks; playing on the fort or riding the bikes and the cars around. Alec really enjoys the outdoors. Alec also enjoys sitting down with a book and looking at the different transport or animals.

Strengths and Interests -

Alec is really interested in heavy machinery, particularly the real thing! Alec really enjoys music of any kind and he will quite happily dance around with the poi.

Alec loves playing with balls, throwing them up in the air; "Ready steady go!"

Experiences to Be Offered:

Setting up roads
Having a look at Heavy Machinery
Going to the Airport
Look at transport
Using the train set
Books
Go for a walk around campus
Have a fire engine to come and visit
Using the diggers and trucks in the sandpit
Go to other sections for a visit to see what transport they have
Watch "Thomas" DVD

Teaching Strategies.

e.g Scaffolding, Co-construction, Self-directed learning, Joint attention, Peer group support, Repetition of experience, etc, etc. What comes next?

Libby will be there with Alec while he explores experiences; supporting and interacting; scaffolding; encouraging him with his interest and to learn alongside others; describing; sharing; co-constructing; and modelling.

Alec is a very independent young boy so therefore there will be a lot of self directed learning going on, testing his limits and boundaries.

This could as well be a study of Alec's developing skills in literacy, or in technology, or in music, as it is in his enquiry about transport.

Looking up Thomas the Tank Engine

April 2007

Alec has had a really strong interest in Thomas the Tank Engine, so Libby decided to look up Thomas on the laptop. Libby told Alec that she was getting the laptop to look Thomas up he got very excited repeating "Thomas, Thomas". Alec, Matthew and Archie came with Libby to get the laptop out of the conference room. We all sat up on the couch and Libby typed in the words Thomas the Tank Engine, a lot of sites came up and we looked in the first one which was a great site. We discovered lots of pictures of Thomas and games we could play. Alec got very excited and was pointing to the pictures and saying "Thomas, Thomas". Alec was very interested in this experience and was more than happy to sit and interact with Libby and his friends. Gaia, JD, Emma and Archie showed an interest in investigating Thomas as well. Libby saved some pictures and some interesting facts about Thomas on the computer so that it would be easy to go back and print them out.

Once we had enough pictures and facts about Thomas, Libby took, Alec, Matthew and Emma into the conference room to print the pictures and facts out about Thomas. Matthew, Alec and Emma all sat up at the computer and watched as Libby printed out pictures and facts out about Thomas.

This was an informative experience for Alec and his friends; he was able to join with Libby and use the laptop and be involved in the process of investigating Thomas and printing out that information. Libby then made a space on the wall for all of the pages that we found and stuck them up. Libby showed Alec once he got up from bed and Alec was very excited pointing and saying "Thomas, Thomas".

Now whenever the laptop is brought out Alec will come over and say "Thomas, Thomas". He has made that connection and remembered what we did with the laptop, and what we looked up!

Links to Te Whāriki Contribution Goal 3

Children experience an environment where they are encouraged to learn with and alongside others.

Children develop an appreciation of the ways in which they can make contributions to groups and to group well-being.

Alec's portfolio contains many pages of information about Thomas the Tank engine, information gleaned from many sources including the web, library books and from home. Since Alec frequently accesses his portfolio, each entry provides opportunity for him to revisit and revise, deepen and extend his understandings, in interaction with his peers and his adults. These interactions deepen his understandings about people and how to interact with them alongside his understandings about the project.

Portfolio extract: The train set

Alec and The Train set

May 2007

Since Alec has been really interested in transport Libby thought that it was a great idea to have the train set out. Alec now takes a lot of pride in his train set, and is very careful not to break the tracks. Alec has his favourite two engines Percy and Henry, from the Thomas the Tank engine collection of course, and Alec refers to them as Thomas! On this particular morning Kathleen worked alongside Alec to make the train track, with two tunnels of, which Alec loves to push the trains through. Alec lines all of the trains up and is sure to match the magnets up the connecting way and if they don't connect he simply turns them around the other way; very clever.

Links to Te Whāriki Exploration Goal 3

Alec experiences an environment where he is learning strategies for active exploration, thinking and reasoning.

Alec is developing the confidence to choose and experiment with materials, to play around with ideas, and to explore actively with all the senses.

The learning that went on for Alec was the increasing ability to be tolerant and be persistent in connecting the trains and the tracks together.

Watching Thomas on the Big Screen

May 2007

As part of Alec's fascination with Thomas the Tank Engine Monika kindly went and hired two Thomas dvds from the town library. So on Wednesday the 2nd Libby set up the conference room as a little movie theatre, Libby organized the projector and got it all going, and we were all set: 5,4,3,2,1, ACTION! Libby went and asked Alec and his friends if they wanted to come and watch Thomas and they were all very enthusiastic and came running to the door. The children sat down on the mattresses and were all focused on the screen. Once Thomas came on the screen there were lots of "Thomas", "toot, toots" and "choo, choos". The sat for a good 15 minutes very intently watching what was on the screen. Throughout the movie the children were pointing and singing out. Matthew and Alec were very focused on the screen and watched with great anticipation.

Making Thomas Cupcakes

9th of May 2007

Alec's fascination with Thomas the Tank engine was able to be expanded once again when Caryn bought in some Thomas the Tank engine mixture. The mixture came in a box with Thomas the Tank engine on the front of it and inside it had Thomas and friends edible pictures to go on top.

Alec, Matthew and Archie all gathered around and waited patiently for their turn to pour in the ingredients. All of them had a turn at pouring in the mixture out of the packets and then it was time to add the egg, the water and the oil. On the box there were pictures of the ingredients and when they needed to be added, so Alec, Archie and Matthew were able to relate the ingredients to the pictures.

In goes the egg, plop! In goes the water..... In goes the oil......

Thanks for your help Alec and Archie.

Then it was time to mix all the ingredients with the electric beater, but it was a little noisy for the children which put them off holding it, but they all watched with interest. Once all the ingredients were mixed together, it was time to put the mixture into the patty cases.

Once everyone had a turn at putting the mixture into the tins, we put them into the oven and 15 minutes later they were cooked. Libby iced the cup cakes and put the edible pictures on them and then the children got to enjoy the cup cakes at afternoon tea time.

Links to Te Whāriki Contribution Goal 3

Children experience an environment where they are encouraged to learn with and alongside others.

Children develop an appreciation of the ways in which they can make contributions to groups and to group well-being.

Libby let Alec pick his own cupcake knowing which one he would pick, pointing to the cupcake and saying "Thomas, Thomas", Alec spent some time admiring the picture of Thomas on his cupcake and then he slowly took a bite and started to enjoy it. Making the Thomas cupcakes was a great experience for Alec and his friends.

The Digger Poster May 2007

As part of Alec's strong interest in transport and machinery and also as part of our new group interest in language, Libby went shopping and got some new posters. One of them was of course a machines poster. When Libby first showed Alec he immediately said "Digger" and came with Libby to put it up on the wall. Libby and Alec went through all of the machines "grader, excavator/digger, dump truck, wheel dozer, bull dozer and wheel loader."

Alec keeps revisiting the poster and Libby is encouraging Alec to say the names of the other machines as well as just "digger".

Links to Te Whāriki Communication

Goal 2

Children experience an environment where they develop verbal communication skills for a range of purposes.

Alec will develop the expectation that verbal communication will be a source of delight, comfort, and amusement and that it can be used to effectively communicate ideas and information and solve problems.

Summary of Alec's Learning

Over the past month and a half Alec has been offered many exciting experiences to do with his interest in Transport. Alec has had the;

- opportunity to use the laptop with his friends,
- looking up Thomas on the internet
- watching the Thomas dvd on the laptop,
- watching the dvd through the projector, which was just like at the movies.

Whenever Alec sees the laptop now he will come over and say "Thomas," remembering that's where he saw him.

In the sandpit Libby set up a big paper roll for Alec and his friends to put their cars down, which Alec enjoyed especially the idea of a tunnel!

Alec had a routine every morning over the past month where he would come in and go to the train set basket and play with the trains. On a few occasions when Alec and Libby went for walks to the Kea and Kiwi sections, Alec would see the photo of the digger on the hallway wall, then Alec had the opportunity to explore the other sections cars and trucks and things. Libby set up roads outside on several occasions, where Alec and his friends would ride their bikes around following the road. Alec thoroughly enjoys books so it was even more exciting when there were transport books out.

Alec's language has developed more over the last two months, really vocalizing his views, and coming out with some great words, and two and three word sentences. Alec enjoys looking up at the posters in the bathroom and naming the pictures, which is why the group plan is so appropriate for Alec, because he is so interested in listening to people, singing, vocalizing himself and learning and giving new words a go

summary of learning language

30.7.07

Over the last few weeks, Alec has participated fully in our language plan. Well, really it came quite naturally as Alec has just rocketed ahead with his verbal language development.

Alec developed the use of verbal language further to include all sorts of different situations, for example negotiating with peers, asking for his needs to be met, as well as expressing emotions. Alec is a great fan of Thomas the Tank engine and has shown great enthusiasm towards his interest; matching letters with the names of the engines and also the names of people around him which was fantastic. Alec also participated in the music experiences and his interest of music and movement surely contributed to this enhanced language development.

Without a doubt Alec's language is expanding and with our new plan living creatures, it will only encourage him with more, new exciting words.

Children refine their language on their own. They don't need corrections or language lessons. They learn by being part of real conversations – ones that move forward. (Gonzalez-Mena, 1989)

Communication, goal 2: Children experience an environment where they develop verbal communication skills for a range of purposes.

As Alec prepared to transition to the next centre, he remained passionate about Thomas the Tank Engine and about transport. However he was equally passionate about exploring the animal kingdom. His interests and funds of knowledge were continually extended wherever possible.

Libby's thinking about Alec's transport project includes many areas in the centre and in real life, including the clothes he wears and the food he eats. The Hoiho community of practice subscribes to and provides for a holistic philosophy of learning on two fronts: that of domain knowledge, both developmental (language, physical, cognitive, emotional social, emotional) and bodies of knowledge (science, arts, language). It is also holistic in terms of curriculum implementation, in that plans for ensuring that Alec's experiences in transport are more complex and will encompass many areas of both forms of domain knowledge. Such an approach has encouraged the integration of all aspects of learning.

Teachers working with infants and toddlers almost automatically cater for their developmental domains and in Hoiho the systems set up endeavour to ensure that relationships are supported. In the domain areas of bodies of knowledge, teachers frequently research to extend their own understandings of the topics of children's interests. Teamwork with other teachers and with parents have been found to be important in accessing specialist information. The computer was also a tool that supported this research.

A learning story of enquiry necessarily spans a period of time, months, years, perhaps a lifetime. It is not linear but inclusive of many areas of enquiry. The teacher's role in supporting this story has been a complex and demanding one; she not only needed to know the child really well but she also engaged with his areas of interest, researched these interests and provided activities to extend and complicate them – and she must do this for the six or more children for whom (with her buddy) she was responsible in her group. Maintaining the documentation of each child's progress was a commitment and one that was fulfilled through the supportive culture and leadership of the whole centre.

Conclusion: What do we know about enquiry now?

By June 2007 the teachers were able to clarify the immediate factors required in order for children to be able to benefit from their teachers' commitments to supporting their enquiry:

- Enquiry is not only about playing with objects, it is also about enquiring about relationships, and could be also about language.
- Infants and toddlers need to be ready, willing and able: have a secure base to enquire from, have good attachments, be healthy, both physically and emotionally. Children are usually willing, but sometimes not able, eg when sick, or unhappy.
- Infants and toddlers always enquire about something, unless the child is very sick.
 They look, listen, feel, touch and taste all the time, using their senses to make sense of their world.

Viewing the child as a competent and capable being requires a commitment to seeing the child in the context of social interactions and to viewing knowledge as being continually constructed in this social milieu. In this study teachers and children at Hoiho have been ready, willing and able to co-construct learning, together working on their relationships and on their understandings and theories about their worlds.

Young children need to learn to connect with others as social beings, to understand the world intellectually through their intrinsic motivation to learn, to problem-solve, to be curious and to explore and to reveal themselves within the world as the individuals they are. This research has provided indications that teachers' support of children's dispositions for enquiry is founded in security and recognisable in children's resourcefulness, resilience and reciprocity. Children with a strong disposition for enquiry are thus well-prepared as learners, with dispositions for mastery rather than for performance.

Chapter Five

From Leadership to Enquiry: Teacher Leadership Supporting Children's Enquiry

Introduction

During their research the teachers continually returned to the developing model of the community of practice's distributed leadership and the elements of enquiry. This chapter presents their final model, supported by analysis of activities and outcomes for all participants in the three planes in which the original research questions were formulated. The significance of activity in all three planes is explored.

A model of enquiry founded in leadership

Rogoff (1998) developed Vygotsky's intra-mental and inter-mental planes of learning into what she described as "planes of activity", or lenses that allow a focus on one aspect of the activity, while holding other planes as background lenses to the current focus lens. The concepts of a "community of learners" (Palinscar, Brown & Campione, 1993), and a "community of practice" (Rogoff, 1998; Wenger, 1998), incorporate the contributions to meaning-making of interactions between people and between people and artefacts, on several planes of activity and across space and time. Addressing each plane of activity provides a check on the comprehensiveness of analysis.

The planes do not exist in isolation. They are mutually constitutive, in that the desired outcome of encouraging children's dispositions for enquiry, an outcome in the personal plane, requires particular types of interactions in the interpersonal plane that are made possible by the philosophies, policies and processes set out in the community/institutional plane. The term "spiral reciprocity" (Salomon & Perkins, 1998) aptly describes such mutual influence between planes, which is depicted in Figure 5.1 by the arrowed movement of the spiral linking all three in ever-changing cycles.

Foundations of Enquiry



Figure 5.1. Foundations of enquiry

The Hoiho community of practice resides in the whole centre's institutional/community plane. The centre's version of distributed leadership, which is enacted in the interpersonal plane and supported by actions in the organisational plane, is consistent with their community's philosophy. From this their processes for ensuring security for all participants, parents, teachers and children, in the personal plane have been developed. Hoiho research has provided some evidence that for this centre the outcome of a disposition of enquiry for

children is dependent on their foundations in all planes and the consistency, or spiral reciprocity, between them.

This research has identified that for this teaching situation, enquiry is founded in security and nurtured in the development of children's resourcefulness, resilience and reciprocity. The markers of these dispositions (see Chapter Four) identified by the teachers in their data closely reflect Carr's (2001) five "domains of learning", which relate to not only to enquiry but to a disposition for learning in general. Data have also provided some evidence indicating that children's enquiry interests are about relationships with others as much as they are about investigating cognitive knowledge of the world. It seems clear that children's enquiry is central to their learning about people, about things and about themselves and their relationships with others.

The research questions

The main research question was:

In what ways does educational leadership, within a community of practice, impact on infants and toddlers disposition to enquire?

The set of research sub-questions in the three planes of activity are:

Supporting questions in the community/institutional plane:

- In what ways does leadership impact on a community of practice?
- How are the centre's teaching and learning processes influenced by the implementation of the community of practice?
- In what ways do self-sustaining teams impact on infants' and toddlers' dispositions to enquire?

Supporting questions in the interpersonal plane:

- In what ways does the centre's Attachment Based Learning programme impact on infants' and toddlers' disposition to enquire?
- In what ways does the centres' Attachment Based Learning programme impact on the transition process for infants and toddlers?

 What are the characteristics or elements of the teaching/learning relationship that influence/contribute to fostering children's developing disposition to enquire in the infant and toddler section?

Supporting questions in the personal plane:

- What is the evidence that children's disposition for enquiry has been enhanced by their teachers' commitment to their Attachment Based Learning programme within their community of practice?
- What happens for teachers when they work in a team that exhibits educational leadership, within a community of practice?

These sub-questions in each plane of activity were utilised as a guide throughout the research, to ensure that the team was comprehensively addressing the major research question. The research team continually sought to make links between the evidence of enhancement of children's enquiry, the roles teachers played in supporting this and the sources of support for the teachers in their leadership practices, founded in the community of practice and in their commitment to their *ABL* programme. This process included the development of the teaching team's logo (see cover). This early model was developed to represent the complexity of the concepts and processes that have contributed to outcomes for children and for teachers in the Hoiho Section that go beyond enquiry to encompass the whole work of the section.

Research findings

In the community/institutional plane

The community of practice, self-sustaining teams and ABL all contributed to teachers' work with children and to enhancement of enquiry

Each teacher is valued for her specific areas of expertise. Knowing what these teacherinterests are support all teachers in identifying child-initiated interests and accessing other teachers in extending these.

Excerpt from Caryn's journal

It's a little bit like being your own boss sometimes, you know what needs to be done and when, and you have your own way of doing things that works for you and your group of children.

But you have six other people standing behind you, keeping half an eye and ear on what you are doing. You quickly learn that your way isn't the only or best way for other children or team members and that although my approaches work for me it doesn't mean to say that the centre would function any better if everyone did it my way.

It can't be done on your own and you need those other six people beside and behind you all the way. It only needs a staff member to be sick or away to demonstrate their value to the team and their individual areas of strength and leadership.

For example Heather and her management and leadership of our vegetable garden; and while I celebrate that and totally understand the benefits from having a vegetable garden, this is simply not an area I hold any strong interest in therefore wouldn't necessarily initiate unless it was child lead. There are standout teachers leading in some specific areas. For example; Olivia and the environment, but then reflecting on it this is something that I need to talk to teachers about because I don't know as much as I would like to know about each individual teachers' strengths and interests. I know their personalities and how I perceive their practice and teaching styles, strengths and weaknesses.

Analysis

A self-sustaining team outcome: all teachers are leaders.

Valuing others' support.
Being a team member.
Articulating one's own
philosophy and areas of
expertise

Valuing others' interests and expertise

Valuing others' interests and expertise

Learning from and about other teachers.

Seeing herself as a strong leader within a team of leaders

Caryn's excerpt provides comment on the value of the distributed leadership/self-sustaining team practices that emanate from the centre's understandings of the community of practice. Caryn and the team's commitment to *ABL* is exemplified in knowing the children well, being able to identify their interests and being able to match these interests with those of a particular teacher in the team.

In the interpersonal plane

All teachers have developed strategies of working with children to enhance their enquiry, especially in identified areas of specific interest to the children.

These strategies include (but by no means are limited to):

- Offering alternatives while accepting the child's choice;
- Identifying the child's independent exploration, trust in self and others and confidence:
- Supporting the child through uncertainty;
- Verbalising actions to reassure child;
- Modelling actions to encourage the child to mimic;
- Co-constructing the direction of the activity;
- Responding to child's body language and interpreting it in relation to the learning context;
- Using body language to model a problem and potential solution; also to motivate ongoing interest;
- Supporting the child in persisting with the problem (supporting resilience);
- Introducing equipment in support of problem-solving;
- Supporting the child physically; and
- Maintaining the child's concentration on the problem (supporting ongoing resilience).

Excerpt from Heather's journal

I think that it is through the strength of the *ABL*, relationships, "shared decision-making and the development of responsive, reciprocal and emotional relationships" that the child develops social identity and a capacity for self governance. It is then the role of teacher to honour the intent of the child. See the child as capable, confident and acknowledge the contribution they bring to the setting.

Resilience is also about learning dispositions.

I see resilience as the ability to persist with an objective or interest, within various contexts. I see this resilience in terms of strong

Analysis

Clearly articulating role as a teacher – "honouring the child's intent".

Making links between philosophy of *ABL* programme and what children learn.

Making links between theory and observed practice.

identity and sense of security/ belonging, this includes the development or acquiring of strategies and skills which enable the child to meet his/her objective.

e.g. Alec freely explores all areas of interest confidently and constructively. However he will remove himself from an area of unsettled behaviour to an area of interest such as the jigsaw table and he will choose the animal puzzles....where he will work away smiling, and making animal noises.

Alec takes his time warming to stranger's faces within the setting. He prefers to take responsibility for developing a relationship rather than having somebody in his face. This is a particular temperament of Alec's, one which we have observed over time and one which we appreciate and respect without inappropriately labelling. His way of dealing with this is basically ignoring the new face, and getting on with his daily business, until over time he may slowly become more sociable.

Janet Gonzalez Mena states that resilient children have specific characteristics.

"They have an active approach to life's challenges; they look for resolutions to problems. They also seem to understand cause and effect, things usually happen for a reason. Resilient children are able to gain positive attention, they are appealing and sociable, with an easy going disposition. Finally they see the world as a positive place, and they believe in a meaningful life.

I guess the point I am trying to make is that I don't necessarily see resilience in regards to the context of conflict, adversity or a deficit.

Knowing the child well, honouring children's ways of being.

Refraining from labelling children; valuing children as they are.

Making links between theory and observed practice.

Utilising the research model to reflect on characteristics of enquiry.

In the personal plane for children

Supporting children's resilience for problem-solving is a key to enquiry

A perennial problem in teacher research is in making clear links between teachers' philosophies and practices, and the outcomes of these for children's learning. Bronfenbrenner warns of the difficulties of separating developmental outcomes, where established patterns of individual mental organization change over time, from differences that occur because of a particular life experience. He recommends taking into account the *context* in which the development occurs; the *personal characteristics* of the people; the *process* in which the development occurs, and the *interactive moderating effects* of person and context

(Bronfenbrenner, 2005, p. 78). It is however possible to demonstrate the ways in which children's disposition to enquire is enhanced, through teachers encouraging their resilience. Children are supported through their uncertainty and encouraged to persist and cope with a frustrating situation.

Caryn and Olivia provide an excellent example of encouraging Tane to persist to problemsolution.

Excerpt from Caryn's journal

When a truck gets stuck in the clear tunnel, Caryn asks Tane, "How are you going to get that truck out?"

Tane reaches up the tunnel from the bottom and waves his hand about inside the tunnel and looks to Caryn, which she interpreted as "See, I can't reach it, next idea". Caryn had asked "Can you reach it?" She spoke in a tone of voice that let Tane know that it was OK and Caryn was going to continue to support and guide him. Caryn's body language was motivational and she jumped up to physically investigate the problem and role model a solution.

Even after the truck had got stuck in the tunnel, Tane had continued to participate in the experience by simply using only the second ramp. But it was Caryn that posed the question as to how was he going to get that truck out. On reflection, the way Caryn phrased the question implied that Tane needed to follow through with it.

Caryn asks "What about from the top?" and puts her hand down the tunnel from the top. Tane watches Caryn but stays put at the bottom of the tunnel when Caryn asks this, still with his hand up the bottom of the tunnel. Tane repositions himself to the top end of the tunnel and again attempts to reach his hand down but is too short. Caryn then reintroduces the black bucket Tane had earlier discarded from the experience and turns it upside down for him to stand on, "Look, we'll get this and stand up on there".

Tane can now reach down the tunnel and does, Caryn saying "Can you reach in and push it down?"

Tane makes a couple of attempts to actually get his hand in the tunnel but he has his fingers spread too wide and his hand won't fit. Caryn helps him to physically close his hand so it will fit into the tunnel. From here Tane managed to reach the vehicle and attempted to pull it up the tunnel but struggles so Caryn models a different strategy by banging on the tunnel which Tane imitates until the truck comes out of the tunnel.

Analysis

Teacher responds to child's body language and interpreting it in relation to the learning context.

Uses own body language to model a problem and potential solution; also to motivate ongoing interest.

Supports the child in persisting with the problem (supporting resilience).

Introduced equipment in support of problem-solving.

Supporting the child physically; demonstrating physical solutions.

It is Caryn's belief that Tane may not have persisted for so long (this part of the observation is just over 2 minutes long) if she had not been there but he imitated her actions throughout which also indicated some type of desire to master it, to find a solution to this challenge.

Maintaining the child's concentration on the problem. (supporting ongoing resilience).

In Monika's example below, she demonstrates the checking out of the child's object/activity of interest. This is followed by ongoing provision of encouragement to explore, to touch and to verbalise actions. Amy is six months old.

Excerpt from Monika's journal

When Amy touched the pinecone, she moved backward, then she arched her back by going from her knees to her toes. She moved forward, touched the cone and moved back again. Monika offered an 'escape' by pointing out other items "look there are some keys and brushes too", yet as Amy persisted with the cone, Monika accepted her choice by saying "you do like the pine cone". This expressed her uncertainty, yet at the same time her persistent disposition as she came back again and again, four times.

Analysis

Teacher offers alternatives; accepts the child's choice.

Identifies child's independent exploration, trust in self and others and confidence.

Supports the child through uncertainty.

Verbalises actions to reassure child.

Amy does not engage in eye-contact with Monika, but looks at Monika's hand as she moves the cone. When Monika touches the cone, Amy reaches out at the same time to touch it, showing her trust in Monika and in herself, that she capable to do the same. This gives Amy added security in knowing Monika is there, and approving or encouraging her exploration, she had a secure base.

Models actions to encourage child to mimic.

Co-construction of direction of activity.

Amy was talking all the time while exploring the cone, she was making different noises, sometimes very loud growling, or blowing, which sounded excited, Amy expressed her thoughts and opinion verbally.

Both Tane and Amy were supported in maintaining their enquiry about their self-selected areas of interest and pursuing related problem-solving activities beyond what they were

capable of without their teachers' support. These teachers utilised specific strategies for this co-construction, which are clear outcomes of their commitment to their understandings of *ABL* programme within their community of practice.

In the personal plane for teachers

Being a member of a self-sustaining team within this community of practice supports teachers' leadership

As we saw in Chapter Three, the pedagogical leadership of the Hoiho Manager and Assistant Manager are consistently acknowledged by team members as pivotal in their learning to be team members. They are also acknowledged for their knowledge about infants and toddlers, about the *ABL* programme and about their expectations of teacher behaviour within their philosophy of a community of practice. In the next excerpt Libby describes some of her journey from a new graduate to becoming the experienced supporter of a student teacher and occasional relieving assistant manager that she is today.

Excerpt from Libby's journal

For me I believe I have grown as a teacher in so many different ways; how I feel I have grown is what I have learnt from Raewyne and Olivia over the past three and half years. I came to the Hoiho section straight from teachers college so the *ABL* programme has been ingrained in me and is all I know of the care and education for infants and toddlers. In the early stages of my employment I had informal and formal discussions with Raewyne and Olivia just talking about how I was going.

The teacher I am today I feel reflects on the role modelling I have seen from Raewyne and Olivia. Raewyne and Olivia are so knowledgeable about the programme, which has only allowed me to become as passionate as I am.

As a team, we as individuals are all different so we all have different passions within the programme therefore we are all able to offer

What contributes to leadership

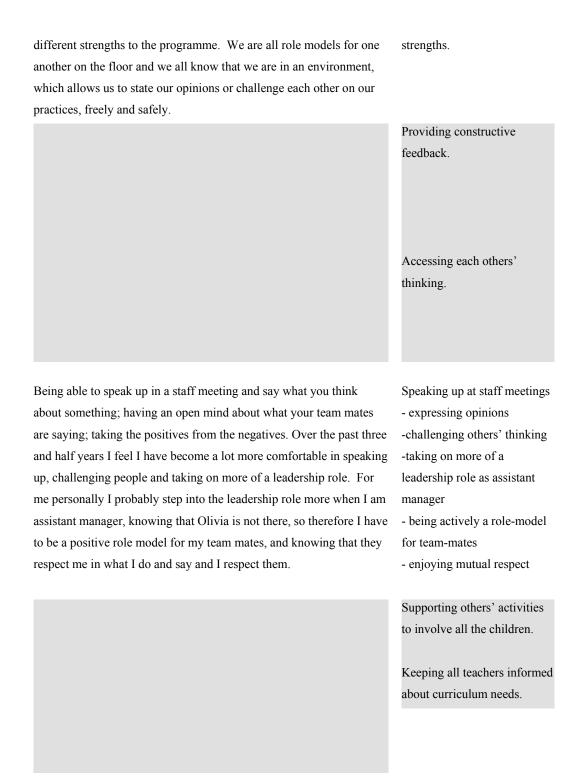
Support from the manager and assistant manager for teaching team.

Pedagogical leadership supports content understanding relevant for age group of children.

Pedagogical leadership supports programming and curriculum.

Valuing of the 'buddy' system for a new teacher.

Valuing other team members for their expertise and



The Research Sub-questions

Some evidence has been provided above of the main research question having been addressed in all three planes of activity. Here, each sub-question is briefly addressed, in order to exemplify the spiral reciprocity between the planes.

In the community/institutional plane

Q1:In what ways does leadership impact on a community of practice?

Distributed leadership in Hoiho is consistent with the Massey Child Care Centre's community of practice and has been shown to be pivotal to supporting children's enquiry. However, this form of leadership has not resulted in a flat leadership structure. It has been supported by the capacity-building actions of the formal leaders. In the words of the centre director:

The analogy of a picket fence was used at the beginning of discussions, when we were trying to visualize the difference between the more hierarchical structure that was in place and a distributed leadership model that we were aspiring to. Our perception at first was that as all staff stood side-by-side working together towards the same purpose the pickets were all the same size.

But it became apparent that formal leadership was a necessary component of a community of practice. The picket fence is still there, forming a strong foundation for improvement and change, but some of the pickets are now a little bit higher than others, reflecting the fact that somebody (or in the centre's case, a group of bodies) needs to lead the building and maintenance of the learning community so that other members are enabled to take an active part in it.

Q2: How are the centre's teaching and learning processes influenced by the implementation of the community of practice?

The Hoiho implementation of its *ABL* programme has been a conscious approach to ensuring that each child is secure in his or her own identity and that her or his home funds of knowledge are identified and extended. Teachers' maintenance of home-centre communication, through a variety of processes, have ensured that parents are as fully involved in their child's programme as they are able and choose to be. All processes are as consistent as possible with the agreed ideas negotiated for the community of practice of the whole centre and renegotiated in the section.

Q3:In what ways do self-sustaining teams impact on infants' and toddlers' dispositions to enquire?

The Hoiho self-sustaining team is a group outcome in the personal/interpersonal planes of the commitment to distributed leadership. Continuity of learning for children is maintained and children's emotional requirements and enquiry dispositions are placed firmly at the forefront of planning by everyone being informed and involved. The ability of teachers to develop and implement curricula for children is supported by the team's shared understandings.

In the interpersonal plane

Q1:In what ways does the centre's *ABL* programme impact on the within-centre transition processes for infants and toddlers?

Within the section programme, the commitment to *ABL* has led to the development of flexible routines that encourage each teacher to organise her breaks and other structural transitions around routines a child's immediately current emotional state, particular enquiry interests and current activity. The support of the buddy teacher makes this possible as one of the two teachers is almost always available to the children in their group.

Q2: What are the characteristics or elements of the teaching/learning relationship that influence/contribute to children developing a disposition to enquire in the infant and toddler section?

Hoiho key teachers strive to know the children in their group, their parents and their lifestyles very well; they can also access the expertise of the other teachers in the section where this would be supportive of a child's enquiry. The consistent relationships and understanding of each child's individual learning that are embedded in the buddy system and supported by the collaborative relationships and constant communication of the self-sustaining teams provide another element of support to the children's learning.

In the personal plane

Q1:What is the evidence that children's dispositions for enquiry have been enhanced by their teachers' commitment to their ABL programme within their community of practice?

A key aspect of their research was the Hoiho team's identifying evidence of a disposition for enquiry in children's resourcefulness, resilience and reciprocity; further, that children's enquiry is enhanced by strong feelings of security. Children's secure attachment to their key teacher has been demonstrated through the examples and learning stories in Chapter Four and in the earlier analysis in this chapter.

Q2: What happens for teachers when they work within a distributed leadership framework?

Teachers have expressed their feeling of empowerment, their ability and delight in being able to make decisions and be responsible for the wellbeing and learning programme for a specific group of children. The teachers were also very clear that the success of this responsibility lies in the support of their buddy teachers and of the whole team, an outcome of the section's commitment to distributed (and supported) leadership within their community of practice. The relationship with the formal leaders helped to maintain their ability to further their understanding of curriculum and teaching and learning.

Conclusion

The above excerpts from teachers' journals have provided a window into the Hoiho teaching team's understandings of their team philosophies of learning and teaching and the strategies they have employed to implement these philosophies. Teachers have valued the support of their designated leaders for themselves as teachers and for the teamwork that has maintained their equilibrium. The director and the management team provided the impetus for the initial vision, and the framework and structures that support it. The manager and assistant manager provided pedagogical leadership that supported both the team's content understanding, for the infants' and toddlers' curriculum and for the decision-making and programming. The buddy system was experienced as an immense influence for a new teacher as well as pivotal in the team's ongoing provision for children's enquiry into their own areas of interest.

Teachers' personal understandings of team membership included their valuing of other team members for their expertise and strengths. All teachers were prepared to provide constructive feedback on each others' actions; they readily accessed each others' thinking and strongly valued each others' support. Being a team member in Hoiho meant each person seeing herself as an emergent leader within a team of leaders. They articulated their own individual philosophy and areas of expertise and acknowledged the importance of learning from and about other teachers in order to effectively support each other.

Personal skills as a team member included speaking up at staff meetings, expressing opinions and challenging others' thinking while being prepared to be similarly challenged. There were opportunities for taking on more of a formal leadership role, perhaps relieving as assistant manager, and becoming more consciously a role model for team mates. Teachers enjoyed the mutual respect that characterised this team and they continually supported each others' activities with the children and kept each other informed about the specific curriculum needs of individual children. Children's emotional requirements, especially for security and resilience, were acknowledged as central to their becoming competent and confident learners. Continuity of learning for children was maintained and enquiry dispositions were placed firmly at the forefront of planning. All teachers developed strategies of working with children to enhance their enquiry, especially in identified areas of specific interest to the children.

Educational leadership has formed the bridge between the community of practice and the teachers' work. Formal leadership in this context has consisted in part of series of capacity-building actions, which included the initiation of a deliberate, purposeful series of workshops and teacher-only days where philosophy (both managerial and pedagogic) and what it means for practice were discussed and agreed on. These ideas have been revisited regularly and often revised. This agreed leadership framework, plus the development of an organisational culture that supports emergent leadership, has engendered a climate of trust. Teachers work collaboratively, within their buddy pairs and within the self-sustaining team, to develop ways of working with the children that support developing sense of security, their learning and their disposition to enquire.

Chapter Six

Toddlers' enquiry: Leadership and relationships supporting children's disposition to enquire during within-centre transition

Introduction

Evidence supports the importance of children's experiences in their early years as

critical determinants of future progress and attainment educationally, economically and as a member of their social community. Young children, from birth, are living in an unpredictable world where change and discontinuity may be all they can be sure of, and in which the transitions they are having to make are numerous (Fabian & Dunlop, 2002, p.xii).

High quality education and care includes provision for children to learn that they are competent and powerful agents in their own learning, yet the organisational structure of an early childhood centre where there are within-centre transitions can mitigate against the continuity of this learning. Because of discontinuities of relationships, physical space, programmes and routines, transitions can be traumatic, not only for the children but also for their parents and for the teachers.

Fabian and Dunlop (2002) define transition in educational settings as denoting a change of context and/or process:

the process of change that is experienced when children (and their families) move from one setting to another ... to when the child is more fully established as a member of the new setting. It is usually a time of intense and accelerated development demands that are socially regulated (p. 3).

How transitions are managed in a centre is therefore a key indicator of the quality of experiences for all participants.

The research question for this part of the action research, framed in relation to the children's disposition to enquire was:

In what ways does the section's Attachment Based Learning programme impact on the transition process for infants and toddlers?

The transition studied in this chapter is that of two year olds moving from the Hoiho Section, to Kiwi Section, one of two two-to-five year old sections within Massey Child Care Centre.

The strength of attachments between children and their key teachers, and between the key teacher and the parents in the Hoiho Section, has been established in previous chapters in this report. However, Cryer et al (2005) found that the higher the quality of relationships and the learning programme in the pre-transition centre, the harder it can be for the child and parents to transition, regardless of the quality of the post-transition centre. The research team's task was therefore to generate data on what happened for two transitioning children and their parents as their Hoiho programme relationships were severed and new ones developed in the Kiwi Section.

The Hoiho team identified that their ways of working with children, with parents and especially with each other, were facilitated by the centre's commitment to distributed leadership, as detailed in Chapter Three. Hoiho's research also provided indications (in Chapter Four) that the security of teacher/parent/child relationships were central to children's enquiry as manifested in their resilience, reciprocity and resourcefulness. The implication from this is that a child engaged in authentic enquiry over time is evidence in itself that he or she is secure in relationships and in the environment.

Kiwi Section's Community of Enquiry (COE) programme had much in common with Hoiho's *ABL* programme, as would be expected when both sections operate under the centre's Community of Learning philosophy. For the Kiwi teachers, knowing and continually extending each child's enquiry interests, established while in Hoiho, was central to the development of new attachments and therefore to a smooth transition to the new section:

The over twos sections operate the Community of Enquiry (COE) programme building on the philosophical underpinnings of the *ABL* programme. The image of the child, as an agent in their own learning; competent in their abilities, thinking, perspectives and desires, is inherent in the COE programme. How we view the child clearly establishes the role and pedagogy of the teacher. The COE programme provides opportunities for children to actively engage in investigative learning endeavours and fosters children's dispositions to enquire (Massey Child Care Centre Inc., 2006, p.1).

The expectation of a successful transition, then, was that the carefully fostered new teacher/child and teacher/parent relationships would maintain and extend each child's

identified enquiry interests in the new environment and that this would be supported by the Kiwi teachers' commitment to distributed leadership in their self sustaining team, as expressed in their statement of their philosophy

Self sustaining teams maximize the skills and talents of all team members, requiring teachers to work cohesively for the best interests of children and their families. Rosters, responsibilities, meal breaks and non-contact times are flexible. They are negotiated and coordinated by the team in order to effectively implement the programme (Massey Child Care Centre Inc., 2006, p.3).

Two children (Rosie and Tane) and their families were the focus of this part of the action research. Their transitions will be described and analysed in this chapter. Sources of data for analysis included

- Excerpts from the two children's portfolios of learning generated during their pretransition time in the Hoiho Section and then during their post-transition time in Kiwi. These portfolios included direct observation and a photographic record of children's activities and interactions accompanied by their key teachers' analyses.
- The transition notebook maintained for each child. This was implemented as a threeway communication tool between the key teachers in the pre- and in the posttransition centres and the parents.
- Transcripts of interviews between one of the research associates and the two children's parents and their key teachers and managers in both sections.

Two transitions

Below are excerpts from Rosie's and Tane's portfolios of learning in both sections and from interviews held with their parents and with their key teachers and managers in both sections.

Rosie

Date of birth: 26th December 2003

Rosie first started childcare in 2004, in Hoiho, at 4 months of age. Due to staff changes, Heather became Rosie's key teacher in November that year, with Libby as her buddy teacher. Rosie and Tane were due to transition together; however Rosie remained in Hoiho to maintain this as a stable environment for her as her parents separated at this time. Rosie and her two siblings now live week about with each parent.

	Rosie's enquiry interests	Signposts of enquiry, markers of
	(short excerpts only)	security, resourcefulness, resilience
Pre-	Mural paintings using various tools	"Delightful social interactions".
transition,	- applies paint including covering	A socially thoughtful child who uses
in Hoiho	her feet (30.3.05).	her intellect in a variety of social
(under	Uses the obstacle course and crawls	contexts in a pro-social, cooperative
twos	across the plank masterfully. Works	manner; shows concern and empathy
section)	contentedly with the dolls for	for other children eg a child was having
,	considerable periods of time, taking	an "off" moment, really didn't know
	the baby in and out of the cot,	what she wanted, standing crying by the
	walking round the centre with her	door. Rosie moved to stand in front of
	then back to the bed, covering and	her, crouched down and stared right into
	uncovering with blankets.	her face, held out her hands palms face
	Ambidextrous. Loves sand and	up and gestured her head from side to
	water – sloppy wet mixtures used	side as if to say "what is the matter, I'm
	with spade or container or digger to	sorry I can't help you but I am here
	fill, dig, stir, sometimes taste.	for you if that is of any comfort'.
	Spends a lot of time with	
	playdough, exploring texture,	Tentative in any new situation, such as
	manipulating, rolling, poking,	visiting the car-park or Kiwi Section;
	squashing, pulling segments off and	needs to be involved in discussion of
	placing on container; very keen on	every stage of a new process or route, in
	mastering tools to cut, roll, flatten,	which case she becomes a peer leader.
	press, squeeze out shapes.	
	Explores and enquires through her	
	senses, from soles of feet, hands to	
	whole body. Loves dolls, mad	
	about shoes, socks, clothes. Loves	
	pretty materials, sparkly, soft	
	textures. Loves jewellery and	
	beading. Wraps herself in multiple	
	layers. Wraps herself and her art in	
	scarves, using sparkling materials.	

During	The whole tactile thing did not get	Rosie wasn't too bad probably a bit	
transition	emphasised so much in transition;	intimidated going from being big kid in	
from	now it's progressing her art	a small pool to a small kid in a big pool	
Hoiho to	(mother).	(mother).	
Kiwi	Mother and Hoiho key teachers'	Laughs and giggles with another child	
	ongoing excitement in Rosie's	who transitioned with her (the only time	
	artistic achievements supported	I see her doing this – key teacher).	
	Rosie's interest in jewellery-		
	making in Kiwi.		
Post-	Border – layering and framing. She	Persistence of interest enquiry over	
transition,	still has that thing about colouring	time. Approaches a challenge with	
in Kiwi	and layering and wrapping.	curiosity and confidence, so long as it is	
(over twos	Everything she does she's got	in a familiar environment.	
section)	layers; her bed, herself and on	Works to solve problems and towards	
	herself layers with blankets; riding	mastery.	
	in the back of the trolley she'll have	Demonstrates a creative imagination.	
	a blanket over her. Related to	Shared endeavours with peers, though is	
	schema theory: enveloping.	able to protect her own work when	
		necessary. Takes the leadership role at	
	Wraps herself in saris.	times and also explores independently.	
		Demonstrates initiative, expectations of	
	A new complexity with her learning	success from her persistence and social	
	interests being transformed into	competence.	
	new activities. Project work makes	She is a problem-seeker and solver.	
	connections between interests and	The centre made calendars for parents;	
	art work - two butterfly paintings	Rosie's was one of her in a sari.	
	from a chart of butterfly pictures.		
Centre-	Family consistently reports home interests to teachers, then extends centre		
home links	interests in home and community eg Rosie will have received a beautiful sari		
	made by her mother for Christmas.		
E' (1	Figure 61. Pasia's anguiry interests pra-transition during transition and post		

Figure 6.1: Rosie's enquiry interests pre-transition, during transition and post-transition

The Kiwi Manager identified Rosie's ways of participating in the over-twos section that were different from her participation in art activities when in Hoiho:

The buddy teacher would feed back to the staff team and to the rest of Kiwi team what Rosie was interested in. We had some sparkly dress-ups and another teacher made some costumes that she loved and it helped her in the early stages. Heather [in Hoiho] talked about her wanting to be beautiful, loving colours and layers; we [in Kiwi] have noticed [this], but we have also noticed the schema, the complexity of enveloping and enclosing; Heather noticed tactile interests. Rosie is now exploring through lots of facets – eg rainbows. She is able to layer; in blocks, she could layer colours over top of blocks; in play dough layers of colours. She is still tactile but is starting to explore using schema to understand shape and sorting and number, volume and classification. We are making calendars for parents and Rosie's will be one with a sari (Kiwi Manager).

Maintaining continuity of her interest in participating in creative activity was clearly important for Rosie's identity in the over-twos section, as was the teachers' awareness of her transformation in participating because of her new environment. Teachers here noticed different aspects of her learning and consciously extended her thinking in the domain areas of "shape and sorting and number, volume and classification" and in the new complexity of thinking evident in her repeat drawing of a butterfly. Rosie exhibited considerable resilience in her determination to continue to explore her interest in layering.

Tane

Date of birth: 04.02.04. He was 9 months old when he first came full time, in October 2004. His key teacher in the Hoiho Section was Libby. Here are some excerpts from his portfolio.

	Tane's Enquiry interests	Signposts of enquiry, markers of
	(small samples of observations only)	security, resourcefulness, resilience and reciprocity
Pre-	June 04 to July 06: gross motor –	Attachment to C. (only explored back in
transition	riding bikes to finer motor skills of	Hoiho). Seeking out and using secure
	pushing small vehicles. Showed	base across the distance from top of
In Hoiho	interest in Kea's train set -	slide; Enjoying company of key teacher.
	inspected pieces of track in box, but	Independent exploration.
	only after return to Hoiho. Strong	Using slide as a ramp for train;
	interest in ramps, bikes and	determined to master use of bike pedals
	movement.	(26.9.05).
	26.9.05: interested in water – jumps	"Resilient to distractions of other
	in puddles then rides his bike	children while focussed."
	through; also in language, music	Joint attention: sliding ice down ramp
	and social interactions.	to explore friction.

		Imitating language; engaging with other	
		children, taking leadership role with	
		vehicles.	
During	Maintains interest in cars, transport,	Uses routines in arrival as security;	
transition	movement; also enjoys scissors,	interacts with T, who transitioned with	
from	cutting and talking about	him.	
Hoiho to	temperature. Explores new access	Persisted with cutting with scissors;	
Kiwi	to food, to bathroom taps and new	revisited frequently to achieve mastery.	
	equipment.		
Post-	Imitating then initiating drawings	Demonstrating all the markers of	
transition	31.5.06.	security, resourcefulness, resilience and	
	Focus on circles, with language	reciprocity through confidence in	
In Kiwi	"Tane circle round and round"	himself, in interaction with other	
	9.6.06.	children and with adults.	
	Drawing of "a motor bike with 2	Actively seeks information; readily	
	wheels"; Transport project -	expresses an opinion or idea; engages	
	4.9.06: Airport visit.	others in his enquiry to solve problems.	
		Demonstrates curiosity and	
	NEX rollercoaster- called it a train	inventiveness in his chosen areas of	
	track. 3.11.06: Section trip (with	exploration - using his 'wits'. Gives and	
	Keas) on bus to A&P show – lots of	takes when communicating with others,	
	vehicles and animals.	showing flexibility of thinking.	
Centre-	Family consistently reports home in	nterests to teachers, then extends centre	
home links	interests in home and community – eg. visits to the Esplanade train.		
	9.6.06: Doing lots of drawing while on holiday – revisiting learning, sharing		
	drawings from home at centre (clustering of different patterns, continuous		
	rotations with circles; straight lines; dots; zig zags). Drawing around his new		
	car (at home and in the centre). Provided his first named drawing "fish" (from		
	Burger Buggy trip?); using pencil grip.		
	Teachers and parents in Hoiho use daily notebook to enhance communication		
	and portfolio to document Tane's learning.		

Figure 6.2: Tane's enquiry interests pre-during and post-transition

The transformation of participation model of learning asks how the learner's participation changes from one kind of participation in activity to another and how the activities in which they participate change because of the children's and others' participation. Since the transition from Hoiho to Kiwi involves children in working with older children (up to nearly five year olds), the teachers here (perhaps more consciously) tuned in to "learning areas" of knowledge. Here also the children had ongoing access to more sophisticated tools, such as scissors; Tane demonstrated the pincer grip of a pencil very soon after his transition to Kiwi and he rapidly progressed his drawing and cutting skills; exemplifying that transitions can be "a time of intense and accelerated development" (Fabian & Dunlop, 2002, p.3). While his interest in transport and trains continued, his transformation of participation was demonstrated in his new skills and areas of interest.

Three planes of activity

Consideration of transitions under a sociocultural umbrella requires attention to three planes of activity: the institutional or community plane; the interpersonal plane and the personal plane (Rogoff, 1998). The ideas of these three planes being mutually constitutive of each other and of being able to background two planes while focusing on the foregrounded one, were again useful in the analysis of relationships and enquiry. The planes were also used to identify how children's new attachments with teachers and with other children, viewed through their dispositions to enquire, were supported during the period of transition from Hoiho to Kiwi. The Centre of Innovation research processes constantly changed lenses from one plane to the other, in order to address factors relevant to their transition activity in each.

This section will first consider the centre's underpinning philosophies, structures and routines (in the community plane), followed by presenting data on how these are enacted in the interactions between the participants (in the interpersonal plane); evidence is then provided on what happens for the participants (in the personal plane). Finally, the changes that the teams instigated during the period of the research are described.

The institutional, or community plane

Each of the four Massey Child Care Centre sections subscribes to, collectively and separately, their *communities of learning*, within which each section has developed its unique community of practice. Even though the Hoiho and Kiwi Sections belong to the same community of learning: the Massey Child Care Centre, their model of distributed leadership and their perspective on learning, combined with the many structural differences between the two sections, have encouraged unique organisational cultures to develop. It is these differences that the teachers' reflections were able to make more explicit and therefore more available for debate and transformation in the transition processes.

Massey Child Care Centre's transition plan

Because of both their experiences in transitioning families, and their awareness of the research indicating that any transition can be traumatic and the younger the child the more likely it is that the transition could be difficult (Cryer et al, 2005), Massey Child Care Centre had a well developed and trialled transition policy. Their definition of transition was "the movement of children, families/whānau and staff within all areas of the Massey Child Care Centre environment and the wider community" (Massey Child Care Centre Policy Handbook, A6, 2005). The rationale for the development of their transition policy was "to enable an optimal transition for children, families/whānau and staff, that fosters familiarity with the environment, assists with the establishment of a sense of belonging, and provides the foundation for the development of secure relationships". Note the focus in this documentation on supporting children's and their families' "belonging" and "security"; these terms also feature in *Te Whāriki* and in Hoiho's stated philosophy of *ABL* and Kiwi's COE.

Decisions about which children would transition, when and to which over-two section was the responsibility of the Director, in consultation with the Section Managers. Centre factors considered included overall centre and section numbers of children and the current staffing situation in each. Wherever possible, children transitioned to their new centre with a peer friend or two. The Hoiho Section Manager consulted her teachers and they discussed the planned transition with the about-to-be-two year olds' parents. The preparedness of the child for entering the larger group of older children was considered, as were any crucial factors in the children's home lives.

Transitions of families from Hoiho to either Kiwi or Kea (the other over twos section) were carefully managed over a period of time. Visits between the centres of the child's key teachers, the children (both individually and in groups with their key teachers) and the parents were frequent, as were discussions between the key teachers and the parents. Wherever possible two or more children who knew each other well transitioned together into either Kiwi or Kea Sections.

Communities are maintained by communication between their members. How this occurs during the transition period is a key to continuity of learning and enquiry for the children. The key teachers in Kiwi and Hoiho were central in the transition processes. Hoiho teachers, who had developed close relationships with the children and families, were keen to transmit their knowledge of the children's interests and strengths to the Kiwi teachers, who were also keen to maintain these in the children's new setting.

The children's portfolios of their learning and interests (funds of knowledge) in centre and home while in Hoiho were shared between all participating in the transition, along with the multiple "stories" that had been recorded. Every effort was made to maintain continuity of experiences for the child and the family to enable a smooth transition, through the development of shared understandings of the child. A separate transition booklet was maintained throughout the transition period by key teachers in both sections; the parents also had opportunity to contribute to this ongoing record of their child's transition period. The child's identified strengths, interests and funds of knowledge were central to plans for ensuring that his/her enquiry interests were continually extended and the "enquiry markers and signposts" (see Figure 4.1) were used in the analysis of the documentation of these.

Factors in the community plane contributing to transitions

The community, or institutional plane, included factors such as:

- the centre's commitment to distributed leadership and self-sustaining teams;
- each section's negotiated philosophy of learning and teaching, expressed as their
 ABL programme in the infants and toddlers and COE in the over twos sections;
- centre layout and structures;
- groupings of children in four sections of two infants and toddlers and two over two year old children, which in effect leads directly to the need for transitions;
- groupings of teachers specialised in understanding the children's age group in each section and the key teacher and buddy team systems in Hoiho and in Kiwi; and

 different ages of children and different ratios of teachers to children in the under- and over-two year old sections.

While the first two items above, the practices of leadership and philosophies of learning and teaching, are continually evolving through professional critique, the four structural factors listed here are less likely to be frequently revisited. Programmes and staffing develop around these structures.

Differences between the Hoiho and the Kiwi sections occur in several areas:

- Section organisation, staffing ratios, group size, physical location and
- Planning and programming, including routines.

Section organisation, staffing ratios, group size and physical location

The group in Kiwi Section is constituted differently from that in Hoiho Section.

Hoiho: The section manager is responsible for twenty-nine children and six teachers, three groups each with two "buddy pair" key teachers. Staffing ratio does not exceed 1: 4 and group size in limited to twenty at any time.

Kiwi: The section manager is responsible for forty three children and 6.5 teachers (one teacher works 0.5 each week). Recently (partly in response to concerns about transition) groupings changed from three "cluster groups" of three teachers, to a similar system to Hoiho of a "buddy team" of key teachers responsible for a group of approximately fifteen children (including full- and part-timers). Staffing ratio does not exceed 1: 6. The increased ratio of teacher:child in the over-twos sections (from 1:4 to 1:6) is a direct outcome of differential government funding for these age groupings for early childhood services.

Teachers and parents were very aware that the two sections were different in many ways and both groups sought to explain the source of these differences, sometimes from the perspective of ratios and time. However, the underpinning philosophy also relates to the greater levels of independence and self-care that generally exist for children aged two to five years. One teacher commented:

Teacher-parent and teacher-child bonds develop in Hoiho because teachers and parents have the time to sit and talk – we are so busy in our section (Kiwi). It's not necessarily the ratios (that make the difference).

The Kiwi supervisor commented that the different ways in which the teachers were involved with the children (a lot of work at floor level with children who are not walking in the Hoiho Section) had meant that parents didn't feel justified in taking up the more mobile teachers' time in the Kiwi Centre. The parents and the teachers equated sitting on the floor with time to talk.

This teacher's comments about their "busyness" in the over-twos sections raised several key issues of transition, which resulted in critical reflection by the research team and some changes in the transition processes. Three of these issues were:

- Perceived discrepancies between the sections in teachers' workloads and therefore
 time available to spend with children and with parents. Teachers and parents made
 several comments related to these perceptions. Such comments indicated a lack of
 real appreciation across sections of the work of teachers of under two year olds
 compared with that of teachers of the over twos.
- Different ways of forming relationship bonds between teachers and parents in the two sections. While the forming of relationships in the over twos section is consistent with research, as discussed above, sometimes the teacher-parent bond formed in the under twos section remained the closest bond. Opportunities were fewer for teachers and parents to develop the close bonds that the parents developed with their babies' teachers. Older children do not have the same physical needs as babies do (nappies, special food etc) and therefore required less discussion about care and routines.
- The physical management of the transition. Most Hoiho parents parked on the side of the building nearest to this section. When their children were babies they had more supplies of clothes, nappies and food and sometimes heavy car-seats, to carry from their car to the section. Continuing to park the car in the same spot post-transition meant that parent and child needed to pass the Hoiho Section on the way to Kiwi, which was difficult for some families. The Kiwi manager commented:
- It's the little things that prepare parents for the change; eg start parking at the front (early in or even prior to transition) and talking about it to prepare children.

Planning and programming, including routines

There are more quiet pockets of time in the Hoiho Section day, when the great majority of children are asleep. This allows teachers opportunities to write in notebooks. Different

routines in Kiwi from Hoiho and the larger number of children in her group, mean that the key teacher cannot write in each child's booklet as often as she would like.

I can't do it [children's notebook entries] every day – I do try to do it twice a day lately; for Tane that would be twice a week (Kiwi key teacher).

As we have seen, teachers in each section may not understand each others' programmes and routines, since they have not usually experienced them and may not be as familiar with the special requirements of both age groups of children. They may also hold some misconceptions, such as that all the children in Hoiho are in bed at the same time:

We don't get time on the floor –we don't have all children in bed at the same time (teacher).

However, the Kiwi manager had this to say:

If families want to continue to use the notebook as a tool to talk with teachers about their child between home and centre, as they did in Hoiho, then we need to make that happen in Kiwi. I think this would be achievable. We have rest time; it might be better for teachers to be writing in children's home books rather than rubbing backs [of children who are resting].

Both sections subscribed to a project approach in extending children's enquiry interests. An advantage that the Kiwi manager saw in her section is that, because of the age of the children and their ready access to transport, they were able to organise trips outside the centre quickly:

For Tane we are developing a transport investigation – he is really interested in planes; he was not sure what the squares are on the plane (windows) were; he wanted to know "How does a plane fly?" We organised a trip to the airport; we are utilising resources in the community effectively to extend interests. One of our strengths is in being able to get children out into the community, using the burger buggy; or we catch a bus or use the Massey vans; next year we will use the vans each week. We have the staff to do this (Kiwi Manager).

In relation to her enquiry, Rosie's mother found that

The whole tactile thing did not get emphasised so much in transition; now its progressing her art. They got so excited about border – layering and framing. She still has that colouring and layering and wrapping. I bought really bright sticky tape that she wrapped round and round her body. She was not comfortable so she took it off and wrapped her teddy bear. She used to paint paper and then fold it over; now she puts her pictures in bags. The other day she got play dough covering the whole rim of the container with pancakes. I don't know whether this was new for Rosie or new for the teacher's noticing (Rosie's mother).

In discussing a possible source of uncertainty for parents in relation to the enquiry programme, the Kiwi manager commented:

I think that possibly in Kiwi more staff are involved in the identification of the interest – perhaps because attachment isn't so strong with the key teacher or because of our philosophy of learning or contextual knowledge and ability to analyse learning. We [in Kiwi] are developing the skills to use Reggio resources in the domain areas of art, creativity, maths, so that we are impacting on learning experiences. We do it

differently from Hoiho. We need a longer transition process to find the right time for transition.

The teachers in Kiwi all contributed to each child's portfolio, from their work together, often in the co-construction of project activities.

The interpersonal plane

The interpersonal plane consists of relationships and interactions between people. It is in this plane that the expectations for outcomes for all participants, as expressed in the personal plane, are put into practice.

As previously stated, research indicates that the higher the quality of relationships and the learning programme in the pre-transition centre, the harder it can be for the child and the parents to transition, regardless of the quality of the post-transition centre (Cryer et al, 2005). In Hoiho children's enquiry is encouraged within the complexity of strong relationships, both between each child and her/his key teachers and between all members of the teaching team, who model trust in each other and in their ability to notice, to recognise and to respond to children's cues and funds of knowledge. The Hoiho teachers build their relationships with the children on their philosophical foundation, which recognises "that when infants and toddlers receive consistency in caregiving from one or two adults they are more likely to form a secure attachment" (Massey Child Care Centre Inc., 2004, p.4); ... "this secure attachment to the child's teacher in child care is linked to increased peer play, greater empathy and independence, prosocial behaviour and a greater orientation to achievement, which in turn supports the child's exploration of the world" (Massey Child Care Centre Inc., 2004, p.i).

When the children transition into their centre the Kiwi Section teachers continue to build each child's links between home and centre and their security in the environment, with their peers and with the teachers: "the key person and the cluster team foster the development of reciprocal relationships between the family/whānau and centre. As a result children's learning is enhanced as knowledge and skills are transferred between the home and centre environments" (Massey Child Care Centre Inc., 2006, p.10). The maintenance of the child's particular enquiry interests across the transition to Kiwi had the potential to support the development of the new teacher-parent and teacher-child relationships, because of the necessity for all contributors to share understandings. Communication between the pre-transition and the post-transition key teachers of each child were central in these processes.

In the transition process, the child's home setting is likely to provide continuity of experiences, which will provide an anchor for the child during the transition period. The parents played a key role in preparing the child for the planned changes and life in the new centre, through engaging in discussions with the key teachers in both settings. However, for one of the case study children, there was some disruption in this continuity of home life and the Hoiho centre had been able to provide continuity during this period through keeping the child in that centre beyond her second birthday.

Teachers' communication with parents – parental expectations

Kiwi teachers contributed to the children's portfolios in a different system of responsibility from the Hoiho team. Any of the teachers in Kiwi might make a documented observation that becomes included in a child's portfolio, whereas in Hoiho, other teachers communicated aspects of any child's day to the key teacher, who maintained the child's portfolio. In addition, Hoiho teachers made an entry into each child's centre-home booklet every day of their attendance; parents had the opportunity to also write in this booklet each day. In Kiwi, an entry in this centre-home booklet was more likely to be made twice weekly. Teachers were aware that this can be difficult for parents.

I found one of the hardest things about the transition was the very close relationship we had with teachers in Hoiho. Kiwi teachers still have a group of children but not quite so much responsibility for them; Tane's key teacher might not be the one who knows most about what he's done that day. It's good that he has others to relate to and develops relationships with other adults (Tane's mother).

Parents did not spend the same amount of time settling their child in to Kiwi as they did in Hoiho. Although the teachers were able to manage the child's transition from section to section, the parents themselves had more of a problem transitioning because they did not need to spend the time in the new centre that they did in Hoiho when the child was a baby.

He was 8 months when he first came full time. In settling him in I spent time here (in Hoiho); a few half days in the couple of weeks leading up to attending full time. During transition to Kiwi he went down more than me; he went down for a few visits with Caryn and they got longer and longer (Tane's mother).

You wouldn't expect them be the same because of their age. In the weeks when she's with her dad, it's difficult if I spend time with her in Kiwi because she wants to come with me. She's obviously very well settled. I guess [with] our splitting it does depend a lot on the teacher. (Rosie's mother).

In summary, parents' transformation of participation in Kiwi as compared with their participation in Hoiho was a significant factor in their own "settling" in to the new section.

- Because parents spent less time in the new section they did not get to know the other children or the teachers to the same extent as they did for their babies.
- The children were more mobile in terms of their relationships with teachers, so it was appropriate that all the teachers in Kiwi contribute to the records of the children with whom they had worked. It might well be more difficult for a parent to find, or even be at the centre at the same time as, the teacher who spent the most time on a particular day with her/his child.
- In response to the greater volume of enquiry questions in the two to five year olds, teachers were more likely to focus on particular learning areas, such as science, or mathematics, when they extended interests. Teacher interest in particular learning areas was likely to provide another factor in drawing children to particular teachers.

Teachers and staffing structures

The employment conditions of one key teacher both contributed to and detracted from the teacher-child relationships and the teacher's ability to know the child and to plan well in extending their enquiry.

I knew Rosie through my son being in the same section; this gave me an opportunity to get to know Rosie and what she was doing four to six weeks prior to becoming her key teacher. All the children in Hoiho know me. A new child saw me and wanted to come in and look around (Kiwi key teacher).

However, Angela (Rosie's Kiwi buddy teacher) is only present in Kiwi 2.5 days in each week. Her hours (9 am to 3.30 pm) made it difficult for her to communicate with Rosie's parents at the beginning or end of the day. She formed relationships with Rosie and her parents but was not always able to share the knowledge she had about Rosie's interests, abilities and strengths with her parents.

A relationship can be getting quite strong then I don't come back till next Monday and have to start all over again. I keep back when new children are transitioning to give them space; let other teachers form relationships (Angela).

Rosie's key teacher was also absent for much of this transition period because of her son's illness.

I am sure the key teacher's frequent absences (because of her own child's illness) didn't help the transition; it bothered me that Rosie's transition was interrupted by the key teacher absences (even though these were unavoidable). Ultimately it's about being able to form those depths of relationships and knowledge of the children; absences make this more difficult. Also, Angela is part-time in Kiwi; a crystal ball could have changed things around [to provide better continuity for Rosie] but I have stepped in to add further support (Kiwi Manager).

The manager took on the key teacher role, supporting the transition process, forming a relationship with Rosie and her family and undertaking the documentation.

Children's illnesses also had a large impact on their experience of change.

On the first visit Tane was happy to stay with me, took my hand but still stayed close to Caryn - when he got sick he was not really engaging with me – talked with Caryn (only running on 80%). He had no time off; he was just not very well and that made it harder on all parties (Kiwi key teacher).

Especially when such unavoidable changes occurred, it became very important that all the teachers had been working closely as a team; as well as two buddies, the whole team knew all the children. The section manager worked closely with her team, where necessary supporting their understandings and their competence in maintaining children's portfolios; she "spent a lot of time with them helping them to see patterns".

The personal plane

The personal plane refers to what happens for all participants: the children, the teachers and the families, as a result of the beliefs and systems in place in the community plane and the interactions of the interpersonal planes. Smooth transition requires ongoing reflection on what actually transpires for individual children and their parents and how teachers can make continual improvements in their processes and practices. Children seem to change almost overnight when they move to another section. They change because they are in a different situation, with different people and different activities. The sociocultural term that describes such change is *transformation of participation* (Rogoff, 1998). This term refers here to both the transformation of participation for children in transition and the transformation of participation for the teaching teams as they reflect on their children's transitions, as well as for the parents of transitioning children. "A person develops through participation in an activity, changing to be involved in the situation at hand in ways that contribute both to the ongoing event and to the person's preparation for involvement in similar events" (Rogoff, 1998, p. 690).

Such ideas raised questions that were central to the transitions of child, parent and supporting teacher: how (or did) children's participation in enquiry about their authentic interest change across activities and across sections? How did the parents transform their participation from Hoiho to Kiwi? What were the key teachers' experiences in supporting the children and their parents during their transitions?

The children

Participation in a community shapes identity at the same time as community is shaped. This is true for the children and for the adults who participate in early childhood programmes. Carr's (2000) research in early childhood centres provided many examples of children verbally reinforcing their identities as learners and as people in their societies. Massey Child Care Centre's transition policies aim to support children's identities as they transform their participation as enquirers from their known culture in the Hoiho Section to their new one in the Kiwi Section.

Rosie has been identified (Fig 6.1) as a "socially thoughtful child" with empathy for others. She "is tentative in any new situation" while demonstrating skills in leadership of her peers and she is both highly creative and persistent in her investigations. Tane was a confident and independent explorer who engaged with other children and took a leadership role in activities in which he was confident, such as working with vehicles and topics related to transport; he was curious, inventive and flexible in his thinking (Fig 6.2). A major concern of the Kiwi key teachers was that they were able to support each child's sense of identity and agency in their new environment, which was in many ways quite different from that of their familiar Hoiho. Rosie's delayed transition was an example in the personal plane of consideration given to maintaining her sense of identity and security during what was a disruptive time for her in her family. Given the definition of enquiry as consisting of children's security (of relationships), resourcefulness, reciprocity and resilience a focus on enquiry interests was found to facilitate Kiwi teachers' understanding of each child and their interactions with their parents.

The Kiwi programme, geared for the older group of children, held different expectations from Hoiho:

His behaviour has changed since he has gone to Kiwi - his language, his speech improved when he moved because he was around children who were older. He learned colours and shapes quite quickly once he moved up there. One of the reasons his language improved is that they have to ask more; everything is not so structured and available as in Hoiho. If they want a certain activity or go to the toilet they have to ask. He is still interested in transport and he's developed other interests along the way. There are more organised activities, such as gym, dancing classes, music sessions – we dance at home (Tane's mother).

This is an excellent example of transformation of participation. Almost "overnight", Tane seemed to change his participation; because of the different environment, perhaps especially because of the age of his new peers, his demonstrations of learning became different (in terms of changed behaviour, such as improved language and verbalisation of colours and shapes).

The parents and the teachers

While their well-developed policies and processes guided the transitions, the reality of experiences for each child and family was dependent on the particular teachers and the teamwork across the two sections. Considerable coordination was involved in the organisation of transition: meetings between the two sets of key teachers, during which the Hoiho teachers shared their understandings of the child and family with the Kiwi teachers, both with and without the parents present; also the development of the transition booklet for each child. Clarity of their shared roles in the transition process between the two key teachers was a key aspect of the system's support for all participants and both teams were aware prior to this research that improvements could be made in this area. Good communication was important, as was an understanding of the different situations of relationships with the parents that the teachers in each section were in.

There were also issues about the Kiwi section understanding what happens in the Hoiho Section, and vice versa and the teams worked on solutions for this. One problem had been that there were difficulties in keeping track of the transition booklet, viewed by teachers and parents as an important tool in the transition:

The transition notebook is planned to be a joint undertaking between the two key teachers and the parent. Both teachers write each day of a visit. Issues around these notebooks include their moving freely between two key teachers — who owns it and takes responsibility for it. Often Kiwi starts it but there have been issues here; it is supposed to be a three-way partnership. We have talked about this at management level; the gaps between the programmes and how we can bridge those. The transition book should be part of the profile but it isn't here [in Tane's portfolio] (Kiwi Manager).

The Hoiho key teachers were in a quite different situation to the Kiwi key teachers. As discussed earlier in this chapter, on entry to Hoiho the children are usually babies and their parents spend considerable time settling them in. Because they were present in the centre with their babies for extended periods of time, the parents came to know the other children and the teachers quite well; they became familiar with the section's programme and routines and developed very close relationships especially with their child's key teacher, in keeping with Hoiho's commitment to their *ABL* programme. In contrast, on entry to Kiwi the parents spent less time in the section, because the child is older, more independent and presumably better able to cope. However, communication with parents remains as important for Kiwi teachers as for Hoiho:

We are constantly re-evaluating ways of communicating with parents. Currently we are looking at the possibility of using daily emails; we need to be able to whip together ways of quickly and effectively letting parents know what the investigation and aspects

we are exploring at the moment. We currently also use the whiteboard for this (Kiwi Manager).

Maintaining continuity of planning to extend the child's interests while in Hoiho may support the child in settling, as seemed to be the case for Rosie.

Consistency with the key teacher [is important]; it bothered me that Rosie's transition was interrupted by the key teacher absences, even though these were unavoidable. Ultimately it's about being able to form those depths of relationships and knowledge of the children; absences make this more difficult (Kiwi Manager).

Children may temporarily show a decline in their identified interests in Hoiho (Tane and trains) yet return to these interests when more settled (Tane's investigation trip to airport):

Tane's interests in Hoiho were identified as movements and vehicles, ramps and especially trains. When going through transition, during his first few visits to Kiwi we made sure we had trains out. (Kiwi key teacher) set up experiences around these but he was seeking other activities at that time. Maybe new relationships or new things triggered different interests. Early each day, often after he had just been dropped off, he frequently turned to art – drawing, scissors. After transition Caryn (Hoiho key teacher) said he had been interested in art but not the in-depth levels that we were seeing him engaged in, in Kiwi.

[In his art] he used continuous rotational patterning, so we planned an investigation to extend his involvement in this. He joined in when an adult was present; watching and listening then imitating on his own painting, handing over and celebrating what was happening. He quickly became more controlled and specific, then he moved to drawing circles. [His mother] did some great things extending these at home; she picked up on some of the examples from home and he copied these again in Kiwi. Drawing progressed into controlled, naming (Kiwi Manager).

Tuning into children's interests and funds of knowledge at home and in their centre of origin held potential for supporting the continuity of experiences for children in their new centre, and in the development of new teacher/child and teacher-parent relationships. Clear communication and shared understandings between all participants about the child's preferred activities and ways of relating with others and of interacting with materials and equipment eased the transition for the children, the teachers in both centres/sections and especially for the parents/whanau. As one key teacher stated:

The transition is a big step; the new section is noisy, bigger. It is a huge movement. These children are moving from being a big fish in a small bowl, now back to little fish. [Tane's mother] needed more of a transition. Tane's [funds of knowledge] and abiding interest in transport is still there but now in different ways. We've brought in a transport investigation. He went through a very creative drawing stage; kept drawing at home and [his mother] brought his pictures in. His mother started talking about them and that's when she settled. Tane now plays with cars and scissors – I see him using a schema for "small motor" work, picking up putting down, threading, concentration.

A major common point of discussion about each child for the key teacher and the parent was the child's current "signposts of enquiry" and markers of his or her developing security, resourcefulness, resilience and reciprocity. Knowing whether or not the child maintained an interest across transition, observing what the child was interested in and discussing this with the child's parent, provided evidence to the parent that the teachers knew their child and were really interested in what s/he thought about and how s/he went about doing things.

The maintenance of continuity of planning for the extension of children's particular funds of knowledge across the transition period, in Hoiho and Kiwi, included the cultural tools of: empowering language; the maintenance by each key teacher of their children's portfolios, of learning stories and other observations; planning to extend each child's interests and strengths; analysis of documentation utilising their enquiry markers; and their transition plans for each child and family. However, teachers and parents alike identified that difference between the sections necessitated improvements:

I think developing a stronger relationship with the new key teacher and extending those interests before she makes the final transition [are important]. It may have been of value for Heather and key teachers to sit down and talk about materials and how Rosie loves painting her body (Rosie's mother).

Tane's mother was clear that the transition for Tane had been smooth, in contrast to her own feelings:

Tane coped with the transition really well; it was me that found it hardest to move... He seemed to enjoy it right from the start during the visits... I found it hard having to question the teachers more to find out what he'd done during the day, not having the notebook every day and the photos every day; I used to write in the Hoiho book every night. They have a transition booklet that I could record in. I found that helpful because both teachers also recorded in it. In Kiwi they don't know what is happening at home; I had an idea from other parents it would be different but I still find it hard. Yes it would be a good idea to have a three way discussion with the two key teachers and myself – I was a little bit lost.

Changes as a result of the action research

As a result of their research with recently transitioned families, several improvements have been made in the transition processes.

More written information about the new section for parents: differences between the
under and over-twos and advantages of the encouragement of their ongoing enquiry
interests in the new environment, are now discussed. This includes newly identified
strategies that may support the change. A simple example is the suggestion that

- parents consider parking their cars on the Kiwi side of the building prior to transition. Greater familiarity with the new section will support an easier transition.
- Improved communication between the teachers and the parents will provide more information in identified differences between the two sections and what these mean for the children's and parents' experiences, especially in relation to the children's differing needs for attachment and autonomy. It would be useful for parents to know that all the teachers in Kiwi are likely to contribute to their child's portfolio and the value in this for their child's enquiry. Kiwi's emphasis on "learning areas in extending their child's funds of knowledge through projects" could also be explained.
- Improved understandings of the programme in each section and the child's and
 family's experiences in these. In particular, all teachers and parents would benefit
 from better understandings of the strengths of each section's programmes and the
 differences between them.
- Transition meetings on a centre basis. Transitioning families and key teachers in all sections now meet, share the children's portfolios and discuss their ongoing enquiry interests at home and at the centre. Visits are made to the relevant over-two section specifically to discuss the pending transitions. Literature on transition issues is made available and the quite different place that families are in during their second transition to a section compared with their first transition into the centre and the real difficulties that this can lead to are explored.
- A "buddy pair" system has been implemented in Kiwi partly in support of better continuity of learning for transitioning children and families. These teachers work collaboratively within a group of 10-15 children.

As identified by Dalli (2002), the transition of children into a centre (or section) is much more complex than a consideration of parent-child or teacher-child attachments. A smooth transition from one section of a centre to another requires careful attention to the families and to the teachers as well as to the children and even with the best policies and the best of plans and preparation, lessons can always be learned from specific sets of experiences.

Conclusion

The two children who were the focus of this research both transitioned with little difficulty, apart from being "a bit intimidated going from being big kid in a small pool to a small kid in a big pool". This confirmed the effectiveness of the centre's philosophies and practices supporting transitions from their *ABL* programmes for infants and toddlers to their COE

programmes for two to five year olds. However, it was found that for the parents, the security of the relationships developed in Hoiho was not so easily replicated in Kiwi.

The centre's commitment to relationships and distributed curriculum leadership were central not only to the transition for all participants but also to the children's enquiry and to negotiating improved transitions. The effective management of children's security, a critical factor in the enquiry process, was significant in their successful transitions. The documentation of children's enquiry interests and participation in activities in Hoiho was a key to the teachers' support of easy transition into Kiwi. Through professional reflection in their community of learning, the centre members have been able to improve the coherence of philosophy and policy (in the community plane); their strategies, practices and interactions (in the interpersonal plane); and the outcomes for children, parents and teachers (in the personal plane). This has led to a transformation of participation for adults, in support of children's transformation of participation in their new setting. Further, the mutually constitutive nature of the three planes has been demonstrated through the reflection on practices (in the *interpersonal plane*) that have led to changes in section structure (in the *institutional plane*) as well as planned improvements in transitions for individuals, parents, teachers and children, such as the implementation of the new "buddy teacher" system (in the *personal plane*).

The planned outcome of this cycle of the Centre of Innovation action research was originally expected to be a better understanding of how children's dispositions to enquire were maintained across the period of transition from the under twos to the two to five year old section. A result of the research was that this understanding is reversed. The children's enquiry interests during the transition period had the potential to ease the transition, for children, for parents and for teachers, in the context of an agreed community of practice philosophy, distributed leadership and secure relationships. A philosophy of pedagogical leadership (in the community plane) fostered secure relationships (in the interpersonal plane) and outcomes (in the personal plane) of critical reflection towards smooth transitions for all participants in a community of enquiry.

Chapter Seven

Disseminating the Innovation

Introduction

This chapter documents and discusses the dissemination activities that Massey Child Care Centre has been involved in over the past three years. The intent of this dissemination process was not just to disperse information about the COI, but also to share innovative practices in ways that would promote improvement and change in early childhood care and education centres, and in individual practice. The centre developed a dissemination strategy that focused on fostering professional development to enhance pedagogy and children's learning in relation to Massey Child Care Centre's educational leadership, community of practice and the Attachment Based Learning programme for infants and toddlers.

The Hoiho section approached the dissemination aspect of the COI research with commitment and enthusiasm, using a wide range of methods to share information with the wider community, nationally, regionally and locally. These methods included seminars, workshops, talks, publications and conference presentations, plus hosting visitors to the centre. The centre also worked alongside other centres, "buddying" them as they developed and designed their own curriculum. The Centre hosted over 150 visitors; teachers undertook nineteen presentations/workshops/seminars and six publications have been produced. A further indication of the interest in the research is in the amount of requests that have subsequently been made for further presentations and seminars.

Sharing information

Massey Child Care Centre's research stirred interest locally, nationally and internationally. Many local infant and toddlers teachers have visited the centre, some of them returning several times, to observe, discuss and consider the research, showing particular interest in the *ABL* programme. International interest focused on the educational leadership and community

of practice components of the research, although, as the section teachers have discovered in their journey, these components cannot really be separated from the children's programme. The innovative use of self-sustaining teams, underpinned by the distributed leadership concepts, has provoked thought and discussion from visitors and people at seminars. Visitors from Malaysia, Canada, Germany, Australia, Oman, Thailand and the United Kingdom were welcomed into the centre and provided opportunities not only to share the innovations but also to hear of other ideas, thoughts and practices relating to early childhood education, highlighting the bidirectional learning opportunities of the COI project.

The dissemination process provided valuable opportunities for the research team to develop presentation skills and practice their articulation of the programme. While the impact of the time spent with visitors was not formally evaluated, informal feedback received was positive regarding the value of the visits. The repeated visits, email discussions and phone discussions all indicate a long lasting interest in the innovation.

The section teachers have all commented on the empowering process of the COI research dissemination. The opportunity to talk with visitors and present at conferences and seminars provided them with opportunities to rethink their teaching, and address the philosophy underpinning it. Teachers were also able to model their excitement for learning to colleagues and peers and to share with others what they had recently learnt. Oral presentations further increased teachers' learning by providing them with the opportunities to practice and develop essential communication and presentation skills needed when working in the centre and the wider community. The dissemination programme changed the way teachers viewed themselves, promoting feelings of confidence and self-assurance.

The dissemination process built on the three components of capacity building (Hopkins & Jackson, 2003, see Chapter Three). Teachers' personal capacity was extended, and their knowledge and skills were reflected on and developed. Interpersonal capacity building was promoted, as the teaching team worked together sharing the goals and responsibility of dissemination, and took responsibility for each others' wellbeing and comfort, particularly during oral presentations. Organisational capacity was also built during dissemination, as teachers' belief in the programme was articulated alongside pedagogical and theoretical concepts of the innovations. Teachers report that they have become confident researchers, carrying out in-depth professional dialogue; happy to share their work but equally pleased to have their work challenged: they have remained open to new ideas and to other ways of thinking.

Buddy Centres

An avenue of dissemination identified as innovative and challenging was that of "buddying" another centre. This approach was intended to be a process where everybody involved would benefit from bidirectional learning opportunities. Research indicates the importance of involving the whole teaching team in any professional development programme for there to be major or long lasting change in outcomes for children (Bradley, Conner & Southworth, 1994, citied in Jordan, 2003; Mitchell & Cubey, 2003). It is recognized that pedagogical change and development occurs across time and through relationships.

Gisborne Community Early Education Centre and the Tui Section of Massey Child Care Centre, the other section for infants and toddlers, agreed to take part in this form of dissemination. Raewyne Bary was the facilitator for the Gisborne centre and Olivia Waugh (Assistant Manager) and Libby Martin (Senior Teacher) facilitated the Tui process. All members of both the centre's teaching teams (Gisborne and Tui) were involved in the dissemination process. This was seen as an approach that would enable the critical examination of teachers' own theory and practice, and develop a theoretical and research-based pedagogy within a community of practice framework within the centre or section. Time was spent outlining the philosophical and research background to the COI innovation, in distributed leadership and ABL. From this basis, Gisborne Centre and Tui Section were encouraged to develop their own philosophy, policy and systems. This process allowed teachers the opportunity to:

- investigate their education and care settings;
- work on identifying relevant pedagogical and systems-related issues; and
- set plans and goals directly related to their own context;

thus enabling the teachers' learning to be relevant, authentic and contextual. The aim of this form of dissemination was for the participants to incorporate their own aspirations, skills, knowledge and understanding into the process.

Gisborne Community Early Education Centre

This buddy centre dissemination programme involved reciprocal visits between the centres for preliminary discussions, observation, workshops, as well as ongoing communication by phone and email.

The programme was initiated from a meeting with the Gisborne Centre's manager at the Te Tari Puna Ora o Aotearoa/NZCA conference 2005. In October 2005 Bridget Anderson, the

Gisborne centre's senior infant and toddler teacher, spent the day at Massey Child Care Centre. The purpose of this initial visit was to discuss the buddy centre proposal, the expectations of both parties and how best to manage the process. Consideration was given to developing such things as a time line, financial agreement, agreement on roles and maintaining contact. Programme philosophies and expectations were shared and it became apparent that similar philosophies were held and that both centres were committed to a community of practice approach. Aims were developed for the Gisborne centre to:

- further develop their community of practice culture; and
- develop a responsive curriculum for infants and toddlers.

An agreement was written and signed to define the roles and responsibilities of both centres in the process.

Two workshops were held with the teachers at Gisborne. The first, in March 2006, gave Raewyne the opportunity to observe the programme, talk with teachers and develop the type of relationships necessary for this programme (bi-directional mentoring) to work effectively. Prior to the workshop individual information packs were developed and sent off to the Gisborne staff. These packs provided the teachers with information about the COI programme, mentoring processes and community of practice theory. During the workshop all teachers participated and had input to discussions, group work and final thoughts. Raewyne observed a growing excitement as the participants came to realise that she was not there to tell them "how to do it" but that the process was theirs and would be driven by them in relation to what they wanted to see happen in their environment. A record of the discussion and additional readings were provided to the group for reflection and further discussion before the next workshop.

Raewyne facilitated the second workshop with the Gisborne teachers in July 2006. After analysing the information from the first workshop and after discussion with Bridget and Wendy Ure (Centre Manager) the focus for this workshop was the theory of learning and teaching in relation to the Gisborne centre's programme. At the end of this workshop Bridget considered that the Gisborne infant and toddler teachers were ready to start the development of their responsive curriculum for infants and toddlers.

Bridget Anderson and Fleur Bolton (senior teacher over twos) visited Massey Child Care Centre for the day in September 2006. Bridget was able to spend some time in discussion with Raewyne and Olivia about writing a programme for infants and toddlers. This programme would include their community philosophy, and teacher practices in relation to their understanding of infants' and toddlers' learning and development. Fleur spent time with

Karen Laird (Manager of the Kea Section) discussing the Community of Enquiry programme for young children.

Outcome

The dissemination process offered Gisborne the opportunity to theorise their practice, and explore values and beliefs, both their own and those of their community. There were also opportunities to explore alternative practice, which has promoted teachers' shared understandings to a deeper level. This process of collaborative learning recognised that all parties influence each other and it is during the collaborative discussions that the participants find the "best path" for them.

After the Gisborne leaders' visit to Massey Child Care Centre in September they decided to revisit their centre's philosophy and vision with their teams. To maintain the integrity of their community and philosophy, it was necessary to revisit their overarching philosophy before developing the programmes for their centre. Massey Child Care Centre did not expect a rewritten philosophy/programme to be completed within the two-year time frame. The outcome hoped for was that Gisborne Community Early Education Centre would be on a pathway of programme development using a framework for discussion that we had found successful.

In early discussions about the buddy centre concept it was made clear that the buddy centre process was not about Massey Child Care Centre showing the Gisborne centre what they were doing and then expecting them to 'copy' this programme. It was about sharing the processes that had been found successful as the teachers developed the Hoiho philosophy and programme. The journey has begun for Gisborne, with the direction and development in their hands. Feedback from the Gisborne centre has been very positive, with the centre manager stating that she feels "the teachers are now all paddling their waka in the same direction".

Tui Section of Massey Child Care Centre

Over a short period of time four out of seven teachers in the Tui Section resigned, including both the manager and assistant manager. This resulted in this section struggling to form a cohesive team underpinned by a sound understanding and knowledge of the community of practice structure practiced in the centre and the *ABL* programme. Hina Thompson. the new

manager, after observing the progress of the Gisborne dissemination, indicated an interest and willingness for the Tui section to be part of the "buddy centre" programme.

In February 2006 the senior staff teams in the Tui and Hoiho Sections began discussions regarding a buddy centre arrangement between the two sections. The aim was to disseminate the changes and improvements to the *ABL* programme that resulted from the research. Olivia Waugh and Libby Martin agreed to be the facilitators for this dissemination. A meeting was held on 3 March 2006 and a draft agreement was discussed.

The first Tui section workshop was held in May 2006. The focus for discussion was:

- the characteristics of infants and toddlers;
- the teachers' view of the child;
- the role of the teacher; and
- the impact of the environment on young children's lives.

Video clips of the Tui Section teachers working with the infants and toddlers proved to be a valuable tool for discussion and reflection on practice.

The video camera was a whole new experience for nearly everyone in the team, it took a lot of confidence and trust in our abilities for it to be captured on video as a video never lies!" (Tui teacher).

This willingness to critically reflect on practice, analyze research, and act on their evaluations helps teachers to remain in tune with their practices and up to date with current issues and trends.

The next workshop was held in August 2006. The community of practice concepts and theory, as well as self-sustaining team practices, were discussed. This discussion led to the teachers revisiting their understandings of self-sustaining teams and caused some more indepth reflection on practice. In October 2006 the team engaged in further workshops on self-sustaining teams. This resulted in some valuable discussion about the expectations and practices of buddy group teachers.

The relationships that the teachers had formed with the members of the Hoiho Section, at whole centre meetings where community of practice issues had been discussed, meant that there was a degree of trust between the teachers and the facilitators:

The great thing about being challenged by Olivia and Libby was that most of us felt safe and secure enough that we were not being targeted at any time, but pushed to extend our own thoughts and actions (Kelly, Tui Assistant Manager).

As a result of the dissemination process the teachers decided to develop a model or logo that would symbolise and reflect their philosophy that had been enhanced and developed through their discussion. A fern frond (koru) was decided on, representing new growth and development of their collaborative team and reflecting the core of the *ABL* programme, self-sustaining teams and the buddy teams. Hina commented:

As a new team we have developed some useful documents and are continuing to create new ones. We have also succeeded in creating shared visions for practice and much of the foundation of this rests with the content and process of the dissemination meetings (Hina, Tui Manager).

A major focus for the final dissemination meeting was infants' and toddlers' "enquiry", where the teachers used a series of video clips of the teachers working with the children as a tool for reflection. The intention was for teachers to gain a deeper understanding of what enquiry looked like for infants and toddlers in their everyday practice.

Outcome

The dissemination in the Tui section was reported to be a rewarding experience for all involved; there was critical reflection throughout. In relation to the improved programme, Hina commented:

When I look back on the year of meetings between the Hoiho senior staff and our transient Tui team I am convinced that this was an invaluable opportunity to examine and co-construct best practice markers for our daily work with infants and toddlers in this environment...

Through the skills of their [Hoiho Section's] experienced, knowledgeable team sharing their knowledge and views while taking us through carefully crafted exercises, we were enabled to reflect, share our views and deepen our understandings of our centre philosophy and practice ideals. (Hina, Tui Manager).

The dissemination has helped the teachers to change pedagogical practice, knowledge and beliefs and encouraged the teachers to generate and share their insights and theories about teaching with each other.

Both Olivia and Libby as the facilitators gained from the experience as well. They gained skills in working with a group and presenting ideas and theoretical material to the teachers in the Tui Section. They also gained a better appreciation of their work in the Hoiho Section. Libby said:

Being a part of the Tui dissemination has made me reflect more on how we work as a team and how far we have come since I first started in the Hoiho section. As a team we have learnt to appreciate each other's views and opinions and accept each other and

how we do things within our section. The way we work as a team impacts a great deal on our programme and the children in our centre.

Conclusion

The dissemination processes in the COI journey have given the Hoiho teachers the opportunity to share with visitors and present at seminars. These methods of dissemination were of the more traditional form, including workshops, seminars or one time training sessions. This has been exciting and rewarding for the team members. However, evaluating visits and presentation has been difficult, due to the number, frequency and short duration of many visitors and presentations. Formal evaluation was difficult as we did not include any feedback forms or follow up contacts. There has, however, been informal discussion from participants and visitors that show that the experience has provoked thought and challenged thinking. There have been several return visits and centres have made contact with us to assist or support them in their journey towards developing and implementing more effective programmes for infants and toddlers. Most questions, requests and discussions have been around the *ABL* programme, buddy groups and the self-sustaining team systems.

The buddy centre dissemination process, which falls outside the more traditional methods of dissemination, allowed teachers (both from Hoiho and the buddy centres) to explore and extend their understanding and beliefs in relation to pedagogy for infants and toddlers and leadership. This process was in line with the characteristics of effective professional development linked to enhanced pedagogy and children's learning as outlined in Mitchell & Cubey (2003). Their Best Evidence Synthesis found that the characteristics of such professional development included:

- incorporating the participants' own aspirations, skills, knowledge and understanding as a starting point;
- providing theoretical and content knowledge;
- integrating content knowledge with pedagogical knowledge;
- engaging in investigating pedagogy within their own early childhood settings;
- enabling participants to investigate and challenge assumptions and extend their thinking; and
- helping participants to gain a greater awareness and insight into themselves, and a stronger appreciation of the power of their role as educators (pp 5-7).

This process carried out with the Tui Section and the Gisborne Centre presented opportunities for natural, authentic learning and real change to go hand in hand. The facilitators viewed the dissemination process as being an ongoing and integral part of the teachers' professional lives. The intention was to engage the teachers as active participants in reflections that related directly to their day-to-day work.

Massey Child Care Centre's community of practice philosophy was very apparent in the buddy centre dissemination whereby:

- children, families/whanau, staff and management are all included;
- priority is given to ensuring that all members share and participate;
- critical reflection on practice is expected;
- all members of the learning community are encouraged to question and challenge processes and practices;
- ongoing educational research is expected; and
- in-depth regular professional dialogue is carried out by all members of the learning community.

The process and experiences that make for effective change to occur have required skilled, knowledgeable and critically aware facilitators. This facilitation also requires the development of a "safe place" for teachers to challenge each other and to be challenged. Time was seen as a key factor in effective facilitation: a prolonged time frame (at least a year) allowed for the development of strong reciprocal, responsive, respectful relationships between facilitators and teachers. It was through the development of these relationships that the "safe place" for teachers to grow and flourish was promoted.

This process created a dynamic learning partnership, which was valuable to all involved.

"Nau te rourou, naku te rourou, ka ora to iwi"
With your food basket and my food basket, the iwi will be satisfied/replenished.

Chapter Eight

Our Research Story

By the end of the three year programme of intensive work together, Hoiho's research group had developed many shared understandings of research and of the teachers' leadership work in supporting enquiry with infants and toddlers within their community of practice. This chapter investigates the effect that the research processes, including working with the research associates, had on the work of the teacher researchers. It then revisits the principal findings from the research, and draws some conclusions.

The research process

Establishing formal agreements

The Massey Child Care team selected two research associates, Dr Barbara Jordan and Cushla Scrivens. They were people that the director and the manager knew, and who they expected would be compatible with their team philosophies; they were also experienced in collaborative work with early childhood teams. Each had a different field of expertise: leadership (Cushla) and children's learning (Barbara). It was anticipated that they would be able to guide the teacher researchers through the processes of research, including increasing the team's understanding of the action research process and deepening the theoretical understandings of the innovations and of the disposition to enquire which was the focus of the research question.

Several formal processes were set in place in support of the maintenance of the research and of these relationships. The Ministry of Education's provision of a separate contract budget for the COI and the research associates, a strategy for removing potential conflicts over finances, ensured that the focus was on working together on research and dissemination. A relationship agreement developed in the Round One COI group was offered for each new COI to adapt for their own team and a new research agreement was developed from this. The agreement that the research associates and the teacher researchers would all work transparently, with all

presentations and publications jointly owned by all participants, set the scene for cooperation. In the words of one research associate:

I continually returned to the relationship agreement to check our early hopes for our work together and that I was not either overstepping my brief or expecting too much of the teacher-researchers. I have enjoyed the open discussions and our debates and mutual challenges. I have seen members of the team really step up, in their writing, their reflections and their dissemination presentations.

Having to gain approval from MUHEC (Massey University Human Ethics Committee) for the research was a large influence on clarifying exactly how and when the data would be generated, and what would count as evidence. This was another document to which the team returned at times, to check their original intentions. The other document which guided the decision-making about "where to next" in the research process was the contract requirements with the Ministry of Education which set out the agreed research questions and a timetable for the three years' work.

Faith [director] played a major role in ensuring processes were followed. Among many other aspects of being a full member of the research team, she also kept meeting minutes, organised the Advisory Committee and parent meetings. Raewyne led her team, ensuring they were supported in their data generation and analysis. (Research Associate)

Teamwork and relationships

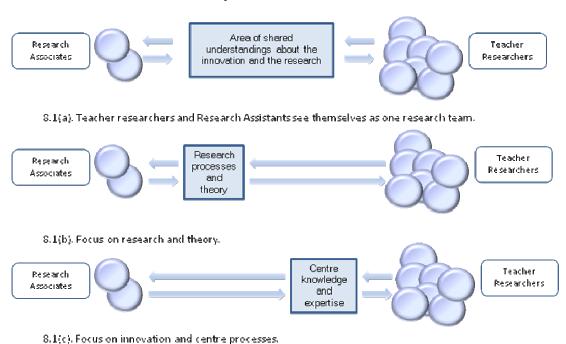


Figure 8.1: A model of intersubjectivity for researchers: Teachers and associates Adapted from Jordan, 2003

The above model represents the development of the intersubjectivity that was necessary in the formation of the research team. Fig 8.1(a) represents the teachers and the research associates contributing equally though differently, each from her own base of expertise. At times the focus was on the underpinning theory and research used in support of the work; at these times the research associates accepted a role in the research leadership (8.1(b)). However, the main work was the teachers' and consisted of the data they generated in their daily work, as represented in Fig 8.1(c). There were issues in ensuring that this work was carefully represented in the research. Initially these difficulties related to the relationship between the teacher researchers and the research associates.

Teamwork and the development of shared understandings require a level of maturity and knowledge of group processes, in order to foster the give-and-take required to challenge and accept each others' ideas without necessarily agreeing with them. The director and the manager had known the research associates in different roles: as university lecturers, and as members of local early childhood committees. While they (the director and manager) were confident that they could work together, the research associates were aware that the relationships would be different:

It was going to be a new experience. I'd never worked with a whole centre before. I had worked with and taught Raewyne and Faith and I thought that it would be OK (Research Associate).

This level of confidence and understanding did not extend to the teachers who knew the research associates less well. In the beginning, team members (research associates and teacher researchers) were relatively unsure of each other and how they might work through the multiple tasks that made up the research. While it "was an opportunity of a lifetime" (teacher) and "we looked forward to rubbing shoulders with knowledgeable people" (teacher), this was not without some trepidation for all members: "Scary, scary, scary!!! Sharing videos and the unknown at the beginning of the research" (teacher). One research associate commented:

It was obviously scary for the staff. It was pretty scary for me too as I was not an authority and really needed to read up on under twos. And having people think that you are being directive when you think you are just floating an idea takes a while to get a grip on. We had to work quite hard [on supporting the teachers in bringing their video data to the research group for analysis].

Both research associates struggled to ensure that their perceived power base as researchers and academics did not overwhelm the teacher researchers:

Getting the message across that the teachers were the researchers took some time. They wanted to "do it right" for us; they called us the researchers on their draft pamphlet ... I have struggled at times to extract their ideas on "where to from here?" I wanted them to

be doing the thinking ahead but they seemed just so busy they wanted us to lead – and then they came up with the goods so brilliantly (Research Associate).

The data in the teacher-researchers' videos was stunning; the analysis honest and comprehensive and they always tried to produce any further data we suggested. At the beginning we wished that they were not quite so attentive to our ideas, but they responded well to challenge and after a while did not hesitate to say if they thought we had got it wrong (Research Associate).

However, as the teachers became aware that the research associates did not totally understand the workings of the centre, the power base shifted: the teachers realised that they had more to offer the research. They became aware that the research associates had limited information about *ABL*; they were heartened when they were asked for copies of the policy documents, an indication that the research associates were not the 'experts' in all aspects of the research, as they had previously been viewed. A series of meetings, where videos and journal entries were presented to the whole research group, improved the confidence of the teacher researchers and ensured that they were able to challenge each other and the research associates. They went on to develop their own markers of enquiry (Fig 4.1) and their own diagram of how the section worked (cover).

By the end of the research, the teacher researchers and the research associates all valued the research and its influence on their practices:

We were delighted to get our innovation out nation wide and internationally!!! It has been so good for our professional development; [there has been] huge personal growth. Reflection has been empowering. Observing (ICT), has empowered our practice and we are now more accountable for our practice because we are more reflective. (Teacher)

I know a lot more about how centres actually work; or how this one works. It is good to see that their slant on distributed leadership is so pragmatic – the end reflection [in Chapter Three] showed that. They expect teachers to complement each other which is actually what the teamwork literature suggest is the best sort of team. Constraints – they had a long way to come, in terms of writing for research and I think they've done brilliantly. (Research Associate)

I wanted: to do real research that makes a difference for children, teachers and families; to have access to data in the real world and to write for presentations and publication ... I also wanted the luxury of collaborative research, with the strength of the group and relationships making decisions and forging the processes (Research Associate).

One teacher expressed the value she put on the team: "The team has grown; we are all very loyal to the COI programme". They believed that "if everyone backed us we could do it". The hard work and time commitments that the COI research demanded could not have been met without this commitment from every member of the team.

Finding time for research

Early childhood teaching teams are very busy people. The teachers' commitment to their *ABL* programme meant that taking time out from the children was an issue during the research. Although a reliever was provided, and they had extra time allowance for working on the COI data, the teachers expressed their concern that they needed to spend "so much time away from groups [of key children]". It was also sometimes not easy to make the time to undertake the work of the research. Sickness, time taken for preparation of presentations and visitors to the centre all took time and made the organisation of the buddy pairs and key teachers difficult.

For the research associates, the normal life of the centre took on new meaning. The research timetable simply had to work around unplanned events that at times caused long periods of delay in data generation and therefore in research meetings. Each winter seemed an especially bad period during which to conduct research, as both children and the teacher-researchers had bouts of illness, and teachers and children were absent. As a research associate said:

The centre life has to be maintained as a number one priority. At times the research was well in the background: as new babies were settled; when families had upsets or children were ill; as the team coped with absences (Caryn and Olivia); with illness and operations (Raewyne and Faith). We then just had to reset timetables and plans but to maintain the energy and often revitalise everyone – it felt as if my energy was low too at times.

The research associates learned to be flexible and to go with the flow. On reflection, this is akin to the ways in which the teachers are used to working with their infants and toddlers; it is the children's rhythms that always come first. Similarly any action research with education and care teachers must necessarily work with the rhythm of the team.

What we learned about the effects of research on our practice

The COI research has impacted on Hoiho teacher researchers in many ways. The teachers have gained an understanding of research and its role in challenging and extending their practices. In their own words, their research has had the following effects for them:

- We have learned through focused observation to be more aware of what the children are learning.
- We have put our teachers' voices into learning stories.
- We now also regularly access domain knowledge in support of children's interests.
- We have better connection with parents.
- We have new ICT skills and equipment.
- We have made links to our PALS (Profiles of Action Learning) and personal action research.

- It has boosted our accountability as professionals.
- We know we have contributed to the growth of early childhood education.
- It has opened doors to all sorts of networks; we are proud to be able to share our innovation.
- We have answered our questions:
 - We understand what we mean by enquiry for babies and toddlers.
 - We can see the links between leadership and what happens for children.

The teacher researchers have found the research "tremendously rewarding" and "get a real buzz from seeing our names out there [on publications and conference programmes]".

One research associate commented: "I have enjoyed seeing evidence of their in-depth reflections which are at more dialogic/critical level".

It seems to me that the team is much more articulate and concise about their innovation and why it is important in their community. Certainly the teachers are clearer about the leadership roles of Raewyne and Olivia, as are Raewyne and Olivia. The team is more knowledgeable about their leadership and about enquiry and why they are important.

[I appreciate] the team's willingness and acceptance of me, coming to terms with their terminology and challenging their beliefs and practices – we have all become more adept at hearing each other and at expressing our views. Meetings are a lot of fun; we laugh a lot.

The research findings

What we learned about leadership and enquiry

The principal finding was that the *sense of security* within the centre underpinned the children's enquiry (see Fig 5.1). The security that the teachers gained in working together within agreed frameworks (the community of enquiry, distributed leadership and the attachment based learning systems) enabled them in turn to support the children's sense of security and further their disposition to enquire. The research, especially the video analysis and the teachers' journals, identified the elements of enquiry in children as *reciprocity*, *responsiveness and resilience*, and established ways in which these elements could be maintained and supported. The research strengthened the understanding of the processes in all three planes of activity.

As stated previously, the three planes of activity formed a framework for the analysis of the research data. The idea of these three planes being mutually constitutive of each other, and of being able to background two planes while focusing on the foregrounded one, was useful in the analysis of both the teachers' and the infants' and toddlers' learning. The findings from the research are consequently reported on using the three planes of activity as a framework.

The organisational/community plane

- The agreed ideas for the community of practice, negotiated by the whole centre and renegotiated in the section, underpinned the work of the teachers.
- The community of practice, self-sustaining teams (distributed leadership) and attachment based learning (*ABL*) all contributed to supporting teachers' work with children and to the enhancement of enquiry.
- Formal leadership, especially the provision of professional development, capacity building and the development of a safe environment built the development of teachers' knowledge and practice about leadership, enquiry and teaching.

The interpersonal plane

- Being a member of a self-sustaining team within this community of practice supported teachers' leadership by strengthening relationships and encouraging teachers to take responsibility for curriculum decisionmaking.
- Within the section, continuity of learning for infants and toddlers was maintained.
 Their emotional requirements and enquiry dispositions were placed firmly at the
 forefront of curriculum planning with all teachers being informed and involved in
 centre organisation.
- The commitment to ABL (security) led to the development of flexible routines that
 encouraged teachers to organise breaks and other structural transitions around
 routines in ways that supported children's emotional states, enquiry interests and
 current activity.
- The use of the "buddy system" to enhance the key teacher system allowed teachers to form more intimate relationships with a group of often preverbal children and families/whānau. This understanding intensified their work with the children.

The personal plane for teachers

- All teachers developed further strategies for working with infants and toddlers to enhance their enquiry, especially in identified areas of specific interest to the children.
- Each teacher demonstrated a deeper understanding of the processes of leadership.
 This was shown in their ability to take responsibility, especially in curriculum (pedagogical) leadership.
- Each teacher demonstrated that their knowledge of the infants and toddlers in their group, their parents and their lifestyles helped them to support the children's enquiry.

The personal plane for infants and toddlers

- Infants' and toddlers' disposition to enquire was found to be embedded in their security. It was manifested in resourcefulness, resilience and reciprocity, in relation to the development of lasting interests and of relationships.
- Supporting infants' and toddlers' resilience for problem-solving was found to be a
 key to enquiry. Consistent, intimate long term relationships between teachers and
 children supported children's individual learning and resilience. These relationships
 were developed through the buddy system, where each child formed close
 relationships with two teachers, and were supported by the collaborative
 communication which took place amongst the whole team.
- When infants and toddlers were not feeling secure (for reasons to do with health, family circumstances or relationships) their enquiry behaviour diminished.
- Children's disposition to enquire, demonstrated through their resourcefulness, resilience and reciprocity, endured through the transition process to another section of the centre.
- The focus on children's enquiry smoothed and strengthened the transition process for them.

Conclusion

With reference to the teamwork in which early childhood teachers engage, David (1996) discusses the natural transition of early childhood teachers working in teams in centres, to these same staff members carrying out research in teams. "By seeing research as part of the process by which we understand our work better and are able to improve our practice, we are also making our professional lives far more challenging and rewarding" (David, 1996, p. 55). According to David, action research is the ideal process through which teachers are able to

come to see themselves as researchers, as they develop their skills of reflection on their programmes and practices. However, results from action research should be seen as specific to the environment in which the research took place. It is based on critical enquiry and in the form that it was used here aims to improve practice within the centre. The process of action research has been excellent in encouraging the centre to become more reflective about its current practices and what happens for infants and toddlers.

The teacher researchers, having been chosen as a Centre of Innovation, were initially understandably confident that their particular innovation was well-developed and saw their task was simply to describe to others how it had come about and what this meant for the children and families. However, the research process deepened their understanding of the processes that took place in the centre and enabled them to work more intensively with each other and with the children.

The links between leadership and children's behavour are very difficult to establish for both schools and early childhood services (Scrivens, 2004). For early childhood services, there is some evidence that the quality of leadership of directors and management teams, especially in developing a vision, initiating innovative pedagogical approaches based on research, and emphasising planning, assessment and record keeping, improves the programme for children and families (Bertram & Pascal, 2001). There is also a small amount of evidence that horizontal management styles, combined with a high level of teacher education and experience, encourage staff to work more closely together with each other and with parents (Lara, McCabe & Brooks-Gunn, 2000). In most research on teaching and learning however, links to leadership are tenuous, as leadership functions and elements are seldom included as a factor in research designs.

Researchers in schools have developed these links by investigating the ways in which leadership processes have changed teachers' performance, and then how teachers' work with children has enhanced their learning. In the case of learning dispositions, the focus of this study, this means strengthening the disposition so that it becomes a "habit of mind" (Carr, 2000). In this small scale study, the effects of a distributed leadership system within a community of practice framework on infants' and toddlers' security and on their disposition to enquire have been traced. Educational leadership, both formal and informal, formed the bridge between the community of practice and the teachers' work. Formal leadership in this context consisted in part of series of capacity-building actions, where teachers have become aware of the responsibility of leadership and have taken on leadership actions, especially in the field of curriculum leadership. The development of an organisational culture that

supported emergent leadership has engendered a climate of trust, where teachers have worked collaboratively within self-sustaining teams, to develop ways of working with the infants and toddlers that support their learning and their disposition to enquire. An indication of this is shown in the way that the children have shown a strengthened disposition to enquire which endured over time and into new situations.

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