

***Managing Learning journeys in Active Movement:
Developing theories of change in professional development and change***

***A thesis submitted in partial fulfilment of the
requirements for the degree
of
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Section 1

Glimpses of the learning journeys

Abstract

This thesis explores two problems: (1) how early childhood teachers can manage professional development and change in their own settings, and (2) how to create a thesis. Both facets of the thesis emerge from the professional development in Active Movement that the teachers and I co-constructed at our early childhood centre between April 2005 and June 2006.

This thesis sets out to test the main idea that having a theory of change for teachers' professional development can help teachers negotiate complex change and craft their own professional development solutions. It uses stories as a key facet of its methodology and presents stories of professional development and change related to five inter-weaving learning journeys. The learning journeys relate to (1) my learning journeys as a professional development coordinator and (2) as a researcher, (3) the overall learning journeys and (4) & (5) teachers' collective learning journeys to implement two different but related practices in Active Movement. The stories provide a range of professional development solutions and change at individual and collective levels from which different theories of change can be derived.

From these stories, I identify three theories of change as well as the complex changes we negotiated and the professional development solutions we crafted. In identifying the theories of change, the complex changes and the professional development solutions, this thesis supports the main idea and argues that teachers can develop a theory of change to manage professional development and change in their own settings.

This thesis argues that a theory of change is a set of strategies that address the local conditions. It suggests that the process of developing a theory of change can include articulating local conditions and creating strategies that support and guide the change in ways that address these local conditions. It also suggests that recognising what counts as local conditions and strategies can help teachers develop their own theories of change. In creating the strategies to support the change effort, it is

important to identify the purpose of the strategies, their underlying values and relationships, and the day-to-day realities that constrain the change effort. At the same time, it is important to identify how different strategies inter-relate to help us manage the tensions that can arise from these relationships.

This thesis argues that theories of change can include multiple and embedded theories of change, that we can create theories of change as plans or explanations of change or as dynamic theories of change that emerge from the inter-play between plans and explanations. This thesis also argues that there are different ways to articulate our theories of change and that there are limits to the extent to which we can or should articulate them. It also argues that the theories of change we create and use for our change efforts depend on the nature of the change. A theory of change that embodies the process of emergence is useful for managing professional development and change efforts that have a high degree of complexity and uncertainty and whose end goals are initially unknown. This thesis also suggests that creating the role of a professional development or change coordinator can help centres manage the knowledge used and created in the professional development or change effort in ways that benefit individuals, groups and the centre.

This thesis also argues that (1) the thesis investigation is my personal professional development and represents my learning journeys to create a thesis, (2) the thesis report constitutes a theory of change for the thesis investigation, and (3) the thesis is experimental in the way that it is reported.

This thesis proposes other possible investigations related to the idea of theories of change; (1) to develop an Active Movement community of practice within the wider early childhood sector, and (2) to investigate the role of theories of change in everyday teaching and learning. Finally, it uses the notion of value creation to suggest ways to create added value for the teachers and the Centre, for Sport and Recreation New Zealand and for myself.

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In the name of Allah Most Gracious, Most Merciful

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My son, Deen, for
teaching me what it
is to wonder and to
wander as we learn.

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“I wander’d lonely as a cloud”

I wander’d lonely as a cloud
That floats on high o’er vales and hill,
When all at once I saw a crowd,
A host of golden daffodils;
Beside the lake, beneath the trees,
Fluttering and dancing in the breeze.

Continuous as the stars that shine
And twinkle on the milky way,
They stretched in never-ending line
Along the margin of a bay:
Ten thousand saw I at a glance,
Tossing their heads in sprightly dance.

The waves beside them danced; but they
Out-did the sparkling waves in glee;
A poet could not but be gay,
In such a jocund company:
I gazed—and gazed—but little thought
What wealth the show to me had brought:

For oft, when on my couch I lie
In vacant or in pensive mood,
They flash upon that inward eye
Which is the bliss of solitude;
And then my heart with pleasure fills,
And dances with the daffodils

William Wordsworth, 1804.

(in Hurford, 1994, p. 314)

Interpretation:

Wordsworth’s poem expresses the special meaning the phrase ‘learning journeys’ holds for me. It suggests an inter-play between wandering and wondering. A wanderer wonders about his/her experiences and in his/her wonderings wanders to places yet unvisited.

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IMPORTANT NOTE

This thesis has explored more terrain than is required for a master's thesis, and it is beyond the scope of a master's thesis to reduce this work to the word limit prescribed. This feature of the thesis is discussed in Vantage Point E[5.2].

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Vantage point A

Introducing the learning journeys

Preview

In this vantage point, I introduce the learning journeys, explain the notions of 'learning journeys' and discuss the methodology of the learning journeys. I also explain how this thesis is organised and how to get around in the thesis report.

[1] Introduction

Active Movement/ Koringa Hihiko is a term created by Sport and Recreation New Zealand (SPARC) to describe young children's engagement in "quality physical movement experiences which develop and enhance the spiritual, emotional, social, cognitive and physiological growth of the child" (SPARC, 2004, p. 5).

Over the past several years, there has been growing interest in Active Movement within the New Zealand early childhood community. In 2004, SPARC launched a nationwide early childhood resource called "An Introduction to Active Movement: Koringa Hihiko", which is "designed to raise awareness about the importance of movement in the early years of life" (SPARC, 2004, p. 3). In 2005, SPARC created a series of Active Movement brochures which suggest fun ideas that parents can use with their children to promote Active Movement. These resources are distributed as part of SPARC's overall plan to develop active communities for the future. SPARC has also created the role of Active Movement advisers at regional sports councils across the country to promote Active Movement among teachers and parents.

I work at a preschool (henceforth referred to as the Centre) with an Active Movement programme that we call the gym programme. This gym programme is as an integral part of the Centre's programme. As a trained physical education teacher with experience in both primary and early childhood settings, I have contributed both to the development of the gym programme since its beginnings and to teachers' learning in, through and about Active Movement. Between April 2005 and June 2006, with the help of funding from SPARC, the teachers at my centre collaboratively developed and participated in professional development related to our gym programme. Our aim was to further co-construct and deepen

our knowledge in, through and about the teaching and learning of Active Movement in the context of the centre. At the same time, I decided to conduct research into the professional development. This thesis is a product of that research. In other words, *Managing Learning journeys in Active Movement: Developing theories of change in professional development and change* can be viewed as a thesis that emerged from a group of teachers' professional development in the field of Active Movement.

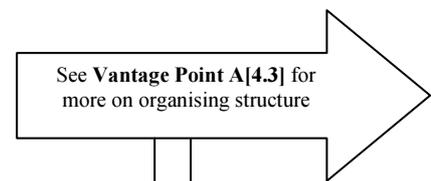
It is my hope that this thesis can contribute to the fields of professional development and change management. When viewed as a case study of professional development in Active Movement, its value can lie in the belief that “what becomes useful understanding is a full and thorough knowledge of the particular, recognizing it also in new and foreign contexts” (Stake, 2000, p. 22).

[2] Conceptions of the learning journeys

In this thesis, the term learning journeys is a complex notion with several meanings and functions. Firstly, it serves as a philosophical tool to illustrate the complex relationships between the professional development and the thesis.

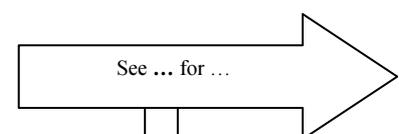
Secondly, it is used as an organising structure

for this thesis report, a function which I will discuss later in the chapter in the section indicated by the detour on the right.



Info-site A-1: What is a detour?

A detour points to a different part of the thesis where the reader can go to find out more about a particular term, concept, etc that is found in a different part of the thesis. The detour symbol is shown on the right.



Info-site A-2: What is an info-site?

An info-site is information for the reader to read when he/she encounters a term or concept. This information can be additional information that can illuminate the term or concept and can be referred to in other parts of the thesis.

[2.1] Learning journeys as a philosophical tool

I use the term learning journeys to refer to the professional development that the teachers and I participated in between April 2005 and June 2006. This includes my research into the professional development, which I view as part of my own learning journeys. I also use the term to refer to this thesis, which emerges from and, at the same time, contributes to the learning journeys as professional development. In other words, in this thesis, the term learning journeys can be used to describe the professional development or this thesis or both, and it is the context in which the term is used that determines its meaning. Info-site A-3 shows the enfolding and embedded nature of the learning journeys as professional development and as the thesis.

Info-site A-3: Diagrammatic representation of Learning journeys in Active Movement

A Möbius strip is a shape that has only one side and one edge. If we imagine that one side of the paper used to make the strip on the right represents the learning journeys as the thesis and the other represents the learning journeys as professional development, we will discover that they are actually one and the same side.



http://en.wikipedia.org/wiki/Image:M%C3%B6bius_strip.jpg#file

[2.2] Learning journeys as the thesis

The learning journeys as the thesis starts with the assumption that professional development is about change in teachers' knowledge or practice or both.

Furthermore, Fullan (1999) describes change as movements. In positing

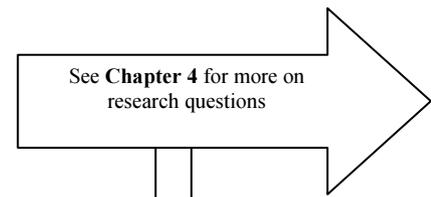
professional development as a learning journeys, I argue that professional

development involves movements in, through and about our practice in the gym

programme. These changes or movements are professional development solutions that can come in the form of tacit and explicit products and processes at individual, collective and organisational levels. This thesis focuses on the changes that have taken place over the course of the teachers' learning journeys between April 2005 and June 2006 as we lived our daily lives at the centre.

The research questions that I have used as the bases for developing this thesis are:

- What are teachers' movement stories when we participate in professional development in Active Movement?



- How do the movement stories change during the professional development?

As hinted in the research questions, I will use a storying and narrative approach to test the main idea that having a theory of change for our professional development can help us to negotiate complex change and craft our own professional development solutions. The stories are of five inter-weaving learning journeys: (1) my learning journeys to be a professional development coordinator; (2) the overall learning journeys; (3) the teachers' first collective learning journeys; (4) the teachers' second collective learning journeys; (5) my learning journeys to be a researcher. From these learning journeys, I identify the complex changes we negotiated, three theories of change and several professional development solutions.

Among the professional development solutions in the learning journeys is a liberating structure within whose boundaries the teachers were able to explore different professional development pathways individually and collectively and in

ways that created value for teachers, children and the centre. This liberating structure also served as the design of the research and thesis.

Info-site A-4: What is a liberating structure?

Davis, Sumara and Luce-Kaplar (2000) use the phrase liberating structure in teaching and learning to describe

“the balance between freedom and restraint that creates conditions for learning and creativity. The balance is a fine one since weakly defined boundaries and overly rigid expectations alike can adversely affect the possibilities for learning. But, when the limitations and boundaries for classroom activities are set, as they must be, teachers can consider how such constraints can liberate their students’ thinking, rather than limit it.” (p. 87)

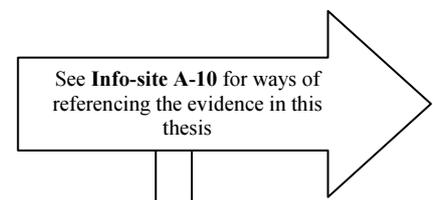


For example, I consider the gym room at my centre, as shown above, a liberating structure because the children are allowed to explore the equipment set up in any way they choose as long as they take turns, share and keep safe. There is freedom to take risks and be creative within the physical and social boundaries in place.

[3] Methodology of the learning journeys

Clough and Nutbrown (2002) assert that research is methodology, and in this thesis, I adopt their notion of methodology as “the painstaking justification we offer for the decisions we have made” (p. 28) which permeates the whole research and affects the “coherence and ... power to persuade others of our research” (p. 28). In order to increase the persuasiveness of this thesis, I have structured the thesis report in such a way as to demonstrate that “the whole research process is methodological” (p. 32). At the same time, I assert that the learning journeys methodology is perhaps best described as ‘messy’ and emergent.

My above assertion raises an interesting question. How can I demonstrate that a messy and emergent methodology can be methodological? I will do so by using Clough and Nutbrown's argument that research can be viewed as "a *search for form*" (p. 17). In this thesis, I give form to the learning journeys methodology by focusing on how I have created the liberating structure that is the learning journeys design, and how the teachers and I have used that liberating structure to live the learning journeys as professional development and thesis. This articulated form of the methodology begins with the articulation of the purposes and conception of the learning journeys in this chapter (Vantage point A[2]) and continues with the articulation of other inter-related design elements and processes. These elements and processes are summarised in Figure 5-1 and include:



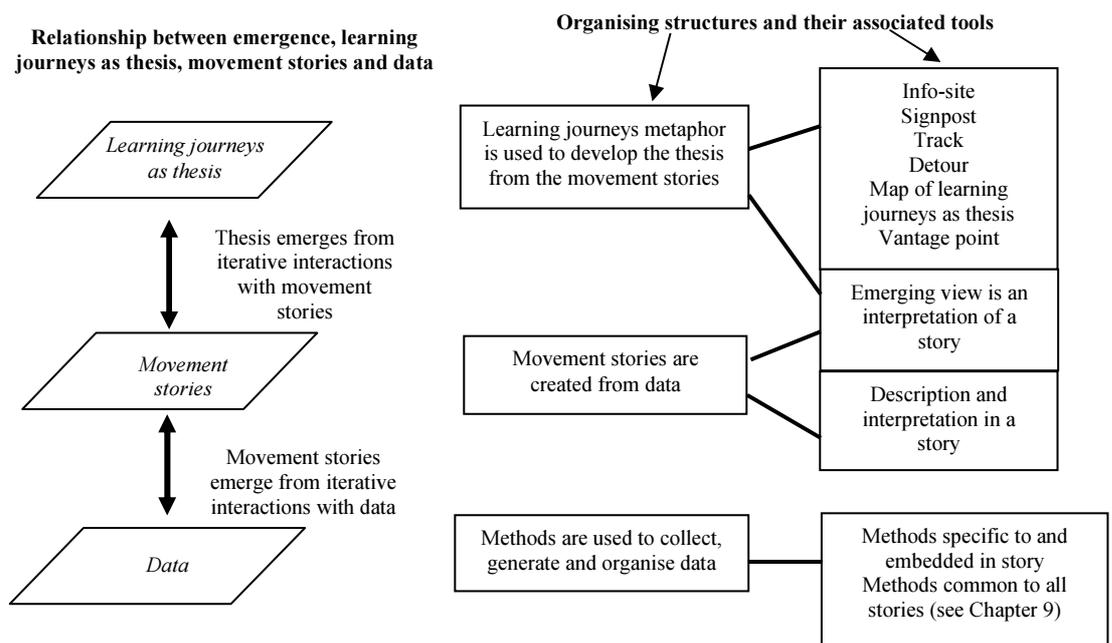
- Identifying and articulating the starting points for the learning journeys (Vantage point A, Chapters 1 and 2),
- Developing frameworks or boundaries for the learning journeys (Chapters 3 and 4),
- Creating a liberating structure from these starting points and frameworks (Chapter 5), and
- Exploring possibilities in professional development, research and thesis within the liberating structure (Chapters 6 to 10, Vantage points A to E).

[4] Organising the thesis report

This thesis investigation deals with complex phenomena which are characterised by emergence and uncertainty (Cambel, 1993; Garmston & Wellman, 1999; Fullan, 1999). This thesis report embodies these characteristics and consequently reflects a tension between its emergent and uncertain nature and clarity normally associated with a master’s thesis. I have attempted to synergise the tension to achieve ‘emergent clarity’, that is, this thesis illustrates emergence and uncertainty at the same time that its argument becomes clearer as the text unfolds.

There are three strategies to achieve emergent clarity in the report. These are using the notions of movement stories and learning journeys as organising structures, and the notion of emergence as an organising process to support and inter-relate the two organising structures. Info-site A-5 shows the relationships between the organising structures and process. It also lists the tools associated with each organising structure. Explanations of the tools are found in various info-sites in this chapter.

Info-site A-5: Relationships between the organising structures and process



[4.1] Using the notion of emergence as an organising process

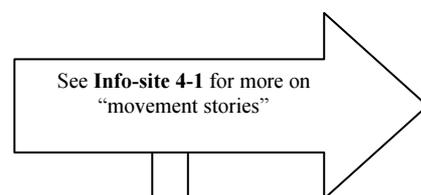
While there are many definitions of the word “emergence” and “emergent” (Emmeche, Koppe & Stjernfelt, 1997; Johnson, 2001; Cohen & Stewart, 1994; Davis, Sumara & Luce-Kaplar, 2000; Visser, 2001), I will use the meaning consistent with the meaning of the word “emerge” and “emergent” as found in the Reed Dictionary of New Zealand English (Orsman & Wattie, 2001). According to the dictionary,

- “emerge” means “to appear or come to sight, especially from concealment” (p. 373), and
- “emergent” means “coming into view or independent existence often unexpectedly” (p. 373).

Emergence, therefore, means a process of coming into view or existence, and what appears can be predictable, unpredictable or has elements that are predictable and unpredictable. This meaning is consistent with the notion of a journey where a feature of the landscape in which we are journeying comes into view expectedly and/or unexpectedly. It also carries the connotation that as we journey, we generate learning in, through and about our journey. The learning can be both expected and surprising, and how we generate that learning can take place in predictable and unpredictable ways.

[4.2] Using movement stories as an organising structure

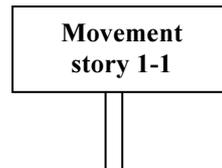
This thesis answers the research questions as it unfolds, using the notion of *movement stories* as an organising structure. This notion is a complex one and, as a starting point, movement stories are *stories of children’s participation in movement activities, stories of change in teachers’ knowledge and practices* and stories that were used to contribute



to further changes or what I call *stories for professional development and change*.

The movement stories are interspersed throughout the entire thesis with some stories nested within other stories. All movement stories are signposted as described in info-site A-6.

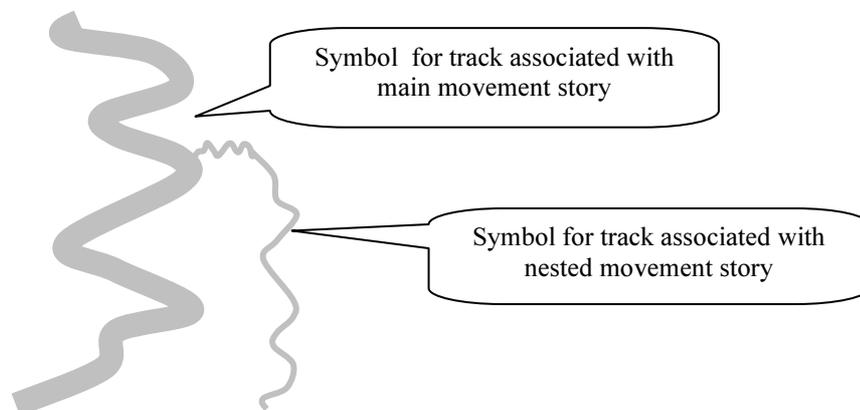
Info-site A-6: Symbol for signposting movement stories



A movement story is labelled according to the chapter and the order in which it appears in the chapter. For example, the first movement story in Chapter 1 is labelled as above. If a story is nested within Movement story 1-1, the nested story is labelled Movement story 1-1-1.

The signposts for the movement stories are found on the left-hand margin at the beginning of the story and on every page which contains that story. They are used in conjunction with tracks so that the reader is able to visually track where they are in the text.

Info-site A-7 Symbol for tracks

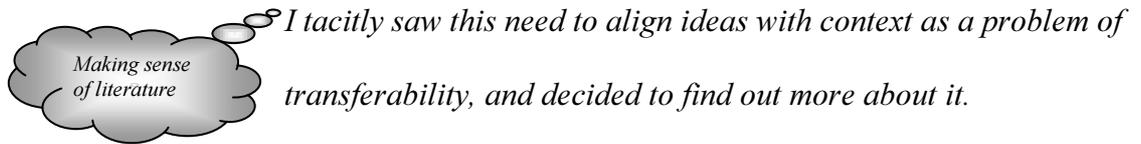


Readers can also recognise a movement story as it has the following elements:

- A description of events, activities and/or experiences which is distinguishable by its regular text,
- One or more interpretations associated with the above description *distinguishable by its italic text*. Some of the interpretations are embedded in the story and represent interpretations in the story. These are marked by the symbol shown in info-site A-8. Other interpretations are interpretations of the story, referred to as emerging views, and marked by the symbol shown in info-site A-9.

Info-site A-8: Representing interpretations in a story

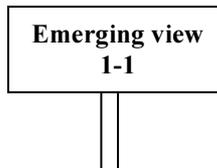
An example of an interpretation in a story (from Chapter 1, p. 18):



Info-site A-9: Representing interpretations of a story as an emerging view

An emerging view is an interpretation of a movement story. It represents a contribution to the unfolding thesis or a contribution to knowledge arising from this thesis. Like movement stories, emerging views are found throughout the thesis.

The signposts for an emerging view are labelled in a similar way to movement stories. They are found on the left-hand margin at the beginning of the interpretation and on every page which contains that interpretation. They are used in conjunction with tracks so that the reader is able to visually track where they are in the text.



Info-site A-10: Referencing the evidence in the text

The evidence referred to in any part of this thesis are referenced in the manner shown in the examples below:

- (Movement story 1-1) means that the evidence is found in Movement story 1-1.
 - (Movement story 1-1[2.1]) means that the evidence is found in Movement story 1-1 under heading 2.1.
 - (Emerging view 1-1) means that the evidence is found in Emerging view 1-1.
 - (Info-site 1-1) means that the evidence is found in Info-site 1-1.
 - (Chapter 7[1]) means that the evidence is found in Chapter 7 under heading 1.
 - (Vantage point A[2]) means that the evidence is found in Vantage point A under heading 2.
-

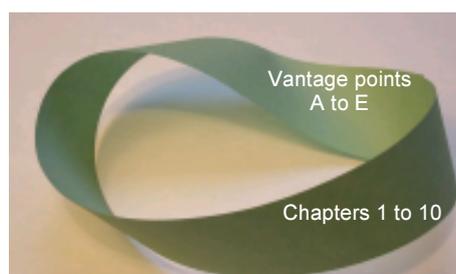
[4.3] Using learning journeys as an organising structure

The learning journeys metaphor is used as an organising structure to develop the thesis from the movement stories. The tools associated with the metaphor serve three overlapping functions. Firstly, they help readers to locate themselves in the thesis. Secondly, they help to create connections among different parts of the thesis. Thirdly, they help to develop the thesis and illustrate the relationships among the various facets of the professional development and thesis. In other words, in a thesis where emergence is its organising process, these tools help to organise the evidence that support the thesis. The list of tools is found in Info-site A-5.

[5] Getting around in the thesis report

This thesis consists of two inter-weaving strands whose relationship is shown in Info-site A-11. Elements of the first strand are labelled Chapters 1 to 10 and relate to the learning journeys as professional development. Elements of the second strand are labelled Vantage points A to E and relate to the learning journeys as thesis. However, both strands are inter-dependent and mutually-constitutive in the same way as the learning journeys as professional development and thesis. Info-site A-12 explains the notion of vantage points and illustrates the relationships between the different learning journeys, chapters and vantage points.

Info-site A-11: Relationship between the strands in the thesis



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Info-site A-12: Learning journeys, chapters and vantage points in the thesis report

Vantage points contain summaries, interpretations and sometimes evaluations of the chapters that precede it. They also provide previews of the following chapters. Vantage points represent the itineraries that lead to the final destination, that is, the thesis. While they may appear to repeat some of the points in the previous chapters, this strategy serves to focus on the main points in those chapters and to break an otherwise long journey into manageable parts.

Table A-1 below shows a general content summary of the vantage points and chapters. Figure A-1 is a map that shows the relationship between the vantage points and the chapters.

Learning journeys	Chapter or Vantage point	General content summary
	Vantage point A	Introduces the learning journeys. States the main idea. Describes philosophical underpinnings, methodology and organisation of the thesis
Learning journeys of a professional development coordinator	Chapter 1	Describes and discusses the beginning of the learning journeys.
	Chapter 2	Describes and discusses the gym programme at the Centre.
	Chapter 3	Describes and discusses the role of complexity theory in the learning journeys.
	Chapter 4	Describes and discusses research questions.
	Chapter 5	Describes and discusses the learning journeys design.
	Vantage point B	Discusses the key points in and emerging from Chapters 1 to 5 and evaluates my role as a professional development coordinator.
The overall learning journeys	Chapter 6	Summarises and discusses the overall learning journeys in terms of professional development activities and significant research milestones.
The teachers' first collective learning journeys	Chapter 7	Describes and discusses the change, monitoring and evaluation of the preschool gym roster.
The teachers' second collective learning journeys	Chapter 8	Describes and discusses the implementation of the teacher-helper scheme.
	Vantage point C	Discusses key points in and emerging from Chapters 6 to 8.
Learning journeys of a researcher	Chapter 9	Describes and discusses the methods for collecting and managing data.
	Chapter 10	Describes and discusses the strategies for making sense of the learning journeys.
	Vantage point D	Discusses key points in and emerging from Chapters 9 and 10.
	Vantage point E	Draws on chapters and vantage points to support the main idea. Draws on chapters and vantage points to develop thesis. Evaluates the thesis and suggests ways to create added value from thesis.

Table A-1: Summaries of chapters and vantage points

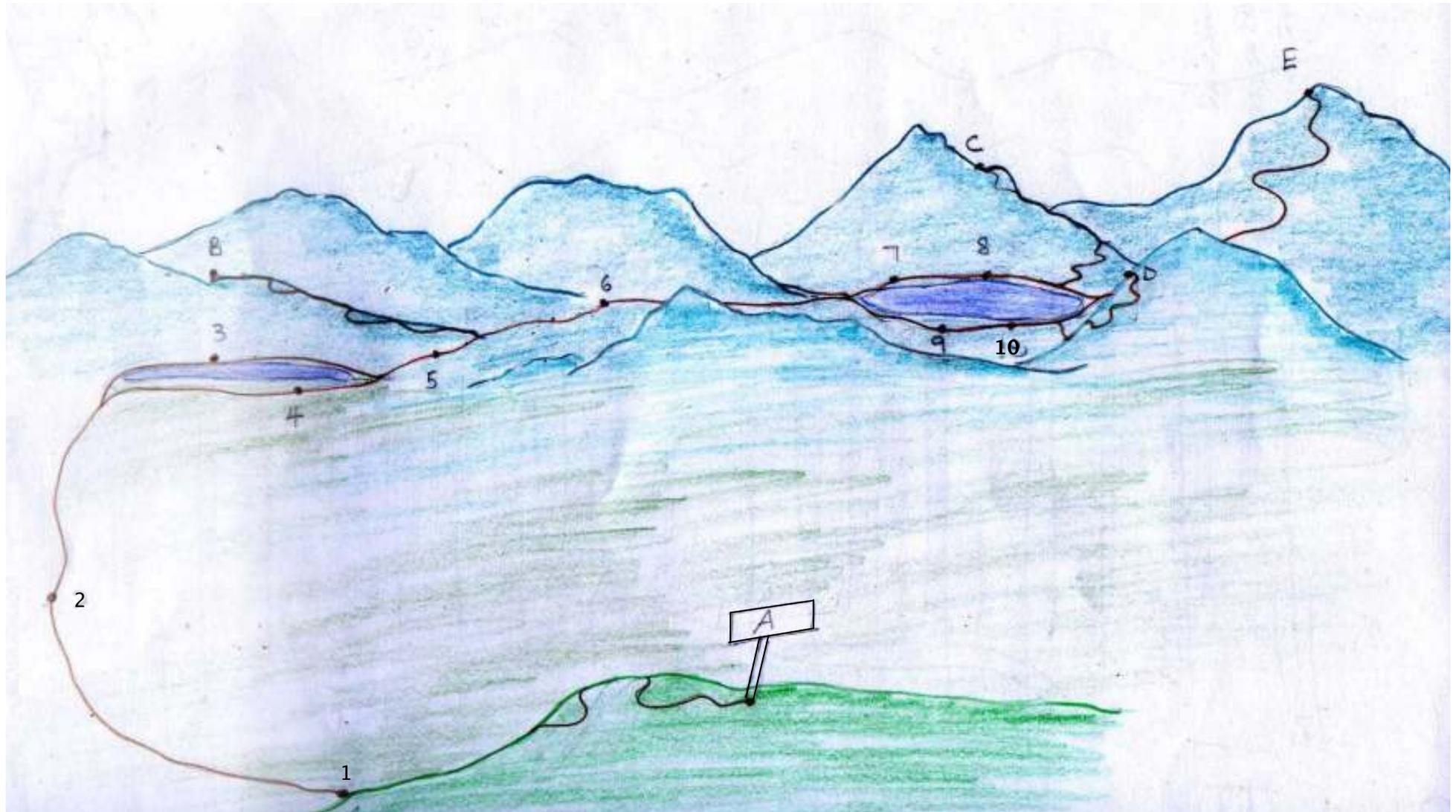
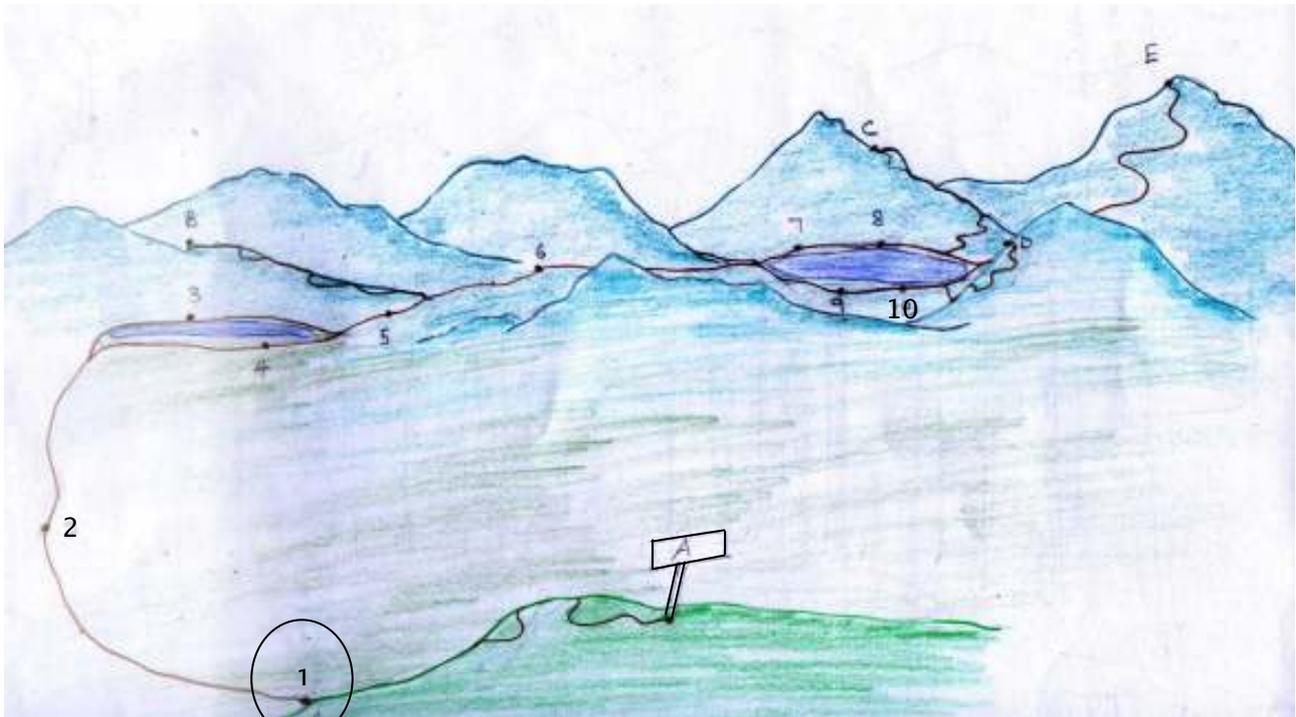


Figure A-1: The map of the learning journeys that shows the relationship between vantage points and chapters

Section 2

Planning the learning journeys



Chapter 1

Learning journeys of a professional development coordinator: Beginning the journey

Preview

In this chapter, I discuss my early experiences as a professional development coordinator in terms of the problem I faced managing the professional development. I discuss the idea of a theory of change as a possible solution and how this idea could be used in the learning journeys. From these experiences, I describe my emerging understanding of theory of change.

Beginning the learning journeys

[1] Experiencing: Learning new roles

I took on the additional roles of professional development coordinator and researcher over and above my usual role as a teacher at the Centre. I did not know what these roles entailed at the start of the journeys, only that I would have to learn these roles as the journeys unfolded: hence the concept of learning journeys.

As part of the new roles, I conducted a review of literature and research into fields of knowledge relevant to the learning journeys to help guide decisions on how to go about with the professional development. These included the fields of physical education, teaching and learning, research, complexity theory and professional development. I had intended that a literature review into the field of professional development would help me make decisions on how we could conduct our professional development.

[2] Reflecting: Articulating a problem

[2.1] A problem of transferability

In my readings, I discovered that professional development was an evolving notion that embodied judgements about what kinds of professional development were valued at a particular place and time (Campbell, McNamara & Gilroy, 2004; Earley & Bubb, 2004; Moon, 2000). The readings gave me ideas about the meanings of professional development (Campbell *et al.*, 2004; Earley & Bubb, 2004), the characteristics of effective professional development in the current climate (Moon, 2000; Campbell *et al.*, 2004; Mitchell & Cubey, 2002; Piggott-Irvine, 2005) and some existing models of professional development (Leach, 1999; Kemmis & McTaggart, 1987; Piggott-Irvine, 2005; Sagor, 2005; Brannick & Coghlan, 2005; Earley & Bubb, 2004; Garmston & Wellman, 1999; Wenger,

**Movement
story 1-1**

McDermott & Snyder, 2002). However, I did not find them helpful in choosing a model for our professional development. Perhaps, it was because, as an inexperienced professional development coordinator, I did not know how or what to choose, given the bewildering array of models available. In the early stages of the learning journeys, I had called the professional development by various names- from action research in a community of practice to developing a community-based knowledge initiative. These were my attempt to give form to the professional development and also reflected my inability to choose.

*Making sense
of literature*

I attribute this inability to choose partly to my awareness that there could be a gap between theory and practice, between ideas and implementation. In my own personal experiences as a teacher, a trained engineer and someone who has had responsibilities initiating and implementing new programmes and initiatives, there was no guarantee that an idea that I adopted from someone else would work. It was more likely that the ideas would have to be adapted. In other words, there is a subtle but, at the same time, huge distinction between having or getting an idea and making the idea work in my own context or setting.

Moon (2000) supports the need to align ideas with context. He writes about the need to focus professional development efforts on contextual and design considerations:

“There is growing recognition that successful professional development programmes articulate well thought through ideas about the learning process. What has been dubbed the cognitive revolution (Bruner, 1996), the move towards a more psychocultural approach to education, is every bit as relevant to professional learning as it is to the nursery play area or classroom. Attention to forms and contexts in which professional development activity is played out is increasingly occupying the attention of policy makers and those implementing practice.” (p. 4)

Movement story 1-1

Making sense of literature

I tacitly saw this need to align ideas with context as a problem of transferability, and decided to find out more about it.

[2.2] Learning about the problem of transferability

What is transferability? While there are different definitions of transferability (e.g., see Hargreaves, 2000), I adopt Fullan's (1999) notion of transferability as movement of knowledge and practice across people and context. Fullan quotes the CEO of Chaparral (cited in Leonard, 1995, p. 7)

"[We] can tour competitors through the plant, show them almost everything and we will be giving away nothing because they can't take it home with them." (p. 63)

He continues by asserting that

"(y)ou should never worry about your good ideas being stolen in educational reform, because even when people are sincerely motivated to learn from you, they have a devil of a time doing so. Transferability of ideas is a complex problem of the highest order." (Fullan, 1999, p. 63)

Making sense of literature

In other words, even when we get ideas from those who are willing to share their ideas with us, it is difficult to make those ideas work successfully in our own organisation. Perhaps, this is especially so when we, as the 'borrowers' of the ideas, have no experience with the ideas.

Fullan gives three inter-related reasons why transferability is "a complex problem of the highest order" (p. 63). Firstly, he argues that "the products of other people's reform efforts hide many of the subtleties of the reform in practice" (p. 63). He explains that hidden subtleties can come in the form of tacit knowledge of the people involved in the change process as well as the differences between the articulated and lived values of the people, groups and organisation involved in

Making sense of literature

the change. It suggests that for transferability to succeed, those who wish to transfer the idea should have some experience in the context

in which the idea has been developed to understand the role of the hidden subtleties in the reform.

Movement story 1-1

Secondly, “successful reforms in one place are partly a function of good ideas, and largely a function of the conditions under which the ideas flourished.” (p. 64).

Fullan argues that we should not copy the reform but

instead try to create the same conditions that exist at the site in which the reform succeeded. *This implies that*

successful change is as much about creating conditions for change as implementing a program of change.



The third reason Fullan gives for the complexity of change efforts is that “reform on a large scale depends on the *development of local capacity to manage multiple innovations simultaneously.*” (p. 65, author’s italics). He argues that this means

the reforms need to “take into account multiple priorities that continuously impinge on individuals and organization” (p. 66). *While*

Fullan’s notion of large scale applies to reforms involving many organisations, I argue that it is also possible to use this

notion in the context of a change effort within and across an organisation. This is because such a reform often does involve multiple priorities and individuals, and consequently need to take these into account.



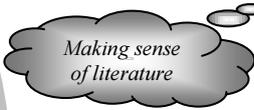
[3] Interpreting: Articulating a possible solution

[3.1] A theory of change as a possible solution

If transferability is a complex problem in creating a professional development or change initiative, what then are the possible solutions? Fullan suggests using a theory of action or change to support our theory of education. He writes that

“(i)t helps if the designers of innovations and those facilitating dissemination have developed a theory of action (e.g. a set of strategies for addressing local conditions) as well as a theory of education” (p. 65).

I saw Fullan’s suggestion of using a theory of change to support change efforts as applicable to the learning journeys due to the juxtaposition of several factors. Firstly, none of the teachers, including myself, had any experience conducting professional development involving an entire teaching team and were not in a position to know which particular model of professional development would suit our learning journeys. However, we all had knowledge of the subtleties of the preschool and were in a good position to articulate and shape the local conditions. Secondly, although I had no experience with conducting professional development involving an entire teaching team, I had some philosophical and theoretical knowledge of and experience in managing learning and change involving individuals and children. Thirdly, I had made a clear and explicit philosophical link between the notions of professional development and change (Vantage point A[2.2]) which paved the way for using a theory of change as an epistemological starting point for the learning journeys.



Movement story 1-1

[3.2] Learning about theories of change

But what is a theory of change? Patton (2002) writes that

“(a) theory of change or a theory of action ... bears the burden of specifying and explaining assumed, hypothesized, or tested causal linkages. ... Theory of change or theory of action are explanatory and predictive. The connotative difference between a “theory of change” and “theory of action”, though the phrases are often used inter-changeably, is that theory of change is more research based and scholarly in orientation, whereas a theory of action is practitioner derived and practice based.” (p. 163)

Fullan (1999) describes a theory of change as strategies that are created to guide and support the implementation of a change effort or “a set of strategies for addressing local conditions” (p. 65). Weiss (1995, in Klem, 2000) defines it as a theory of how and why an initiative works. Friedman (2001) defines theories of action as ““if ... then” prepositions that specify the causal links between program

ends and means as well as the conditions under which these ends are to be achieved” (para. 4). He adds that, according to Agyris and Schon (1978), an organisational theory of action is “a complex system of goals, norms, action strategies, and assumptions governing task performance” (para. 4).

**Movement
story 1-1**

These definitions and description of theory of change and action suggest that in the context of a change effort, creating a theory of change or action involves making connections between purposes, processes, contexts, assumptions in the change effort. A theory of change or action can therefore be seen as ideas that can be used to explain the changes that have taken place or are taking place in the case of an on-going change effort. At the same time, it can be used to predict or foresee the possible changes that can take place when we plan for change in ways that take into account the local context. Although Patton (2002) makes a connotative distinction between the terms theory of change and theory of action, for the purposes of this thesis, I will use the term theory of change to refer to both terms to simplify my discussions.

[4] Taking action: Choosing a theory of change

While the above interpretations suggest that having a theory of change for the learning journeys was a useful idea, the review of literature does not suggest any particular theory of change as a preferred theory of change. On the contrary, Fullan (1999) asserts that there can never be a definitive theory of change for all change efforts, because

“(i)t is a theoretical and empirical impossibility to generate a theory that applies to all situations. Definitive theories of change are unknowable because they do not and cannot exist. Theories of change can guide thinking and action, ... , but the reality of complexity tells us that each situation will have degrees of uniqueness in its history and makeup which will cause unpredictable differences to emerge.” (p. 21)

Fullan’s assertion suggests that we choose or create a theory of change that is suitable for the change efforts we wish to implement. He also warns that even

with a theory of change or action, the path of change is still difficult. He writes that

Movement story 1-1

“(e)ven with a well worked out theory of action, reform initiatives face incredible difficulties pertaining to tacit knowledge, local prehistory, local politics and personalities and so on. But at least you are in the game if you have a theory of action which accompanies your other good ideas.” (p. 65)

Fullan’s warning implies a need to evaluate the local conditions at the Centre and find ways to address the complexity that can arise from the local conditions.

Making sense of literature

Emerging view 1-1

An emerging understanding of theory of change

This movement story articulates learning, viewed as change or movement, from ignorance to a view that it is useful to develop a theory of change when implementing professional development. While the definitions of a theory of change suggest a detailed explanation or prediction of a change effort (Movement story 1-1[3.2]), Fullan (1999) describes a theory of change as a set of strategies to guide and support a change effort (Movement story 1-1[3.2]). At the same time, Moon (2000, in Movement story 1-1[2.2]), Fullan (1999, in Movement story 1-1[2.2], [3.2] &[4]) and Friedman (2001, in Movement story 1-1[3.2]) stress the importance of considering the context or local conditions of the change effort. Their assertions suggest that a theory of change for the professional development should focus on creating a fit between the form of the professional development and its context. Based on this understanding, I argue that a theory of change is a set of strategies that support or guide a change effort in ways that address the local conditions.

The above definition of a theory of change suggests that one way to develop a theory of change is to identify and articulate relevant local conditions at the Centre and find ways to address these local conditions so that they support the

Managing Learning journeys in Active Movement: Developing theories of change in professional development and change professional development efforts. I also argue that Fullan's (1999, in Movement story 1-1[2.2]) reasons why transferability is a complex problem hint at some important facets of the local conditions to consider in an initial attempt to develop a theory of change for the professional development. This is because in the initial stages of developing a theory of change, it is not possible to create strategies to address local conditions without an understanding of what these local conditions are. In other words, an understanding of these facets can serve as starting points for finding ways to fit the professional development ideas with the local conditions.

The first facet of the local conditions is the tacit knowledge of the people involved in the professional development (Movement story 1-1[2.2]). In the context of the learning journeys, I interpret this to mean knowledge that is embedded in the life and relationships at the Centre which are lived everyday but not articulated in any documents. The second facet is the different interests of different individuals and groups involved in the professional development (Movement story 1-1[2.2]), which can be tacit and/or explicit.

Info-site 1-1: Tacit and explicit knowledge

Tacit knowledge can be viewed as

- knowledge that can be regarded as “personal, context-specific, difficult to formalise and communicate” (Nonaka & Takeuchi, 1995, p. 59),
- “skills and beliefs which are below the level of awareness” (Fullan, 1999, p. 15)

Explicit knowledge can be viewed as

- “knowledge that can be transmitted in formal, systematic language” (Nonaka & Takeuchi, 1995, p. 59),
- “words and numbers that can be communicated and shared in the form of hard data” (Fullan, 1999, p. 15).

Based on these understandings of the notion of a theory of change, I describe my understandings of the local conditions relevant to the learning journeys and ways for addressing them in Chapters 2 to 5.

**Emerging view
1-1**



Chapter 2

Learning journeys of a professional development coordinator: Articulating Active Movement at the Centre

Preview

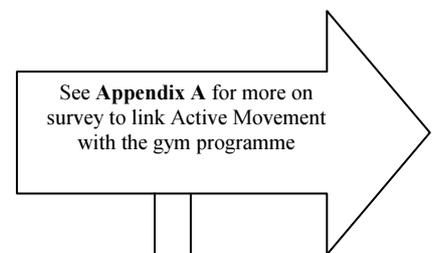
In this chapter, I describe and explain the Centre's gym programme in terms of Active Movement: how it looks like before the professional development, what it means and who make up the Active Movement community. I then introduce the idea of an Active Movement community of practice and discuss the implications of the gym programme for the learning journeys.

[1] Methodology: Creating an image of Active Movement

I will describe the Active Movement programme as a narrative, focusing my description on what the programme looked like on a day-to-day basis before the professional development. In my narrative, I pay particular attention to the activities within the Active Movement programme, and how these activities fit within the wider Centre programme. The rationale for using this approach is to give the reader a feel or an image of Active Movement on a daily basis. Although the day I describe is representative of a typical day, it does not describe what happened on any particular day. I view the narrative as a collage whose data come from several sources.

The first source is my experience of Centre life, which is distilled from more than three years of working at the Centre. This experience constitutes what Coghlan and Brannick (2005) call a researcher's pre-understanding of the organisation where he/she both works and does research. The notion of centre life parallels Wenger *et al.* (2002) idea of the rhythm of a community, made up of people, events, activities and relationships.

The second source is a survey of teachers' perceptions of Active Movement at the Centre, which I conducted in November 2004. This survey arose from an earlier survey, in which the teachers had agreed to link the notion of Active Movement with our gym programme and use this as a starting point for the professional development.

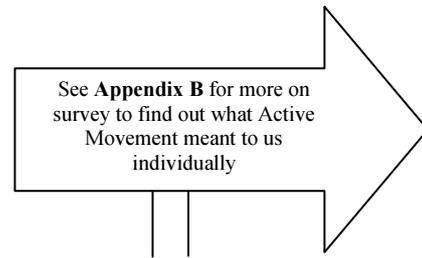


The purpose of the survey of teachers' perception of Active Movement was to find out what Active Movement meant to us individually. The survey was

conducted during a staff meeting, and teachers wrote down their individual responses to eight different questions

around Active Movement. The questions were based on Rudyard Kipling's six wise men, focusing on who, what, where, when, why, and how questions related to Active

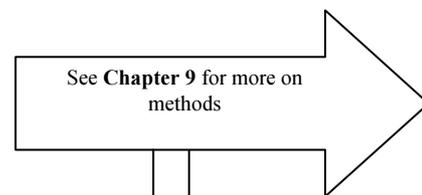
Movement at the Centre. All five teachers, excluding myself, took part in the survey.



The third source is my observations of the Centre's gym programme and conversations with teachers about various aspects of the programme between March and April 2005. The purpose of these observations and conversations was to reflect on the Active Movement system we had *before* the professional development. I carried out my observations and conversations while carrying out my role as a teacher at the Centre so as not to disrupt the Centre's programme. I recorded narratives of my observations, conversations and reflections in my written journal.

The other sources are the teachers' movement stories, observations, video recordings, and journal entries of certain specific activities and conversations collected during the course of the

professional development and research. I have also included photographs in relevant parts of the story to give a clearer image of what I mean.



The narrative gives an image of Active Movement *before* the professional development. However, it is created from data collected *before* and *during* the

professional development because I realised the value of creating a narrative of our programme for this thesis only after we had begun the professional development. Despite this apparent discrepancy, I believe the constructed story fits within the rhythm of the Active Movement community as it existed before the professional development.

**Movement
story 2-1**

Active Movement before the professional development

[1] A day of Active Movement

[1.1] Setting up the gym room

It is 7.50 am on a Monday morning. Some of the teachers have arrived at the Centre for their 8 am start. Two of the nursery teachers, Frances and Manu, are setting up the nursery and Little Ted, another teacher, is in the front office. I go about setting up the activities in the rooms down the back. I bring the chairs down from the top of the table and set up the playdough and art and craft activities. I prepare some paints for the painting easel, put Rara, the rabbit, outside after checking that there is no cat lurking around on the fences.

I hear the main sliding door open followed by an adult's and a child's voices. The first family has arrived. It is Ivy, a two-year old, arriving with her dad. As they enter the Centre, we make conversation about the weekend and the wonderfully hot weather. After a while, Ivy's dad says goodbye and leaves.

Not long after Ivy arrives, Ken arrives with his mum and siblings. By now, I'm in the gym room with Little Ted, who is starting to set up the equipment in the gym room, which had been put away on Friday evening so that the cleaner could clean the gym room floor, a fortnightly ritual. Ivy and Ken watch us as we go about this task.

**Movement
story 2-1**

‘What shall we put up this time?’ asks Little Ted.

‘We’re still focusing the gym programme on upper body strength, aren’t we?’ I ask in reply.

‘Yep,’ comes the reply from Little Ted. ‘Maybe we could set up both the bars so that we have one high bar and one low one. And we can also have the big climbing frame up for the children to swing on.’

I thought that was a good idea. Little Ted and I go about setting up the bars, the frame and then, other equipment around it. The vault goes under the tall ladder with the box and box step next to it so that the little ones can get up. The removable ladder goes at the end of the climbing frame so that children can do some diagonal climbing. The balance beam and the low step are set up in a line for children to do some balancing.

With the equipment done, we drag the mats and place them under some of the equipment. We discover that there aren’t enough mats to go around, so we take a large piece of blue cloth and cover one side of the tall ladder so that the children do not climb up that side of the ladder. The children who have been here for a while know not to climb up an equipment when it is covered up with a cloth.

When all is finished, we survey the gym room set-up. It looks good. The bars and the frame will help the children develop their upper body strength, and still there is other equipment in this particular set-up that will give the children opportunities to develop other fundamental movement skills such as balancing, jumping and climbing. And there is enough space in the middle of the gym room for teachers to do gym time.

**Movement
story 2-1**



Figure 2-1: The gym room set-up

By the time we have finished, more children have arrived. We invite them to ‘test’ the set-up and they accept the invitation without hesitation. The clock is inching towards nine o’clock and the other teachers, Bron, Angela, Titanya and Meeka, have arrived. Other children are also streaming in. Some take their shoes off and put them on the shoe rack before playing in the gym room. Some parents are watching their children play in the gym room, others are their helping their children on the equipment. Other children walk past the gym room to the back in search of other activities or their friends. From the gym room, I see the nursery door opening and shutting with parents and babies going in. I see bodies in the nursery and hear some cries. It is a busy time of the morning with lots of coming and going.

[1.2] ‘It’s gym time’

It is about nine o’clock. Today, Bron is doing gym time and I am supporting her. I ask Bron what she is doing for teacher’s choice. She tells me that she’s going to do a fruit and vegetable sound game that is linked to our programme focus on

**Movement
story 2-1**

healthy heart. She explains the game to me as she puts up pictures of fruits and vegetables in various parts of the gym room.

When her preparations are done, Bron does her clap to get the children's attention. She claps according to the rhythm that both teachers and children recognise as the start of gym and group time- clap, clap, clap, clap, clap.

"It's gym time and group time," she calls out. The teachers start directing the children to their appropriate activity.

'Mary, Jacob, Elliot, you're at group time,' Bron calls out to some of the older children. The younger ones are directed to stay in the gym room for gym time.

Bron and I get the younger children in the gym room to sit in a circle. "E noho ki te porowhita.¹"

We start our beginning routine by alternately clapping our hands and slapping our thighs. "Toru, wha,²" goes Bron as a cue to start the gym time song:

'It's gym time,
Hello, kia ora,
It's gym time,
A special time of day,
It's gym time,
Hello, kia ora,
Sit down, listen,
We've lots of games to play.'

The children join in the actions and the singing. At the end, Bron greets each child individually, and the child responds in his or her own way.

'Kia ora³, Amy,' she calls out to Amy who gives her a wave and a smile.

'Good morning, Peter,' she greets Peter, who replies with a good morning.

**Movement
story 2-1**

In the meantime, a child arrives with her Mum, looking anxious. I ask her if she wants to come and sit on my lap, and she nods her head. She leaves Mum and comes to sit with me.

With the beginning routine completed, Bron explains the game we are going to play for teacher's choice. The children at first look bewildered perhaps because this is the first time they are playing the game. But as they experience the game, their bewilderment turns to laughter and smiles as they first listen in anticipation to Bron call out either 'Fffffff-fruit' or 'Vvvvvv-vegetable' before running to touch the picture of the item she has called out. Some children run to any picture they see. Others run to the picture of the item Bron called out. Then, when she calls them back, they go back to her and wait for the next call. I notice a new child wandering around and looking lost, and I act as his partner and role model. The child follows me- standing, listening, running, touching and running back to Bron.



Figure 2-2: Children engaging in teacher's choice activity with Bron

Bron signals the end of the teacher's choice activity by gathering the children to sit back in a circle. She informs the children that it is now children's choice and points out to some of the equipment and suggests what they can do. When she tells the children they can go for children's choice, they all run off in different directions with loud cheers. Bron and I stand back and watch- many have made for the bars, some have started climbing up the climbing frame, and several have gone on the boxes. At that moment, Titanya comes to relieve me for my morning

**Movement
story 2-1**

break. She will take over the role of the support teacher until I return. As I leave the gym room, I notice that the gates to the gym room are open, and close them so that the children don't wander off from the gym room without our knowledge to another part of the Centre.

I return from my break and Titanya goes down to the back of the Centre to relieve someone else. By then, Bron and the children are already sitting in a circle and starting the winding down routine. They have chosen to stamp their feet as they sing their song:

Ka kite⁴, ka kite,
We've had lots of fun,
Ka kite, ka kite,
We've run and we've jumped,
Ka kite, ka kite,
It's time to wind down.

And then we go straight into another song, *If you're happy and you know it*. The first action is always pakipaki⁵ after which the children get to take turns to choose an action. The children who want to suggest an action put up their hands and are reminded to do it quietly without calling out. Today, Betty decides to 'be a butterfly' and represents it by flapping her arms like a butterfly flying. Next, Peter wants to be a train and moves his arm forward and backward on the mat. Everyone follows the actions as they sing the song.

After two more choices of actions from other children, Bron asks Amy whether she would like to sing ABC or do some counting. The child chooses to count and Bron asks Amy how many she would like to count to. Amy says fifteen. Everybody lies down on their backs and Bron starts with 'toru, wha' after which everybody counts, 'One, two, three, four,' all the way to fifteen. Bron then says, 'Let's all take a deep breath and sit up.'

**Movement
story 2-1**

By now, the older children have streamed into the gym room and are sitting against the sliding door, waiting for their turn to start gym time. Several older children start talking loudly among themselves and are reminded by Angela to wait quietly as the younger children are not quite finished with gym time. Bron suggests to the younger children that they could be quiet butterflies and fly down with Angela for group time. I follow the younger children to the back because Angela is there by herself. After the younger children leave gym room, the older children move in to take their place. Some children run off to the equipment and are called back to sit in the circle.

Gym time for the older children has the same beginning routine, teacher's choice activity, children's choice and closing routine. Bron modifies the fruit and vegetable sound game for the older children slightly. Instead of just running to the pictures of the fruit or vegetable, she suggests that they can either jump or crawl to the pictures.

At the end of the older children's gym time, they move off to the toilet to wash their hands for morning tea. I notice the nursery children at the other gate with Meeka, waiting to come into the gym room for their gym time. When all the older children have left the gym room and the gate through which they left is shut, Meeka opens the other gate to let the nursery children in. I see four children. Two of them run into the gym room, one crawls down the ramp and Meeka carries the last child.

[1.3] The nursery's gym time

Meeka gathers the four children to sit down with her in a circle to sing the gym time song. Kelly and Arnold join in the clapping with Meeka while Ima looks at them. Joseph, who is new, cries as they sing the song. Maybe he doesn't quite

**Movement
story 2-1**

know what's going on. With the song over, Meeka tells them it's children's choice and suggests some activities that they can attempt in the gym room.

After ten minutes, Meeka gets ready for a short teacher's choice. The nursery teachers do not always do a teacher's choice activity. Today, she sings an action song with the children. The children watch her and some try to copy her actions. After a short time, Kelly crawls away from the circle and Joseph gets up and runs off. Meeka calls them back to the circle. When Kelly does not return, she walks up to him and carries him back to the circle, gently reminding him that they are sitting in the circle.

After the teacher's choice activity, she finishes off gym time with *If you're happy and you know it pakipaki*, and decides to take the children outside. She then opens the sliding door that leads to the outside area and the nursery children troop out. Another teacher has already checked and set up the outside area, and some of the preschool children are already playing outside with Titanya. There is no need for shoes today because it is warm and sunny.

[1.4] Free play outside

There is a bustle of activity outside. The outside area is a shared area for all the preschool and nursery children. Some children are riding on trikes, some are playing in the nursery children's playground, some are playing on the obstacle course that one of the teachers has set up- I don't quite know who it was. Others are doing some climbing on the fort while I see yet others playing what looks like Mums and Dads in the house at the top of the fort. As the morning goes by, there is considerable movement of children between the inside and outside areas. Some children come outside wearing high heel shoes and carrying handbags. Others go inside to do some painting or crafts, play in the family and whānau area, play on

**Movement
story 2-1**

the computer, do some puzzles, read some books or join Angela for the morning's literacy and numeracy activity. I see no one in the gym room. The children are not allowed in the gym room without a teacher's supervision.



Figure 2-3: Children engaged in Active Movement during free play outside

[1.5] Free play in the gym room

I decide to open up the gym room. I open the sliding door from outside and call out, 'I'm going to be in the gym room if you want to have some free play'.

Several children respond to my call and run inside. I see children taking their shoes off and remind them to arrange their shoes neatly on the shoe rack. I open up the gate to the preschool for other children to come in.

I spend my time in the gym room either watching or helping the children as they engage with each other and the equipment. Sometimes, a child will call out for help perhaps to swing from the bar. Another child might ask for help to try to get across the monkey bar from one end to the other. When I spot a child climb up the top of the monkey bar for the first time, I stand under the monkey bar ready to grab him if he does fall down from there. Later, Little Ted joins me in the gym room to prepare for the morning's music session.

Movement story 2-1



Figure 2-4: Children having free play in the gym room

[1.6] The rest of the day

The morning's activities draw to a close after music. Some of the children go home at noon, some will stay on until 3pm, some until 4.30pm and others until 5.30pm. The afternoon's activities are much less structured than the morning's activities. There will be lots of opportunities for free play both inside and outside, some children will go for a sleep, there will be an afternoon group time and more opportunities to play in the gym room.

Making sense of Active Movement

[2] Notions of Active Movement at the Centre

Active Movement is a term created and used by SPARC, whereas at the Centre, we commonly use the term gym programme. In this thesis, I use both terms inter-changeably and implicit within their usage are three overlapping meanings from different perspectives.

Firstly, these terms refer to SPARC's definition of Active Movement as "engaging in quality physical movement experiences, which develop and enhance the spiritual, emotional, social, cognitive and physiological growth of the child"

**Movement
story 2-1**

(SPARC, 2004, p. 5). According to SPARC, 'Active Movement embodies the whole child' and "includes the development of heart, lungs, muscles, bones and use of energy" (p. 5). SPARC believes that Active Movement can help children to be happy, confident and feel loved, develop intellectually, emotionally, socially, spiritually and physically as well as build the foundations for learning, moving and communicating.

Secondly, they refer to my notion of early childhood physical education as "patterns of activities that involve, enhance and/or contribute to physical movement of the physical body in the physical world" (Hussain, 2004a, p. 7), whereby the nature of involvement, enhancement and contribution can be direct or indirect. Such a view of early childhood physical education does not in any way imply that the biological, cognitive, emotional, spiritual and language aspects of our lives are not important in early childhood physical education. Instead, they constitute an inextricable part of those patterns of activities that involve, enhance and/or contribute to early childhood physical education. These non-physical aspects of our lives contribute, in varying degrees and depending on context, to our physical being, and vice-versa. This view of early childhood physical education and SPARC's explicit definition of Active Movement acknowledge Active Movement as both a means and an end in a complex world. It is consistent with the New Zealand Curriculum Framework's notion of physical activity as learning in, through and about movement (Ministry of Education, 1999, p. 42-43) as well as with Gallahue and Donnelly's (2003) statement about the aim of developmental physical education as learning to move and learning through movement.

In the context of the Centre, Active Movement refers to our gym programme and specifically relates to children's and teachers' movement experiences during gym

Movement story 2-1

time and free play, in the gym room and in the outside area. However, these do not preclude other movement experiences in other settings at the Centre, and can be both child-directed and teacher-directed. Table 2-1 shows how the teachers have structured the Active Movement programme at the Centre.

There are two key activities: gym time (Movement story 2-1[1.2] & [1.3]) and free play (Movement story 2-1[1.4] & [1.5]). At present, there are three groups of children who have gym time at different times of the morning. The times indicated are approximate and can vary by 10 minutes from one day to the next, from one teacher to the next. The two- and three-year olds, usually called the younger children, have gym time in the gym room between 9am and 9.30am while the three- and four-year olds, whom we refer to as the older children, have group time in another part of the Centre. At 9.30am, the younger and older groups swap over- the older children will come down for gym time and the younger children go for group time. At about 10am, the nursery children will come down into the gym room for their gym time.

Activity	Who is it for?	When?	Where?	Details
Gym time	2-3 year olds 3-4 year olds nursery children	9am – 9.30am 9.30am – 10am 10am – 10.30am	Gym room	Gym time is structured as: Opening song/greetings Teacher’s choice Children’s choice Winding down Teachers’ choice not a regular activity for the nursery gym time.
Free play	All children	Before gym time After morning kai After lunch After afternoon kai	Gym room Outside	Time for child-directed activity A teacher to be present to supervise the activity

Table 2-1: Structure of Active Movement at the Centre

**Movement
story 2-1**

As an activity, gym time has its internal coherence and identity. We start with an opening song, followed by greetings, after which we have a teacher's choice activity for about ten minutes. The teacher's choice activity is intended to give children the opportunities to engage in activities they may not think of doing by themselves, give children the experience of being part of a large group activity and extend their learning in, through and about movement. Teacher's choice is followed by children's choice during which time the children have the opportunity to initiate and direct their learning in, through and about movement within the constraints of the gym room. Gym time finishes with a winding down routine, which consists of several action songs.

Free play, as the second key activity of the Active Movement programme, takes place at all other times outside of gym time. The children engage in free play outside as well as in the gym room under the teachers' supervision. The purpose of free play is similar to that of children's choice, the exception being that during free play, all the preschool and nursery children are allowed to interact with each other and in all parts of the Centre where there is a teacher supervising their activity.

[3] The Active Movement community

The Active Movement community at the Centre consists of teachers, children, parents and management, although each group plays different roles in the community. The community is also dynamic, with new families joining in and existing ones leaving for various reasons. Over the course of the learning journeys, there were also staff changes. We started out with six teachers, with two additions each in April 2005, January 2006 and April 2006. Three teachers left the Centre during the course of the professional development.

**Emerging view
2-1**

An Active Movement community of practice

The above movement story suggests that the Active Movement community at the Centre can be viewed as a community of practice. According to Wenger et al. (2002), a community of practice is a group of people who “share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis” (p. 4). Wenger et al. suggest that we can recognise a community of practice by the presence of three inter-connected elements- a domain of knowledge, a practice and a community. At the Centre, the domain is Active Movement, the practice is the gym programme and the community is made up of teachers, children, management and parents.

**Emerging view
2-2**

Implications for the learning journeys

Mitchell and Cubey (2003) assert that investigating pedagogy in teachers’ own setting is one of the characteristics of effective professional development. This view is consistent with Moon’s (2000) assertion about the need to pay attention to forms and contexts in any professional development activity (Movement story 1-1[2.1]). The gym programme described in this chapter represents the context in which the professional development took place and implies that the programme plays a role in the professional development and vice-versa.

From the perspective of developing a theory of change, the gym programme is one aspect of the local conditions to be taken into consideration when developing a theory of change for the learning journeys. It was a starting point for the professional development that was familiar to the teachers, children and parents.

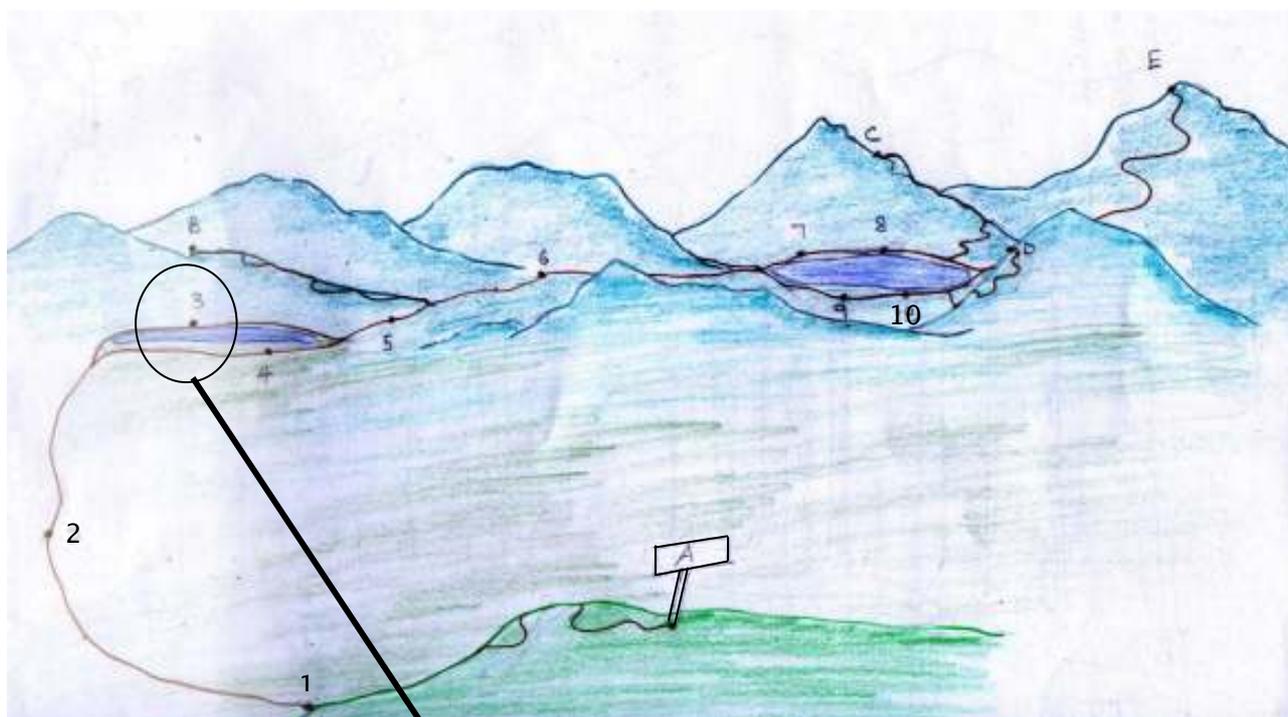
¹ Māori directive for “Sit in the circle”.

² Māori for “Three, four”.

³ Māori for “Hello”.

⁴ Māori for “Goodbye”.

⁵ Māori for “Clap your hands”.



Chapter 3

Learning journeys of a professional development coordinator: Using complexity theory

Preview

In this chapter, I begin developing a theory of change for the learning journeys. I discuss the role of complexity theory in my personal positioning and analyse the complexity of the learning journeys. I conclude that complexity theory can be used as the basis for developing a theory of change for the learning journeys.

I then explain how I use two ideas from complexity theory to negotiate the complexity of the learning journeys: (1) liberating structures and (2) Fullan's (1999) fusion of change forces. I then discuss how these two ideas constitute the key strategies for change in the learning journeys.

Movement
story 3-1

Developing a theory of change

[1] Complexity theory and personal positioning

[1.1] Thinking about personal positioning

The development of the theory of change for the learning journeys has been heavily influenced by my past explorations of complexity theory. I first became interested in complexity theory in 2002 and decided to focus my master's degree on developing an understanding of complexity theory in teaching and learning. In 2003, I created an independent study paper to explore possible relationships between chaos theory and complexity theory, on the one hand, and teaching and learning, on the other hand (Hussain, 2003, 2004a). In 2004, I used complexity theory as the epistemological and theoretical frameworks for exploring issues in early childhood physical education in two other master's papers (Hussain, 2004b, 2004c, 2004d, 2004e, 2004f).



[1.2] Explorations of complexity theory affect personal positioning

My past history with and continued interest in complexity theory highlights what Clough and Nutbrown (2002) refer to as my personal position in the thesis. Baptiste (2001) also suggests that in qualitative data analysis, which covers all aspects of the research process, "it is by defining our roles as analyst that the entire analysis, itself, is defined" (p. 4). He adds that defining ourselves involves an examination of our worldview. The narrative above highlights my experiences in creating and examining my worldview that embodies complexity theory.

Movement
story 3-1

[2] Assessing the suitability of complexity theory in a theory of change

[2.1] Learning in the new roles

While my personal positioning affects the research process and outcomes, I found it necessary to assess if it was appropriate to use that position in the context of the learning journeys. To do this, I reviewed literature on the nature of complexity and analysed the complexity of the learning journeys as part of my decision-making process.

[2.2] Learning about the nature of complexity from literature review

For the purposes of this thesis, I will use the term complexity theory to refer to a body of theories that relate to the study of complex human systems and complex phenomena, which I will also refer to as complexity, that are relevant to education. Fullan (1999), who writes about educational change and reform, calls complexity theory the new science of complexity and writes that it

“essentially claims that the link between cause and effect is difficult to trace, that change (planned and unplanned) unfold in non-linear ways, that paradoxes and contradictions abound and that creative solutions arise out of interaction under conditions of uncertainty, diversity and instability.” (p. 4)

Garmston and Wellman (1999) also write about the role of the new sciences in improving schools, which I believe is equally applicable to early childhood centres.

“As we struggle to understand ways to improve schools, the new sciences reveal a world in which chaos and order are parts of the same system, existing simultaneously. We live not in a world of *either/or* but in the dawning of a world of *both/and*. We learn that schools are complex dynamical systems that are continually influenced by many variables, just as wind, temperature, and moisture affect a weather system and each other. Weather systems and the course of school improvement are both unpredictable in their details but not in their patterns.” (p. 2)

They add that schools, like weather systems, are different from cars. Schools and early childhood centres are complex systems, where the relationships between the different parts are non-linear and always changing. Consequently, the cause-and-

Movement story 3-1

effect relationships in such complex systems are difficult to isolate. Cars, on the other hand, are complicated systems and although there are many parts that make up a car, it is possible to use direct cause-and-effect reasoning to solve problems in the car and isolate malfunctions. Like Fullan (1999), Garmston and Wellman (1999) hint at the existence of paradoxes and contradictions in a complex world. They cite John Briggs (1992, in Garmston and Wellman, 1999),

“It appears that in dynamical systems chaos and order are different masks the system wears: in some circumstances the system shows one face; in different circumstances it shows another. These systems can appear to be complex; their simplicity and complexity lurk inside each other.” (p. 2)

Making sense of literature

To summarise, a complex system is made up of many interacting parts, which interact with each other in non-linear ways. These non-linear relationships among the parts give rise to special characteristics in a complex system. These characteristics are non-linear dynamics and uncertainty in the form of paradoxes and contradictions, a high degree of unpredictability and untraceable cause-and-effect. Was the learning journeys a complex system? I needed to analyse it to find out.

[2.3] The complexity of the learning journeys

Movement story 3-1-1

[1] The emergent nature of learning journeys in Active Movement

The idea of a learning journey started to crystallise as I conducted a research investigation at the Centre as one of my assignments for another master’s paper, TL890 Educational change in the 21st century, which focused on futures-related issues in early childhood physical education (Hussain, 2004e; 2004f). During that investigation, which I called “Journeys with Hoops”, I created a basic hoop dance, and with the



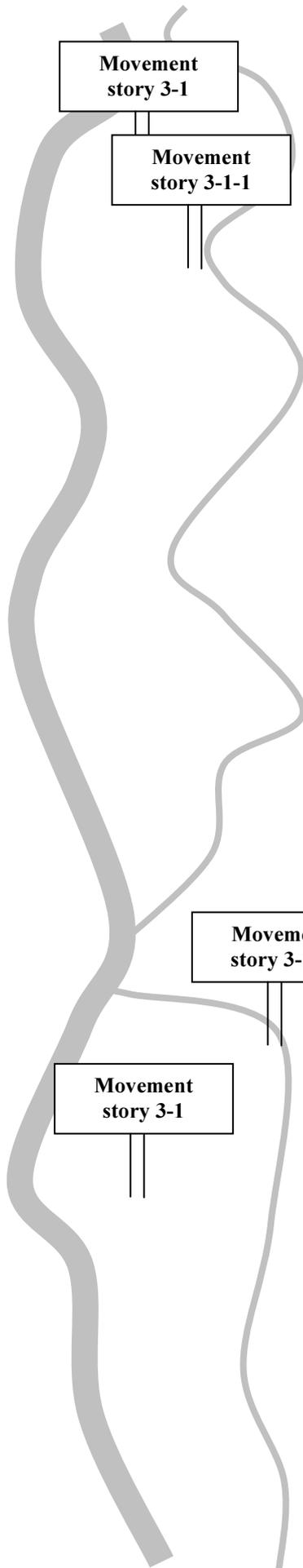
children, we collaborated at creating variations of the dance. It was a significant investigation for me because I felt that I had found a path that enabled me to use complexity theory not only as a teacher, but also as a teacher-researcher. The investigation gave me insights into ways of living creatively and ethically in a complex world, focusing on values such as adaptation, creativity, experimentation, responsibility, freedom, ethics, sustainability, uncertainty, individual and collective pathways, mistakes and hopes.

These insights spurred me to further explore the notion of a learning journey for my master's thesis, one that was far more complex and could include the notion of individual and collective journeys. I began to wonder if the teachers at the Centre would be interested in embarking on this new learning journey, a learning journey which, hopefully would be meaningful to us personally as individual teachers and collectively as a teaching team. After two years of developing our gym programme together, I felt that the time and conditions seemed right to embark on professional development in this area of the Centre programme. We had already developed a relatively consistent and coherent programme that the teachers, children and parents recognised as the Centre's gym programme.



[2] Dynamic complexity

The idea of a learning journey has a history that preceded Learning journeys in Active Movement. This history suggests that the learning journeys can be viewed as a complex system created from connections between the past, the present and the future.



According to Cambel (1993), dynamic complexity refers to the degree to which the outcomes of a complex system are unpredictable and inter-connected with other outcomes, structures and processes. This implies that the history of the learning journeys contributes to the dynamic complexity of this current learning journeys. Furthermore, not knowing what the outcomes of the current learning journeys would be and, at the same time, having the intention to make them personally and collectively meaningful increases its dynamic complexity.

[3] Personal positioning



The insights that spurred me to further explore the notion of a learning journey highlight the values I hold in my teaching and learning, which is again a reflection of my personal positioning. I believe these values to be important and useful for living in a complex world.

Movement story 3-1-2

Movement story 3-1

[1] The multiple purposes of the learning journeys

Between September and November 2004, I suggested the idea of professional development to the teachers and related it to the thesis that I wanted to do as part of my master's qualifications. On 23rd November 2004, I put out a written survey to confirm whether the teachers were interested in doing professional development (Appendix A). Four of the five teachers agreed while the last was unsure if she would be able to cope with it. The latter later changed her mind and joined us.

Movement story 3-1

Movement story 3-1-2

In December 2004, I handed out a survey to individual teachers to find out what they knew about Active Movement, what they wanted to know about it, how they wanted to learn. I called this survey the KWHL survey. As the professional development co-ordinator, I wanted to understand their learning needs and aspirations so that I could try to cater to these. From the survey, I realised that there was a diversity of needs and aspirations.

See Appendix C for more on this survey

Making sense of experience [2] Functional complexity

The learning journeys served two purposes, which I have described in terms of the learning journeys as professional development and as thesis. (Vantage point A[2]). This dual purpose reflects its functional complexity.

In addition, the above movement story suggests that the learning journeys as professional development was intended to serve teachers' interests as individuals and as a collective, which further adds to its functional complexity. Using Clough and Nutbrown's (2002) perspective that all social research is purposive, positional and political, a juxtaposition of different purposes to serve multiple interests also suggests that Learning journeys in Active Movement was highly political in nature and that tensions could arise when we tried to serve the different interests.

Movement story 3-1

Movement story 3-1-3

[1] The role of SPARC

At the same time that the teachers and I were interested in starting our professional development SPARC had just launched a nationwide resource called “An Introduction to Active Movement: Koringa Hihiko” (SPARC, 2004). I considered looking for ways to collaborate with them, and found the opportunity in their belief statement that every organisation should have a framework for action that can help to create “high quality and sustained Active Movement opportunities in Aotearoa New Zealand” (p. 44). I viewed my centre as a setting that can and does “provide access to and support for Active Movement” (p. 41). We had a physical activity policy in place and a programme that the teachers viewed as Active Movement. In my view, we had already implemented two areas of SPARC’s framework for action (p. 45), that is, the areas of policy and strategy, and of programmes, initiatives and practices. The professional development and related research would help us focus on extending our centre’s framework to include the areas of effective delivery, research and partnerships. I used this argument as a basis for applying for a research grant from SPARC to fund the learning journeys. In July 2005, SPARC approved a research grant of \$17 000 for the learning journeys.

[2] Structural complexity

By connecting the professional



development, the gym programme, SPARC’s new Active Movement

Movement story 3-1

Movement story 3-1-3

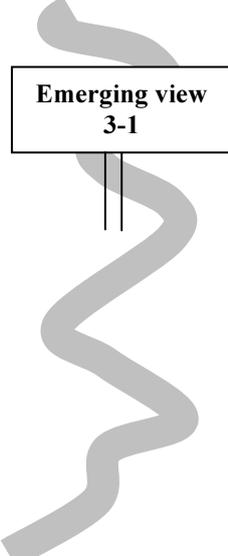
initiative and my thesis, I had created a web of connections among these four entities. These inter-connections of entities and the different but inter-related contexts in which our learning journeys were set highlighted the structural complexity of the learning journeys. To add to the complexity, the gym programme and SPARC's Active Movement initiative were themselves complex systems, each with its own identity and coherence at the start of the learning journeys. I also had hopes that as the professional development and thesis unfolded, these too would develop their own identities and coherence, and further contribute to each other in positive ways.

The inter-connections among the gym programme, professional development and SPARC's Active Movement also meant that I had created a web of relationships among different people and groups. This web of relationships included direct relationships between myself and the teachers, the children and their families, the Centre's manager as well as SPARC, and consequently created indirect relationships among the other individuals and groups. It seemed likely that issues could emerge within this web of relationships.

Emerging view 3-1

Complexity theory as the basis for developing a theory of change for the learning journeys

Was the learning journeys a complex system? The above analyses suggests that it was. A past history connects the past with the present and the future (Movement story 3-1-1). Creating multiple purposes connects different purposes and interests (Movement story 3-1-2). Making connections among different entities creates a web of connections as does creating relationships with different people



Emerging view 3-1

or groups of people (Movement story 3-1-3). In summary, the learning journeys was a complex system whose complexity emerged when I intentionally created the web of connections between the different facets of our individual and collective lives. And there was a further possibility of other connections emerging without any intention for it to happen, thereby further increasing the complexity of the learning journeys. I viewed the learning journeys to be sufficiently complex even at the early stages to warrant the choice of complexity theory as the basis for developing its theory of change.



Movement story 3-2

Complexity theory and decision-making

[1] Learning in the new roles

But what does it mean to say that complexity theory is the basis for developing a theory of change? The literature review suggested that complex systems such as the learning journeys display characteristics such as non-linear dynamics, paradoxes and contradictions, a high degree of unpredictability and untraceable cause-and-effect (Movement story 3-1[2.2]). These characteristics, in turn, suggest that it is one thing to understand the nature of complexity, but another to be able to successfully make decisions and negotiate life in a complex world in ways that are creative, ethical and sustainable. In my roles as the professional development coordinator and researcher, I analysed the literature on complexity theory to learn how to do so.

[2] Negotiating complexity

Brown and Eisenhardt (1998, p. 14, in Fullan, 1999) give an idea of how to successfully negotiate life in a complex system:

“Complexity theory began with an interest in how order springs from chaos. According to complexity theory, adaptation is most effective in systems that are only partially connected.

**Movement
story 3-2**

The argument is that too much structure creates gridlock, while too little structure creates chaos. A good example would be the traffic lights in a city. If there are no lights, traffic is chaotic. If there are too many lights, traffic stops. A moderate number of lights creates structure, but still allows drivers to adapt their routes in surprising ways in response to changing traffic conditions. Consequently, the key to effective change is to stay poised on this edge of chaos. Complexity theory focuses managerial thinking on the interrelationships among different parts of an organization and on the trade-off of less control for greater adaptation.” (p. 5)

Brown and Eisenhardt’s idea of a structure that is neither too controlled nor too laissez-faire resonates with Davis *et al.*’s (2000) idea of a liberating structure (Info-site A-4).

*Making sense of
liberating
structures in the
learning journeys*

[3] Liberating structures in the learning journeys

Building on Brown and Eisenhardt’s ideas, for the learning

journeys to be meaningful to myself, the teachers, the children, the

Centre and SPARC, I needed a model of learning that was neither too loose nor

too rigid. In addition, I needed to ensure that the connections between my thesis,

the professional development, the gym and centre programme and SPARC were

loosely-coupled. In this way, I hoped that the teachers and I could be free to

explore our own individual and collective learning.

[4] Fullan’s (1999) change forces

Fullan (1999) also suggests that to be able to negotiate change successfully, there needs to be a fusion of what he calls the forces of change. These forces of change are political, moral and intellectual forces, which he also refers to as power, purpose and ideas. What did the change forces mean in the context of the learning journeys and how was the idea of fusion of change forces applicable to the learning journeys?

[4.1] Political force

Movement
story 3-2

Fullan (1999) describes political force as “the power politics of recognizing that social cohesion, better health and economic productivity are closely associated” (p. 9).

Making sense of literature

In the context of the learning journeys, I took this to mean that those who hold power and make the decisions should recognise the inherent tensions in trying to balance teachers’ and children’s learning, development and identities. Furthermore, those in such positions of power should be judicious in using whatever power they have to achieve that balance. In initiating and leading the learning journeys, I found myself in such a position of power. Furthermore, the web of relationships I had created (Movement story 3-1-3[2]) suggested multiple power relationships with the teachers, children, families and SPARC.

[4.2] Moral force

The moral or spiritual force of change, according to Fullan (1999), reflects the moral purpose in what we do. In simple terms, it can mean “improvements designed to make a difference in the lives of the students” (p. ix), which can make teaching a meaningful activity or career. Fullan relates moral purpose with “a deepening interior need to find and give meaning to life” (p. 82), which he believes resonates with many people including teachers.

However, Fullan warns that moral purpose “is not as straightforward as it seems” (p. ix). Having moral purpose alone is not enough to make a difference, given that we live in a complex world where multiple perspectives, interests, values and hence, paradoxes and conflicts, abound.

Making sense of literature

Movement story 3-2

In the context of the learning journeys, the moral purpose embedded in it refers to the initial intention to make the learning journeys meaningful for individual teachers and groups. However, with the web of connections between individuals, groups and organisations with different values, interests and ideas, perhaps the idea of moral purpose should be extended to what Wenger et al. (2002) refer to as creating multiple values for individuals, groups and organisations. This value that we can create during the learning journeys can include short-term or long-term value, tangible or intangible value, strategy-implementing or strategy-making value (Wenger et al., 2002).

[4.3] Intellectual force

Fullan's (1999) intellectual force relates to the knowledge we use and create in our attempts to fuse with the political and spiritual forces of change. *In order to create an understanding of the notion of intellectual force, I will integrate perspectives on knowledge from Wenger et al. (2000), Nonaka and Takeuchi (1995) and Putnam and Borko (2000) because I believe that knowledge is a complex phenomenon.*

Making sense of literature

Firstly, knowledge is embedded in and embodies the act of knowing, that is, to know is to act and to act is to know (Wenger et al., 2000). This act of knowing is situated in particular historical, physical and social contexts.

Secondly, knowledge can be both tacit and explicit (see Info-site 1-1).

Furthermore, Wenger et al. (2000) argue that we know more than we can tell and that not everything we know can be made explicit. *To put it differently, we may or may be aware of our knowledge and we may or may not be able to express what we know. In other words, knowledge embodies and is embedded in our*

Movement story 3-2

Thirdly, knowledge is social as well as individual, that is, it can exist as collective knowledge and personal knowledge (Wenger *et al.*, 2000). Such a view resonates with Nonaka and Takeuchi's (1995) assertion that knowledge can exist at individual, group, organisational and inter-organisational levels.

Fourthly, knowledge and knowing can exist as distributed knowledge and cognition. Putnam and Borko (2000) cite Lave (1988) in asserting that knowing can be distributed or 'stretched over' individuals, others as well as physical and symbolic tools. *I interpreted this to mean that knowledge can be similarly*

distributed and that knowledge in and about life at the Centre was distributed across the people, the culture and the programme we had established. It also meant that no one teacher knew everything about the Centre and therefore needed each other to be effective.

Fifthly, knowledge is always changing and moving at the same time that it consists of a stable core (Wenger *et al.*, 2000). Wenger *et al.* argue that given the dynamic nature of knowledge, we must learn to manage the knowledge that we use and create. *In the context of the learning journeys, this suggests that teachers*

needed to know what the stable core of knowledge was in relation to our gym programme. At the same time, we needed to manage the new learning that emerged when we engaged in professional development so that we could benefit from it individually and collectively.

[4.4] Political, moral and intellectual fusion

Fullan (1999) uses the idea of political, moral and intellectual fusion as a metaphor to describe "the three sets of forces interacting and combining for

Movement story 3-2

maximum effect” (p. 82) for moral purposes. In terms of organisational change, fusion can have simultaneous impact at individual, organisational and system levels. Fullan quotes Daft and Lengel (1998, p. 235):

“One theme in all types of fusion [interaction] is that organizational and personal fusion reinforce each other. Individuals discover their own wholeness in a fusion of relationship with others. And organizational fusion needs the leadership and enthusiasm of participants to transform the larger system. Fusion is accomplished through conversation across traditional boundaries that meets people’s yearnings to be part of something larger than themselves, to face reality and new challenges, to create a shared future together, and to take action that serves others and the organization. Fusion leaders know how to orchestrate fusion to achieve bursts of motivation and change”. (p. 82)

Making sense of fusion of change forces

[5] Fullan’s (1999) fusion of change forces in the learning journeys

In the context of the learning journeys, I interpret the phrase political, moral and spiritual fusion to mean using power, purpose and ideas in ways that could start, contribute to or create positive change, which can be for individuals, groups and entities involved in the learning journeys. Furthermore, as Wenger et al. (2002) suggest, this change can be short-term, long-term, tangible, intangible, strategy-implementing and strategy-making (Movement story 3-2[4.2]). However, given the complexity of the learning journeys, it is likely that the outcomes and paths of change would be different for each person, group and entity, and these outcomes were aspects of the learning journeys that were unpredictable in their details. They would only emerge as we lived and experienced the learning journeys.

Emerging view 3-2

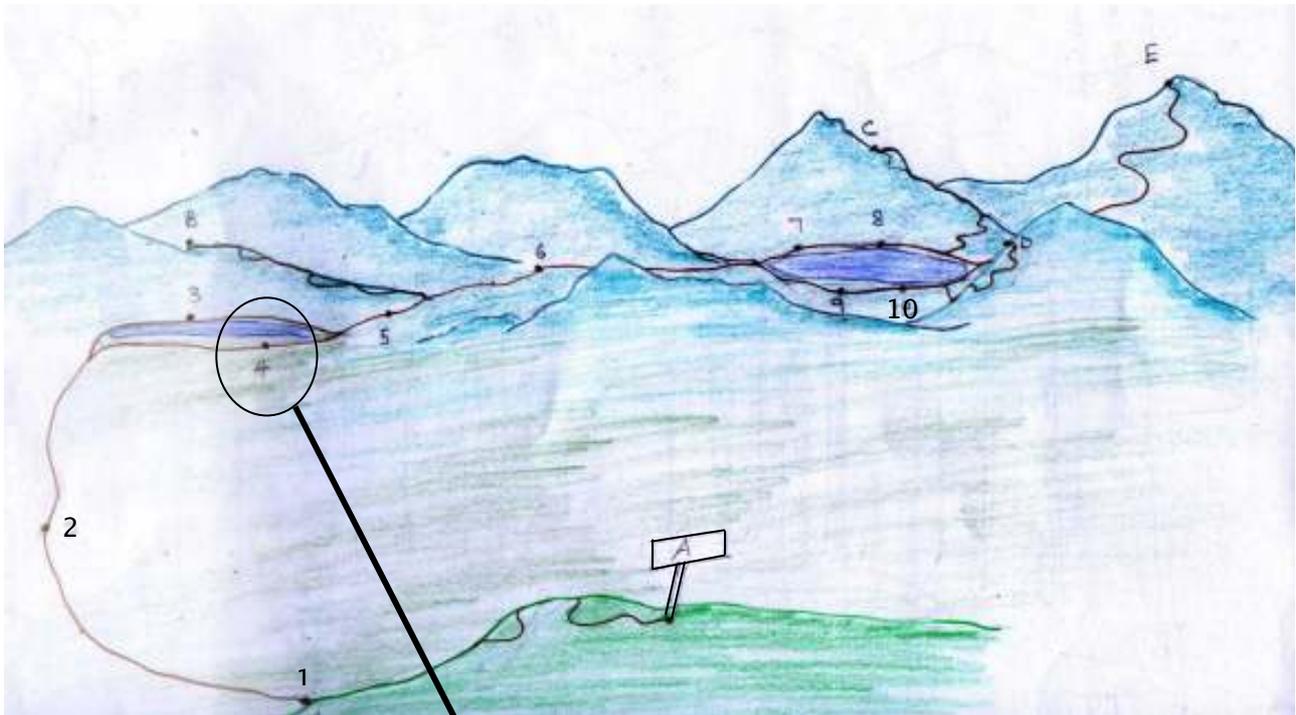
The emergent strategies for change

As part of my efforts to create a theory of change for the learning journeys, I unearthed some insights that could help us successfully negotiate the learning journeys in ways that are creative, ethical and sustainable, which represent the

Managing Learning journeys in Active Movement: Developing theories of change in professional development and change preferred values that I hold for the learning journeys (Movement story 3-1-1[1] & [3]).

**Emerging view
3-2**

The first insight is that creating liberating structures or structures that are neither too rigid nor too loose is a useful tool for negotiating complexity to achieve creative and sustainable solutions (Movement story 3-2[3]). The second insight is that Fullan's (1999) idea of synergising or fusing political, moral and intellectual forces of change can be useful in bringing about change in ways that are ethical and beneficial to individuals, groups and organisations (Movement story 3-2[5]). While the first insight focused on being free to be creative, the second focused on using that freedom and creativity ethically. Bearing in mind Fullan's (1999) notion of a theory of change as strategies that are created to guide and support the implementation of a change effort (Movement story 1-1[3.2]), I used these two insights as key strategies for change. The adoption of these key strategies implies that decision-making in the context of the learning journeys should embody the ideas of liberating structures and political, moral and intellectual fusion.



Chapter 4

Learning journeys of a professional development coordinator: Developing the research questions

Preview

In this chapter, I discuss the origins and development of the research questions and the notion of “movement stories”. I then discuss the implications of the research questions on the learning journeys design and on the overall theory of change, and modify the research questions for the purposes of the developing this thesis.

Movement story 4-1

Developing the research questions

[1] From learning stories to movement stories

After generating a list of possible questions, I initially selected the following question as my research question:

- What are the learning stories of teachers when they engaged in professional development in Active Movement?

I chose to focus the research question around stories since the teachers at the Centre were already familiar with using learning stories as a form of assessment of and for children's learning (Carr, 2001). However, the learning stories of teachers would be distinct from the children's learning stories but could be created

from them. *Upon reflection, the implied assumption in this question was that*

when teachers wrote and interpreted stories about children's learning, their interpretations of the children's learning reflected their own learning.

Making sense of experience

Later, after a series of reflections, which I recorded in my journal, I modified the question by changing the term "learning stories" to "movement stories". I also added another question to examine how the professional development might impact on teachers' learning and change. The final research questions I developed for the learning journeys were:

- What are the teachers' movement stories when we engage in professional development in Active Movement?
- How do the movement stories change during the professional development?

Movement
story 4-1

[2] Changing the notion of “movement stories”

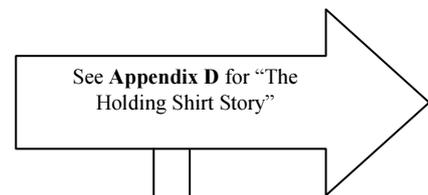
Initially, I used the term “movement stories” in conjunction with the notions of movement in Info-site 4-1 to refer to stories or narratives told by the teachers, including myself. These stories could be told in oral or written forms, and could be about children’s movements, our own movements and/or our colleagues’ movements. This approach focused on observing children’s behaviours and interactions as well as teachers’ behaviours, interactions, thoughts, feelings and attitudes, and creating stories or narratives that reflected learning. The crucial element in each movement story was to be the teacher’s interpretations or reflections of the story. In movement stories, the experiences could be told by individual teachers and/or as a collective, and the interpretations of the stories could be from multiple and/or combined perspectives.

The notion of movement stories underwent a change as the learning journeys progressed. In October 2005, I created “The

Holding Shirt Story”, which illustrated how the teachers at the centre learnt from each other by observing each other’s practice. I

disseminated the story to teachers, parents and other people outside the centre.

After reflecting on the story and its creation and dissemination, I realised that I could use the story as a means of trying to bring about further change. To achieve this, I added a new meaning to the notion of movement stories as one that was intended to create change. In other words, the term “movement stories” initially referred to stories *of* Active Movement, learning and change. Later, I expanded it to incorporate stories *for* learning and change.



**Movement
story 4-1**

[3] Crafting our own solutions

Making sense
of experience

The creation of the new term, movement stories, and its subsequent change in meaning is consistent with Fullan's

(1999, p. 28) eighth change lesson. He asserts that when implementing change, we can craft our own theories and actions by being a critical consumer. Fullan quotes Mintzberg (1994, p. 27) who writes,

“Never adopt a technique by its usual name. If you want to do re-engineering or whatever, call it something different so that you have to think it through for yourself and work it out on your own terms. If you just adopt it and implement it, it is bound to fail.”

My main reason for creating the term “movement stories” was to avoid confusion with the term learning stories. I wanted a term that encompassed Carr’s (2001) notion of learning stories in relation to children’s learning in, through and about Active Movement and, at the same time, included stories of and for teachers’ learning and change in the context of the professional development. The notion of movement stories embodied and reflected both these ideas better.

Info-site 4-1: Definition of terms in the research questions

Teachers

The term “teachers” referred to the permanent full-time teachers at the centre. At the start of the learning journeys in September 2004, the staff comprised only permanent full-time teachers, but later, the staff expanded to include permanent relievers, who also sometimes took on the role of the centre’s domestic. The learning journeys did not include the permanent relievers as they were not involved in planning, conducting, assessing and evaluating the gym programme.

Movement

The term “movement” in this learning journey had two inter-related meanings. Firstly, it carried the same meaning as in common everyday usage, that is, movement as physical movement of the physical body in space and time.

Its second meaning was a superset of the first view of movement. In keeping with Fullan’s (1999) notion of movement as change, movement was viewed as degrees of change and continuity in our knowledge, actions, thoughts, feelings attitudes, etc. that could be reflected in the stories we tell over space and/or time. In other words, movement encompassed not only physical movement but change or movement in all domains of our being, including the cognitive, emotional, biological and spiritual domains. The idea of movement as degrees of change and continuity suggests a shift in our present position that is linked to our past ideas, actions and feelings, mediated by our internal and external ecology. It parallels the notion of *learning* as living or adaptive creativity or reciprocal adaptation between a complex adaptive system and the environment (Davis *et al.*, 2000; Visser, 2001).

Movement stories

Movement story 4-1

Movement stories are stories that have one or more of the following characteristics:

- They are stories of learning in, through and about Active Movement,
- They are stories about change, that is, stories that focus on change as an outcome,
- They are stories intended to bring about change, that is, they focus on change as an intended outcome but do not necessarily arise from it.

Engage in professional development

The term “engage in professional development” refers to

- participation in any activity, event and/or
- experience that directly and/or indirectly contribute to
- and/or was intended to contribute to a teacher’s knowledge and practice of Active Movement.

One source of contribution could come from the experiences that the teachers, including myself, co-constructed within the centre. Other sources of professional development could include a teacher’s professional development that she undertook outside the centre as well as her own readings and reflections.

Active Movement

For the purposes of this thesis, I will view Active Movement as a complex phenomenon with multiple inter-related meanings (Movement story 2-1[2]). The meaning teachers chose to use at any particular time depended on such factors as our purpose and the context in which we were using it.

Change

The word “change” was used to denote a movement that encompassed the subtle differences in words such as alter, modify, vary, transform, revolutionise, adjust, adapt, amend, transition and shift. Like movement, change suggested a difference, however, small or large, between the past and the present. In a complex and non-linear world, this change or difference could be in any form, power or direction (linear, non-linear, fast, slow, continuous, discontinuous, predictable, unpredictable, adaptive, maladaptive, simple, complex, etc.) and would include some degree of continuity with the past. As with the term Active Movement, the meaning we used depended on the purpose and context.

During the professional development

The term “during the professional development” was taken to mean the duration of the teachers’ professional development from September 2004 to June 2006. This duration referred to the data collection phase of the learning journeys and effectively put a time boundary on the amount of data collected. The purpose of limiting the amount of data was to avoid being overwhelmed by the amount of data I collected since I viewed both change and a teacher’s professional development as on-going aspects of a teacher’s life. Furthermore, the learning journeys as thesis extended beyond the learning journeys as professional development, and I used the duration of the professional development as a practical strategy to limit the amount of field data

Emerging view
4-1

Implications of research questions on design and on the overall theory of change

The research questions in the learning journeys were rather broad and non-specific. It underlies the fact that the purpose of the research into the professional development was not so much to evaluate the professional development against any set benchmarks such as notions of effectiveness or quality. Instead, the questions suggested tracking changes that would take place and evaluating those changes against benchmarks that had not yet been created at the beginning but that would emerge during the course of the learning journeys. Finding these benchmarks would be part of the research process.

In terms of its contribution to the theory of change for the professional development, the research questions represented a strategy for tracking the change and learning that would take place during the professional development. This strategy took into account local conditions such as the teachers' use of learning stories (Movement story 4-1[1]) and the complexity of the learning journeys (Chapter 3) by embedding these into the definitions of movement stories, professional development, Active Movement and change in the research questions (Info-site 4-1). The research questions represented a strategy to align the purpose of the research into the professional development with that of the professional development.

Emerging view
4-2

Modifying the research questions to develop the thesis

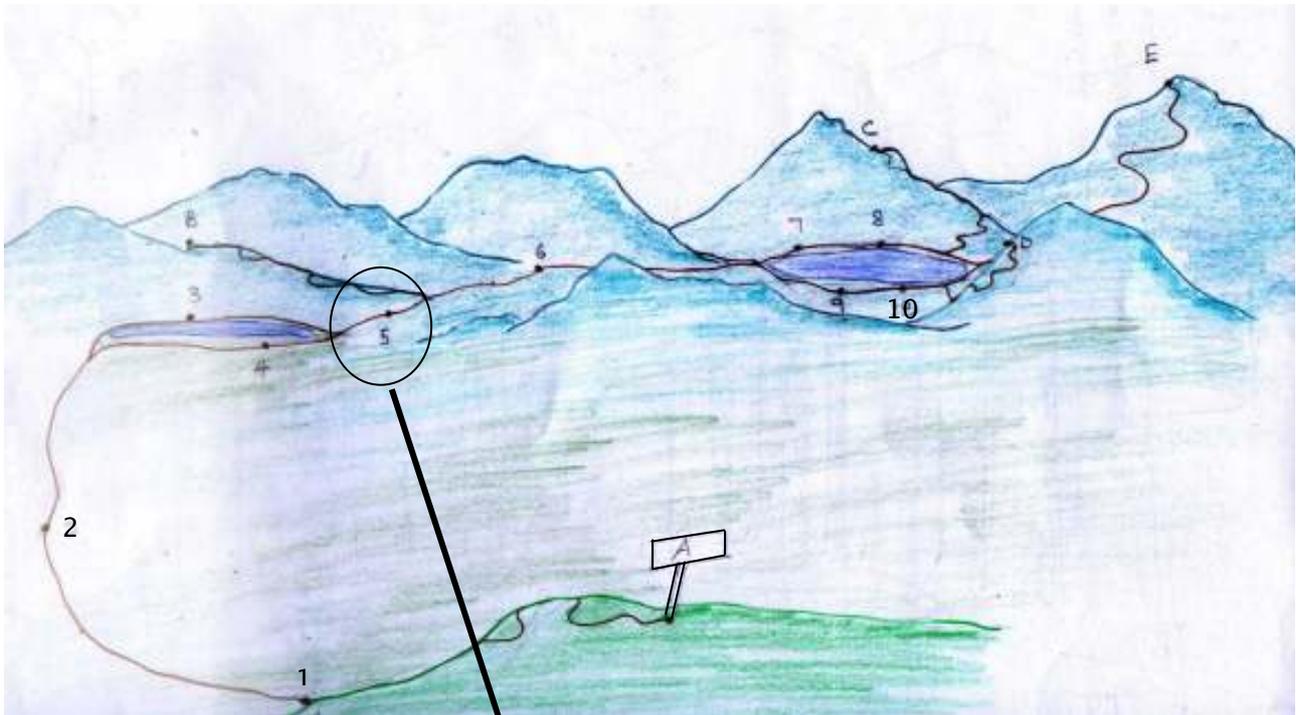
The same research questions are used as the bases for developing this thesis (Vantage point A[2.2]), but in a different way and with a slight change. During

**Emerging view
4-2**

the professional development, I used the research questions in my role as a professional development coordinator to track our individual and collective change and learning (Emerging view 4-1). In this thesis, I use the same questions to track my own learning and change as I develop this thesis that is my own professional development as a teacher, professional development coordinator and researcher. In doing so, the definitions of the terms ‘teachers’, ‘movement’, ‘movement stories’, ‘engaging in professional development’, ‘Active Movement’ and ‘change’ (Info-site 4-1) remain the same. However, the term ‘during the professional development’ extends beyond June 2006 to encompass the duration of this thesis.

By making these changes, the research questions for this thesis can also be read as:

- *What are my movement stories when I engage in this thesis?*
- *How do the movement stories change during the thesis?*



Chapter 5

Learning journeys of a professional development coordinator: Developing the learning journeys design

Preview

In this chapter, I discuss my role as a professional development coordinator in creating a design for the learning journeys. I then explain the design and discuss the implications of this design as a design for emergence.

Movement
story 5-1

Creating a design

[1] Learning in the new roles

Part of my roles as professional development coordinator and researcher included designing the learning journeys as professional development in collaboration with the teachers. This involved identifying and articulating the starting points of the learning journeys as well as the frameworks that would guide us in our learning journeys. At the same time, it involved developing methods and tools for collecting and analysing data to create professional development solutions and movement stories from which a thesis would emerge.

The outcome that I was aiming for from the above activities was an emergent design that would give the teachers and I the freedom to explore meaningful possibilities in our learning journeys and, at the same time, make decisions that were both logically and ethically defensible.

{2} Representing the design

 *Figure 5-1 shows a diagram of the learning journeys design in terms of the elements that make up the design and the processes or activities I carried out to develop the design. This is one of many ways in which the design can be represented.*

I have classified the elements into categories I call starting points, frameworks and explorations. I identified the starting points as conceptions of the learning journeys, the notion of professional development as change, the Active Movement programme and the need for a theory of change. I articulated the frameworks to be used as the research questions and complexity theory in a theory of change, with liberating structures and Fullan's (1999) fusion of change forces as the

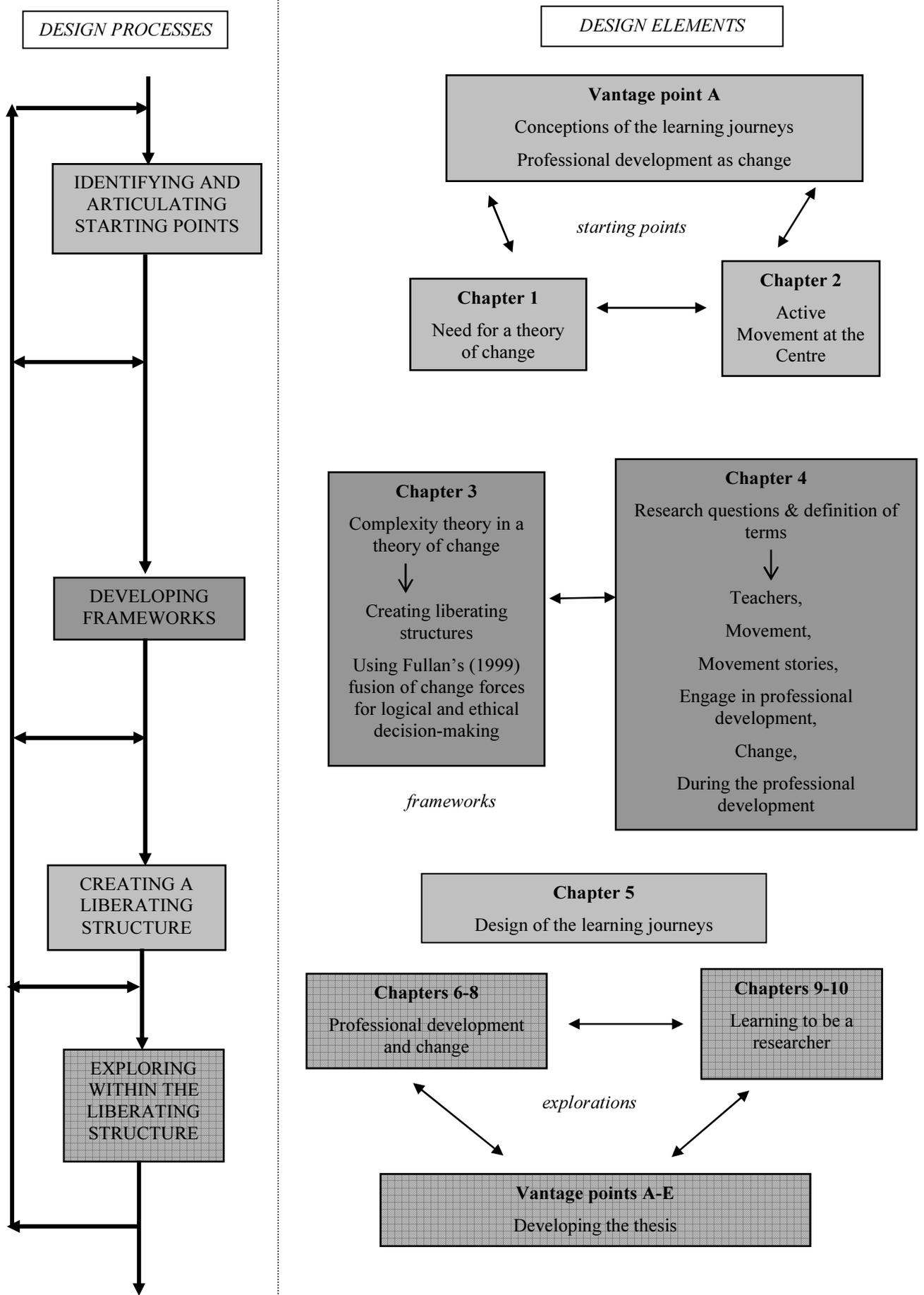


Figure 5-1: Diagram to show relationships among different design processes and elements

Movement story 5-1

strategies for dealing with complex change. At the same time, the explorations that have contributed to the design included the various professional development activities (Chapter 6), our learning in and about change in practice (Chapters 7 & 8) and my learning to be a researcher (Chapters 9 & 10).

The process of developing the design did not take place in a sequential or linear order. Instead, it involved repeatedly, iteratively and often simultaneously engaging in different activities related to the different elements. To put it differently, the design emerged from a process of constantly making sense of what was happening or had happened as I engaged in the design process and deciding what to do next. I view these sense-making and decision-making processes as attacking incoherence by creating connections and knowledge (Fullan, 1999) at an individual level.

See Movement story 10-2 for sense-making process

Info-site 5-1: Attacking incoherence as Fullan's (1999) seventh change lesson

According to Fullan (1999), the on-going pull and push of change forces (Movement story 3-2) can lead to overload, fragmentation and incoherence that manifest in a sense of confusion. He argues that "those who are successful work at meaning-making" (p. 27) do so using both top-down and bottom-up strategies that focus on attacking incoherence by creating connections and knowledge. Fullan gives two examples of such strategies, which I interpret as being applicable at individual and collective levels.

The first involves processes that convert tacit knowledge to explicit knowledge (Info-sites 3-1 & B-1) because these processes bring "knowledge into the open to be shared". In my interpretation, the knowledge conversion process creates knowledge while the sharing of knowledge creates connections among different people.

The second example is conducting data-based evaluations of performance. He adds that, in the context of a school or company,

"when collaborative cultures examine these data in order to make changes based on the information, they become clearer about how well they are doing. Indeed, they become more clear about their values, goals and what they should be doing." (p. 27)

Implications of the learning journeys design as a design for emergence

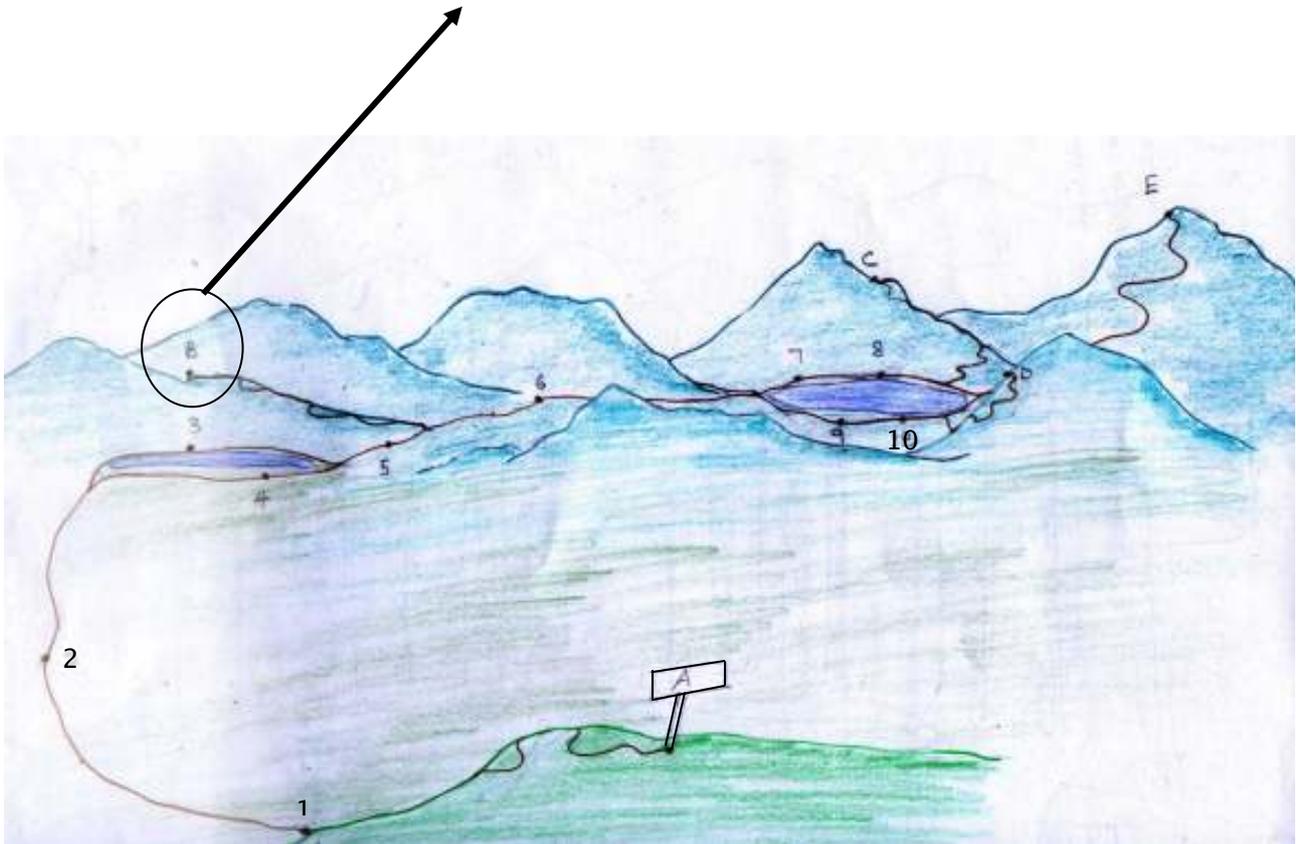
Bogdan and Biklen (1998) describe research design as “a plan of how to proceed” (p. 49). Yin (2003) describes it as

“a logical plan for getting from here to there where here may be defined as the initial set of questions to be answered, there is some set of conclusions (answers) about these questions. Between “here” and “there” may be found a number of steps, including the collection and analysis of data.” (p. 19).

The design of the learning journeys can be described as a design for emergence, that is, a logical plan for getting from here to somewhere, where here represented the starting points and somewhere the possible and initially unknown outcomes of the professional development and thesis. Between here and somewhere were major steps that can be broadly classed as understanding the starting points, developing frameworks, creating the liberating structure to explore the professional development and research possibilities, and exploring the possibilities within the liberating structure. In other words, the learning journeys design can be described as a plan that did not tell the teachers and I exactly where to go; only where to start, when to stop and how to make decisions and act in ways that were meaningful, logical and ethical. It was a plan for a journey into the unknown. According to Lincoln and Guba (1983, in Patton, 2002), such a plan requires “a high tolerance for ambiguity and uncertainty as well as trust in the ultimate value of what ... analysis will yield” (p. 44).

Vantage point B

Views of the planning phase: Looking back and ahead



Preview

In this vantage point, I reflect on Chapters 1 to 5, and discuss the emergence of inter-weaving views and purposes in the learning journeys and my emerging knowledge about theory of change. I also evaluate my role as a professional development coordinator in planning for the learning journeys.

I then look ahead to the living phase of the learning journeys and discuss the challenges that lay ahead.

[1] Methodology: Mixing voices and styles

In Vantage points B to D, I will use a reflective voice in some parts of the text.

The purpose of including a reflective voice is to illustrate that these vantage points are destinations in the thesis where I stop to re-charge, reflect on the learning journeys so far and consider possible destinations for the next phase of the learning journeys. The reflections of the past and for the future are key processes for achieving emergent clarity (Vantage point A[4]) in this thesis.

Movement
story B-1

Looking back: Reflecting on the planning phase

I imagine myself standing at the vantage point, looking back at the journeys so far. I call this phase of the journeys the planning phase, where the focus has been to plan for the learning journeys. The planning process has not been merely a cognitive activity, but one that embodies planning and living. As we plan, we live and as we live, we plan.

Emerging view
B-1

Inter-weaving views and purposes

The stories so far are of my learning journeys to be a professional development coordinator. However, they also serve several other purposes. Firstly, they contribute to the methodology of the research process and this thesis (Vantage point A[3]). They do so by attempting to represent the emergent and messy research process in a coherent form. In other words, they give coherence to an otherwise messy process, and represent an attempt to create order out of the chaos of our experiences.

**Emerging view
B-1**

Secondly, the stories contribute to an articulation of the theory of change for the learning journeys that is the focus of this thesis. They describe and explain the local conditions and strategies that support the local conditions, and lead to an explanation of why and how this professional development is focused on goals that were emergent (Emerging view 5-1). In the process, this thesis posits the learning journeys design as a professional development and research solution suitable for achieving this type of professional development, that is, emergent change and learning.

**Emerging view
B-2**

Emerging knowledge about theory of change

In Vantage point A and Chapters 1 to 5, I have described some important local conditions and explained why each was important to the development of an overall theory of change for the learning journeys. I have also described strategies for dealing with these local conditions, taken together as a whole, and explained the usefulness of these strategies for dealing with the complexity and uncertainty that can emerge with change. In this discussion, I summarise the above and discuss how a knowledge of the local conditions and strategies can help a professional development coordinator develop a theory of change.

[1] Local conditions

The local conditions included my personal positioning and preferred values (Movement stories 3-1[1] & 3-1-1), the gym programme at the Centre (Movement story 2-1[1] & [2], Emerging view 2-1), the Active Movement community (Movement story 2-1[3]), the use of learning stories (Movement story 4-1[1]), the teachers' common and diverse needs and interests (Movement story 3-1-2) and the role of SPARC (Movement story 3-1-3). They also included the underpinning

**Emerging view
B-2**

philosophical assumptions around notions of learning journey (Vantage point A[2]), Active Movement (Movement story 2-1[2]), change, movement and movement stories (Info-site 4-1).

It is possible to classify the above local conditions into several categories. Table B-1 classifies the above list into three possible categories: philosophical underpinnings, day-to-day realities and emergent local conditions. It is possible that a local condition may fall into more than one category.

Category	Local condition
Philosophical underpinnings	<ul style="list-style-type: none">• my personal positioning and preferred values• notions of learning journey, Active Movement, change, movement and movement stories
Day-to-day realities	<ul style="list-style-type: none">• the gym programme at the Centre• the Active Movement community• the use of learning stories
Emergent local conditions	<ul style="list-style-type: none">• the teachers' common and diverse needs and interests• the role of SPARC• notions of learning journey, Active Movement, change, movement and movement stories

Table B-1: Categories of local conditions

Philosophical underpinnings refer to the beliefs and values that underpin life at the Centre or what ideas mean to those involved in the learning journeys. The day-to-day realities are facets of life at the Centre that affect or are affected by the learning journeys. The emergent local conditions are facets of the learning journeys that did not exist or were not considered crucial before the learning journeys; they emerged only during the learning journeys and represent new and additional factors to be taken into consideration with the intended change.

What is the value of categorising the local conditions? Perhaps, its value lies in that fact that it can help professional development coordinators recognise what can count as a local condition in a professional development effort. Articulating the details of the philosophical underpinnings and the day-to-day realities represents a conversion of tacit knowledge to explicit knowledge (Info-site B-1).

**Emerging view
B-2**

This knowledge conversion can help us to understand the tacit knowledge that exists at the Centre and hence find ways to fit the professional development ideas with these conditions (Emerging view 1-1). Articulating the emerging local conditions means considering factors that are likely to become local conditions in the professional development effort, factors that should not be ignored but instead be integrated into the professional development effort.

Info-site B-1: Nonaka and Takeuchi's (1995) knowledge conversion processes

According to Nonaka and Takeuchi (1995), knowledge conversion involves interactions between tacit and explicit knowledge. They suggest four modes of knowledge conversion:

- Socialisation, which converts tacit knowledge to tacit knowledge,
- Externalisation, which converts tacit knowledge to explicit knowledge,
- Internalisation, which converts explicit knowledge to tacit knowledge,
- Combination, which converts explicit knowledge to explicit knowledge.

Nonaka and Takeuchi argue that individuals learn by converting knowledge and that organisational knowledge creation emerges from the spiral process of knowledge sharing and amplification across individual, group and organisational levels. In other words, organisational knowledge creation involves movements between the different types of knowledge and across different levels of knowledge.

They stress the role of organisations to provide enabling conditions that facilitate group activities so that the spiral process of knowledge sharing and amplification can take place. These enabling conditions are intention (or purpose), autonomy (or agency), fluctuation (or creative chaos), redundancy (or overlapping structures and functions) and requisite variety (or diversity).

[2] Strategies

There were two sets of strategies that I have identified so far to address the above local conditions. The first set were the need to have liberating structures and the use of Fullan's (1999) idea of fusing ideas, power and moral purpose (Emerging view 3-2). These strategies were intended to give the teachers and I the freedom to be creative in our learning but in ways that were logical, ethical and meaningful for ourselves and for others. The other set were the research questions which were intended to help me track the learning and change that took place during the learning journeys (Emerging views 4-1 & 4.2).

**Emerging view
B-2**

I argue that these two sets of strategies were decision-making strategies that complemented each other in the sense that the first focused on decision-making in and for the professional development while the second focused on decision-making in and for the research into the professional development. Their different focus, when taken together, meant that the overall theory of change would support both the professional development and research facets of the learning journeys. This suggests that if a professional development effort includes both professional development and research components, then strategies need to be developed for both components so that the strategies complement each other.

**Emerging view
B-3**

Evaluating the stories so far: Voices in the learning journeys

The stories of my learning journeys as a professional development coordinator focus on my learning to create a plan for the learning journeys. The learning and the plan that eventually emerged took place in collaboration with others, including teachers, theorists and SPARC. The perceptive reader may notice that many of the others' voices are missing in the stories and may wonder what this means. It may suggest that I did not engage the teachers in the process of planning for the learning journeys as much as I should have, and perhaps that may be so.

Looking back, I cannot help but wonder if this may have been my way of managing the risks associated with the learning journeys, although I admit it was not something that I had intended. As an inexperienced professional development coordinator, I did not know how to plan for or manage a project like this. This was something I learnt along the way. Involving the others in the entire planning process would have added to the complexity of the learning journeys, and with a

**Emerging view
B-3**

thesis at stake and responsibility for a research grant, perhaps I was tacitly not prepared to take that risk. This may have been an unconscious strategy to manage the risks I faced in journeying into the unknown.

However, reflecting on the experience of being a professional development coordinator and the learning that came with the experience, I can now say that I would feel more comfortable about letting others in more on the planning process in future learning journeys if they wish to. I believe developing this thesis has helped tremendously. Perhaps, embarking on the professional development and developing this thesis involved knowledge conversion processes that Nonaka and Takeuchi (1995) write about (Info-site B-1). Based on their model, tacit knowledge from the experience of living the learning journeys is converted to explicit knowledge in the form of a thesis, which can then be converted back to tacit knowledge in future experiences conducting professional development with other teachers, and so on. This cycle of learning attacks incoherence (Info-site 3-1) in a way that simultaneously creates continuity and change. It is a manageable learning strategy that can grow and include others beyond Learning journeys in Active Movement.

**Movement
story B-2**

Looking ahead: The living phase

From the vantage point, I look ahead at the learning journeys to come. What do I see? The landscape that the teachers and I have explored during our learning journeys as professional development looks vast. During our explorations, which I call the living phase, we have told some of the stories we lived and not others. To develop this thesis, I have to make choices about which stories to tell and how to tell them.

Emerging view
B-4

The challenge ahead for the thesis

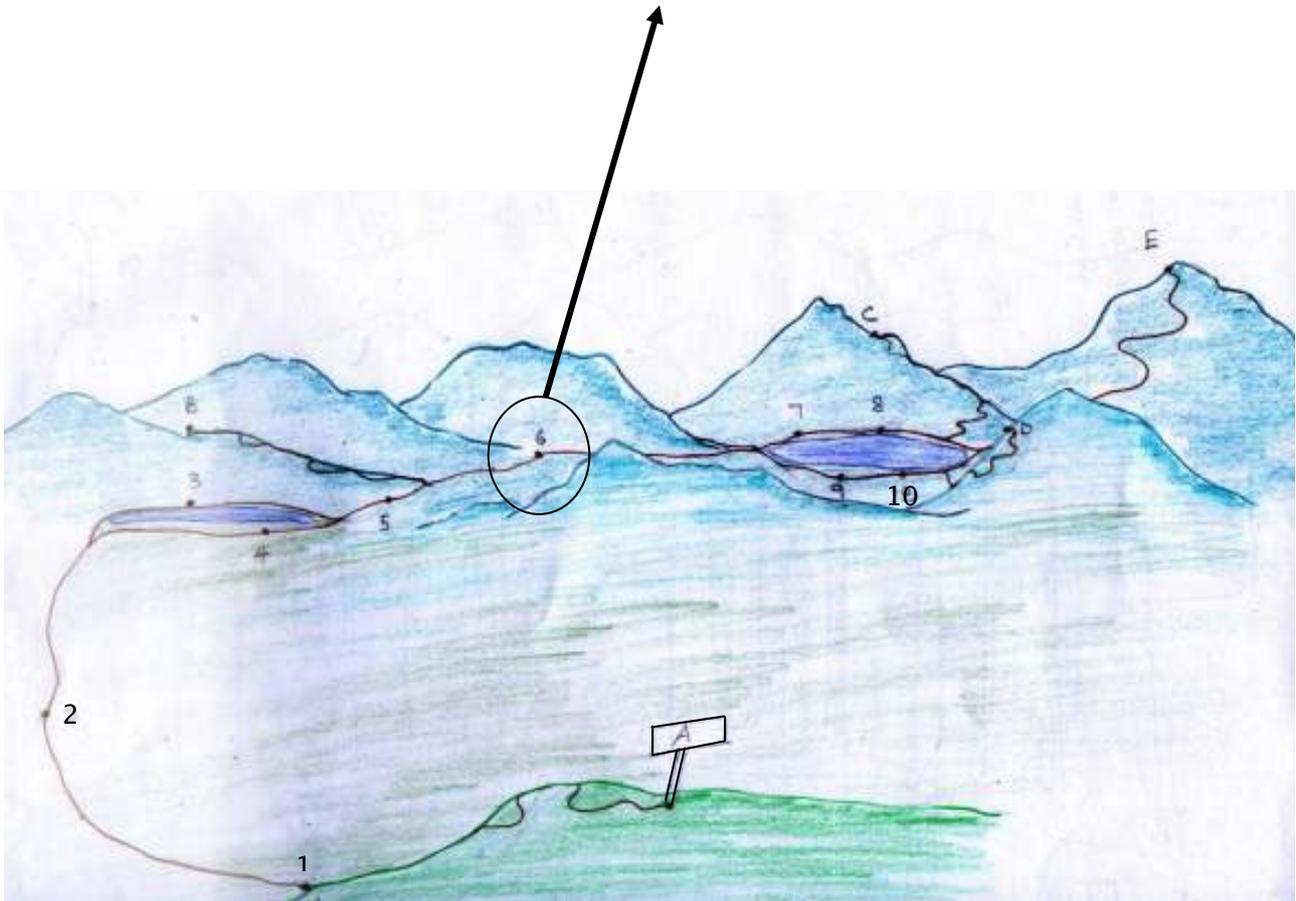
In the living phase, I tell stories of the professional development, the changes we made to our practice and my learning to be a researcher. The story of professional development in Chapter 6 provides a glimpse of the various explorations that teachers embarked on in their own learning journeys in the vast landscape seen from vantage point B, and represents the overall learning journeys. The stories of changes to our practice in Chapters 7 and 8 illustrate two collective learning journeys emerging from the juxtaposition of people, events and activities related to the professional development. They are stories of organisational knowledge creation, in which teachers' and children's voices can be clearly heard. The stories of my learning to be a researcher in Chapters 9 and 10 represent another facet of my learning journeys. The challenge for this thesis is to strive for emergent clarity (Vantage point A[4]) as I develop the arguments from these diverse stories.

Section 3

Living the learning journeys

Chapter 6

The overall learning journeys



Preview

In this chapter, I summarise the teachers' professional development and discuss the professional development model that emerged from it. I also summarise the significant research milestones and discuss its contribution to this thesis. Finally, I discuss the contributions of the teachers' professional development, the model and the research milestones to the overall theory of change.

[1] Methodology: Using tables to describe events in a narrative

In this chapter, I summarise the story of the overall learning journeys, which is made up of the teachers' professional development and my research into the professional development. I will describe the two facets of the overall learning journeys separately to simplify the description.

In the two stories, I also introduce a different way of representing my description in a movement story, that is, in the form of tables as shown in Tables 6-2 and 6-3. Each description and its interpretation together constitute a narrative or movement story since it meets the structure of a movement story (Vantage point A[4.2]), and has the three features that Elliot (2005) considers as criteria for a narrative: chronology, social context and meaning. The chronology is visible in the table while its social context and meaning are embedded in the relationship between the description and its interpretation. The purpose of using a table as a form of representation is to reduce the description of the narrative to meet the practical constraints of this thesis while still highlighting the contributions of the narratives to the thesis.

Info-site 6-1: What is a narrative?

According to Elliot (2005),

“a narrative can be understood to organize a sequence of events into a whole so that the significance of each event can be understood through its relation to that whole. In this way, a narrative conveys the meaning of events.” (p. 3)

Elliot describes the three key inter-related elements of a narrative as:

- chronology, that is, a narrative is a representation of a sequence of events rather than a mere description of a situation,
 - meaning, that is, a narrative “communicates the meaning of events or experiences through the use of evaluative statements and through the temporal configuration of events” (p. 15)
 - social context, that is, a narrative is “usually told in a specific social context for a particular purpose” (p. 15)
-

Movement story 6-1

The teachers' professional development

[1] Participating in projects

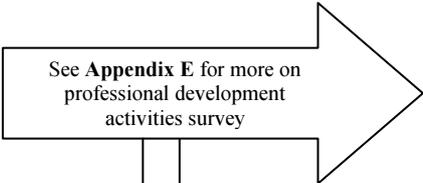
We started our professional development with two team projects in April 2005.

The preschool teachers had just changed the gym roster so that there would be two teachers during gym times and we decided to monitor and evaluate this new roster as our first activity. The nursery teachers started their own project of tracking the nursery children's motor development, and in this way, learn about motor development and milestones and how to help children progress.

In July 2005, I conducted a survey to find out what professional development activities the teachers were interested in. Based on this survey, some of the teachers were interested in pursuing some of

these activities as their own professional development projects. For example, Frances

and Jemima wanted to look into the history of the gym programme, addressing the question *How did our gym programme come to be the way it is?* They later called their project *Timeline of the gym programme*.



See Appendix E for more on professional development activities survey

In August 2005, we added another aspect to our professional development. All teachers were free to choose any Active Movement-related activities or projects that we were interested in as individual or as a small group. By then, SPARC had approved our research grant, which meant that we could organise extra non-contact for teachers to work on our projects. Although there were many problems associated with this, the extra non-contact had given interested teachers the opportunity to work on their projects. Table 6-1 below summarises some of the projects the teachers explored.

Movement story 6-1

Teacher(s)	Project title
Frances & Jemima	Timeline of the gym programme
Meeka	Video learning stories
Hanin	Exploring the use of ICT in Active Movement
Manu	Monthly video gym summary
Little Ted	Monthly gym focus summary
Little Ted & Hanin	Photos of gym room set-up
Frances & Jemima	Learning from Gymbaroo
All	Visits to the park
Bron & Hanin	Gym time song in te reo
All	Teacher-helper scheme
All	Exploring theoretical frameworks in Active Movement

Table 6-1: Summary of teachers' professional development projects

[2] Participating in Centre life

While the idea of engaging in projects appealed to me, I was aware that not all teachers were interested in creating and engaging in their own projects for various reasons. To include all teachers in the professional development and to give value to learning that takes place as we went about our teaching lives, I included participating in Centre life as a valid way of participating in professional development. It implied that when teachers engaged in everyday activities such as facilitating and evaluating gym times, facilitating children's engagement in movement, writing children's learning stories related to Active Movement or writing monthly summaries of our activities, we were engaged in professional development.

Participating in Centre life was the predominant form of professional development for the new teachers, Angela, Bron, Kerry and Rosemary. Angela and Bron joined us in January 2006, seven months after we started our learning journeys, while Kerry and Rosemary joined the team in April 2006, two months before we ended.



[3] Participating in monthly meetings

Movement story 6-1

Over the fourteen months of professional development, the teachers had ten professional development meetings. The purpose of the meetings was to provide a means for sharing and discussing ideas, as well as for maintaining on-going professional conversations and generating new ones. In other words, the meetings served as a useful form of conversation of and for professional development in a group context. Table 6-2 summarises the focus topics for the meetings.

Meeting	Professional development activities during meeting
PDMtg1 23 rd May 2005	sharing overall concept of the professional development as 'Playing with our Active Movement knowledge system' (group activity & sharing)
	discussing how to systematically monitor and evaluate the new gym roster (group activity & sharing)
	sharing the nursery teachers' monitoring of children's motor development
PDMtg2 4 th July 2005	systematically monitoring and evaluating the new gym roster (group activity (analysing and sharing)
PDMtg3 22 nd August 2005	exploring conceptions of Arnold's (1979) theoretical framework as framework for Active Movement (group activity & sharing)
	introducing individual/small group projects (whole group activity)
PDMtg4 10 th October 2005	using Arnold's (1979) framework in teaching and learning cases (group activity & sharing)
	feedback on <i>The Holding Shirt story</i> (whole group sharing)
PDMtg5 21 st November 2005	celebration of teachers' learning for 2005
PDMtg6 31 st January 2006	using adapted Arnold' framework to analyse children's learning stories
	sharing our evaluations of the learning journeys and gym programme so far
PDMtg7 6 th March 2006	planning to implement, monitor and evaluate teacher-helper scheme
PDMtg8 20 th March 2006	developing our strategic plan
PDMtg9 10 th April 2006	first review of teacher-helper scheme
	dialogue on teachers' roles during teacher's choice and children's choice
PDMtg10 12 th June 2006	review of teacher helper scheme

Table 6-2: Summary of professional development meetings

The focus topics and activities emerged from a variety of sources. For example, our explorations into a theoretical framework for Active Movement emerged from the KWHL survey (Movement story 3-1-2[1]) and the



Managing Learning journeys in Active Movement: Developing theories of change in professional development and change professional development activities survey (Movement story 6-1[1]). In the latter survey, five out of eight teachers had expressed interest in gaining knowledge about Active Movement, and this activity ranked fourth in the survey. It subsequently became the focus of some of our meetings.

Movement story 6-1

Our focus topic on the teacher-helper scheme, on the other hand, was an emergent priority based on the teachers' agreement to implement the idea.

See **Chapter 8** for movement story on the teacher-helper scheme

[3.1] Articulating our shared values

I decided to focus part of our first meeting on a dialogue to share what the concept of “Playing with our Active Movement knowledge system” meant to us as individuals and as a team. Figure 6-1 shows a diagram I created and shared with the teachers to frame our dialogue.

<p>Professional development in Active Movement</p> <p>↓ revolves around the idea of ...</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">INTENTION</p>	<p>intentional level</p>	<p>What are we doing?</p>
<p>playing with our Active Movement knowledge system</p> <p>↙</p> <p>which can be viewed as ...</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">CONCEPT</p>	<p>conceptual level</p> <p><u>Key question:</u> What images, memories, ideas, feelings, thoughts, stories and impressions come to mind when we think about “playing with our Active Movement knowledge system?”</p>	<p>What does it mean to me?</p>
<p>↘</p> <p>a knowledge web</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">ANALOGY</p>		

Figure 6-1: Conceptual framework for professional development

I gave the following reasons for focusing our meeting on this topic:

Movement story 6-1

- It provides a focus for our professional development.
- It allows us to clarify what is meaningful to us.
- It allows a diversity of meanings and values so that each teacher can have her understandings of the concept.
- It provides a basis or framework for developing shared understanding.
- It provides a framework for creating value at individual, group, community and organisational levels.



The focus on sharing what the above concept meant to us emerged as a platform for articulating our shared values.

These shared values

were “supporting each other” and

“learning from each other”, which became

important indigenous sensitising concepts (Patton, 2002) around which much of my other future analyses were based and emerged as the benchmarks for on-going evaluation of the professional development (Emerging view 4-1).

See **Movement story 7-1[4]** for more on the value of the new gym roster as our shared values

[4] Developing a strategic plan for the gym programme

During the sixth professional development meeting, Little Ted and Mary, the centre manager, alluded to the idea of developing a strategic plan for the gym programme, which I saw as a plan for improving the gym programme. As the professional development coordinator, I saw an opportunity to use the idea of the strategic plan as a way of continuing with the professional development beyond June 2006, which was when I had planned to stop using the SPARC funds for the professional development. By creating a connection between our professional development and the idea of a strategic plan, we could continue with some of the activities by incorporating it into our normal teaching life without any extra funding. The teachers agreed to the idea of developing the strategic plan and, from a list similar to that in Table 6-1, chose the following ideas to be included in the plan:

**Movement
story 6-1**

- implementing the teacher-helper scheme,
- writing a monthly summary of our gym focus along the lines of our existing programme summary,
- organising regular visits to the parks and walks around the neighbourhood for both nursery and preschool children,
- starting a photo library of our fortnightly gym room set-up, and
- creating a monthly video summary of the gym focus.

In March 2006, we implemented the teacher-helper scheme and during our eighth meeting, we discussed some of the issues we might possibly encounter when we tried implementing the other four ideas. We then used this as a basis for creating a collective agreement on the order in which we were going to implement these other ideas. By the time we finished our professional development, we had also made it possible for teachers to organise regular visits to the park.

**Emerging view
6-1**

The emergent professional development model

During first half of the learning journeys, the teachers could consider themselves as being involved in professional development if they

- *participated in Centre life by planning, conducting and evaluating gym times, facilitating children's learning in the gym room and outside, and writing learning stories about children's engagement in movement activities (Movement story 6-1[2]),*

**Emerging view
6-1**

- *participated in monthly meeting to discuss and dialogue theories, ideas and issues related to Active Movement (Movement story 6-1[3]), and/or*
- *participated in small group or individual Active Movement-related projects based on teachers' own interests (Movement story 6-1[1]).*

Teachers were allowed to choose and change the form and level of participation that fitted with their professional and personal lives, with participation in Centre life being the minimum level of participation. This idea represented a model of professional development based on varying degrees of participation. This model was congruent with the idea that our Active Movement community was a community of practice (Emerging view 2-1). According to Lave and Wenger (1991), members in a community of practice participate at varying levels, from peripheral to full participation.

Later, in anticipation of the end of the funding, the teachers agreed to change the focus of the professional development so that some of the ideas we had generated and tried out could be incorporated as part of Centre life (Movement story 6-1[4]). The shift in focus also resulted in a shift in the nature of the professional development, from one that gave teachers opportunities to try out our ideas in our own practice to one that focused on collaboratively developing our shared practice.

The emergent professional development model can perhaps be seen as an outcome of the learning journeys and a professional development solution. I view it as the learning model that co-emerged with the theory of change as we lived our learning journeys (Movement story 1-1[3.1]). It is a liberating structure (Movement story 3-2[3]) because it gave the teachers the freedom to choose the levels of participation in the learning journeys. At the same time, it was a model

**Emerging view
6-1**

based on Fullan's (1999) fusion of change forces (Movement story 3-2[4]) because it focused on bringing about change in ways that took different teachers' interests in mind and on creating value for individual teachers, for the teachers as a team and for the organisation.

**Movement
story 6-2**

Significant research milestones

[1] Summarising the milestones

When?	What?	Details
July 2005	I created "The Holding Shirt Story".	This is the first movement story I created and distributed to teachers, parents and others outside the community. Following the dissemination of this story, I included 'a story for change' to the notion of movement story.
September 2005	I presented the progress of my thesis at a research forum at the Christchurch College of Education.	This was the six-month thesis presentation for all students engaged in a thesis.
October 2005	I created a movie "Active Movement at FUNDamentals Preschool".	I showed this movie to parents, teachers and children. Although I wanted to share this with people outside the Centre, I was unable to do so because I did not have the technology to mask out the faces of children whose parents did not give me permission for their children to be in the movie.
November 2005	I participated in a research fair at the College.	I created posters to share "The Holding Shirt Story" and other teachers' stories and movies from the learning journeys. Participating in this activity gave me the idea of teachers celebrating our learning together during the fifth professional development meeting, which later contributed to the emergence of the idea of a strategic plan for the gym programme.
January 2006	I created "Change lessons: Playing with the gym roster".	This is the second movement story that I created. Its emergent purpose was to push for the re-introduction of the teacher-helper scheme.
April 2006	I created the document "Active Movement at FUNDamentals Preschool".	I created this document as a chapter of my thesis, and later saw the value of distributing it to parents and teachers.
July 2006	I created summaries of the learning journeys, and identified and summarised possible movement stories from the learning journeys.	I created these summaries as part of parents' night at the Centre. These summaries contributed to the idea of creating a learning journeys folder to showcase the teachers' professional development to parents, teachers and others and to the first main idea for my thesis.
August 2006	I articulated my first main idea for my thesis.	My first main idea was "participating in a community of practice is a useful way to engage in professional development".
September 2006	I completed the movement story "Moving towards sustainable practices".	This movement story continues from the story "Change lessons: Playing with the gym roster".

Movement story 6-2

November 2006	I changed my main idea.	The second main idea is “having a theory of change for our professional development can help us to negotiate complex change and develop our own professional development solutions”. This is the main idea for this thesis.
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Table 6-3: Summary of significant research milestones in the learning journeys



[2] Contributions of the research milestones to the thesis

The contributions of some of these milestones to this thesis can easily be stated as they are connected to other events and stories already described. For example, “The Holding Shirt Story” contributed to the notion of movement stories (Movement story 4-1[1]), which is a key organising structure in this thesis (Vantage point A[4.2]). The movie and the document versions of “Active Movement at FUNdamentals Preschool” have contributed to the articulation of the gym programme (Movement story 2-1), which I have identified as an important a local condition in the overall theory of change (Emerging view 2-1). My participation in the research fair created an idea for a professional development activity to celebrate and share our learning (Table 6-2), an idea that was influenced by Hargreaves’ (2000) assertion on the importance of disseminating the knowledge we create. Later, this sharing activity culminated in the strategic plan for the gym programme, which is part of a professional development solution emerging from the overall theory of change (Emerging view 6-1). The creation of the summaries of the learning journeys contributed to the development of the main idea (Table 6-2).

There are other milestones whose contributions to this thesis will emerge in subsequent chapters as their connections to stories and events have not yet been told at this point in the thesis. For instance, the contribution of the presentation of my progress in September 2005 will become clear in Movement story 10-1. The contributions of the movement stories “Change lessons: Playing with the gym

**Movement
story 6-2**

**Emerging view
6-2**

roster” and “Moving towards sustainable practices” will unfold in Chapters 7 and 8.

Contributions to the overall theory of change

The events, activities and milestones in Movement stories 6-1 and 6-2, and the professional development solutions that emerged from these, were outcomes of the learning journeys. In other words, they did not exist before the learning journeys, were not part of normal Centre life and would not have emerged had there been no learning journeys. Therefore, I argue that these events, activities, milestones and professional development solutions can be viewed as emergent local conditions (Emerging view B-2) in the overall theory of change. After these emergent local conditions emerged, were viewed as significant and acted upon, they became embedded in the philosophical underpinnings or the day-to-day realities at the Centre.

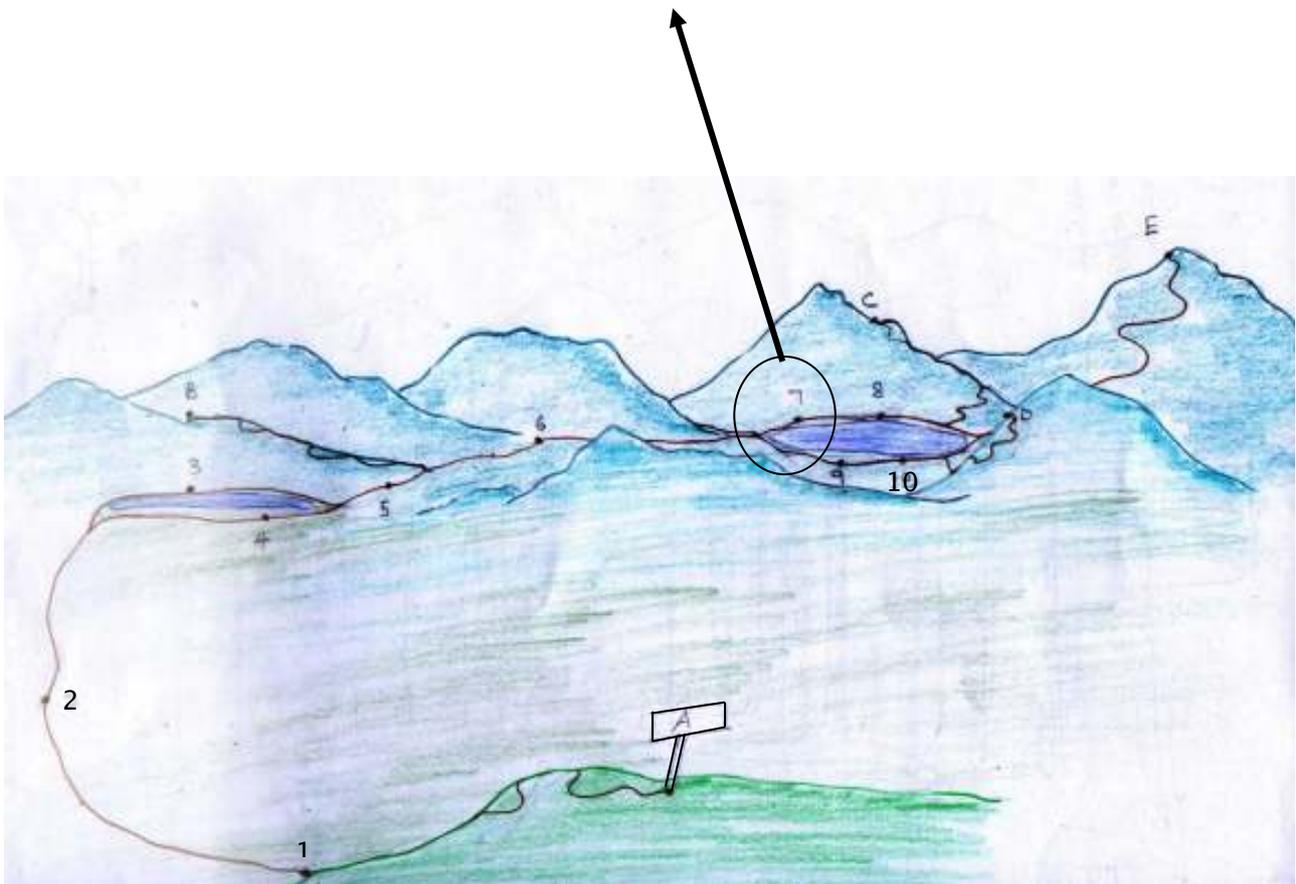
As an example, the teachers’ shared values became both the sensitising concept for my research and the benchmark for the teachers’ professional development (Movement story 6-1[3.1]), and in the process, became part of the philosophical underpinnings of the learning journeys. As a second example, the adoption of the professional development model that included participating in projects (Movement story 6-1[1]) meant that the day-to-day realities of organising extra non-contact for teachers needed to be addressed. As a final example, the change in the notion of movement stories arising from The Holding Shirt Story, affected the philosophical underpinnings of the research questions and the day-to-day realities of data collection and analysis (Movement story 4-1).

**Emerging view
6-2**

However, it is not clear from the available data whether the emergent local conditions lasted beyond the learning journeys or ended with the end of the learning journeys. In other words, there is no data to evaluate whether the emergent local conditions were temporary or became permanent local conditions.

Chapter 7

Teachers' first collective learning journeys: Changing, monitoring and evaluating the preschool gym roster



Preview

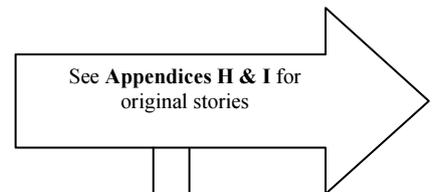
In this chapter, I tell the story of how the teachers, including myself, collectively changed the preschool gym roster, evaluated the change and articulated what we valued about the new roster. From this story, I discuss the theory of change for this collective learning journeys, introduce the idea of a graphic reconstruction and evaluate the contribution of the professional development in the change.

[1] Methodology: Retelling the stories

The movement story in this chapter is a modified version of the interim movement story “Change Lessons: Playing with the gym roster”, which I completed in January 2006. It is also part of a bigger story, “Moving towards sustainable practices”, which I wrote in October 2006 (Table 6-3). The former was a story written to push for the re-introduction of the teacher-helper scheme, that is, it was a story *for* change (Info-site 4-1). The latter, on the other hand, was a story to describe, explain and evaluate the teacher-helper scheme from its origins in the change in the gym roster; it was a story *of* change (Info-site 4-1). Both stories were written with the teachers as intended audiences and have been distributed to the teachers for their feedback.

In this thesis, I retell these two stories in Chapters 7 and 8 respectively. Chapter 7 tells the story of the change we made to our preschool gym roster and what happened when we linked this change to the professional development. Chapter 8 tells the story of the teacher-helper scheme that emerged from the change in our roster.

I use the notion of retelling as a means of growth and transformation (Clandinin & Connelly, 2000); as I retell a story, I relive the experiences to discover new learning about managing professional development and change. In this thesis, retelling the stories means that while the essences of the stories have remained the same, there are three differences between the original versions and the thesis versions.



Firstly, the structure and descriptions of the stories, as well as some interpretations *in* the stories (Vantage point A[4.2]) have been altered slightly to make the stories simpler to understand for the purposes of developing this thesis. Secondly, some of the interpretations *of* the stories (Vantage point A[4.2]) have been expanded to reflect the purposes of this thesis, that is, to test the main idea (Vantage point A[2.2]) and to contribute to knowledge about managing professional development and change (Vantage point A[1]). Thirdly, in Chapter 8, I have re-analysed the data to include some facets relevant to this thesis that were not in the original version of “Moving towards sustainable practices”. All these changes are necessary because I created the original versions *before* I developed the main idea for this thesis (Table 6-3). As a result, some facets of the stories relevant to this main idea were not present in the original versions.

**Movement
story 7-1**

Changing the preschool gym roster

[1] Introducing the gym roster

Gym time was introduced into the Centre programme in January 2003, about five weeks after the centre opened. In those early days, many teachers had the idea that I was going to conduct gym time because of my experience with teaching physical education. However, sometime in 2003, the supervisor at that time decided that all teachers should take turns conducting gym time and group time, the other structured activity in the Centre’s programme. This led to the creation of the teaching roster, a roster that is now very much entrenched in the preschool teachers’ practice. It is not clear when the first teaching roster, which included a roster for gym time, was introduced but by 2004, it had become normal Centre practice. Figure 7-1 shows a version of the gym roster that was updated in April 2005.

Based on this roster, between 9am and 10am on any particular morning, there would be one teacher conducting gym time, another conducting group time, one moving between gym and group time and one teacher having a morning break.

Making sense of roster

Movement story 7-1

	Monday	Tuesday	Wednesday	Thursday	Friday
Group time	Hanin	Titanya	Little Ted	Humpty	Jemima
Gym time	Jemima	Humpty	Titanya	Little Ted	Hanin
Music	Little Ted	Titanya	Humpty	Hanin	Jemima
Numeracy & literacy	Titanya	Humpty	Titanya	Humpty	Manu
Nappies	Hanin	Titanya	Jemima	Manu	Little Ted
Afternoon group activity	Jemima	Hanin	Little Ted	Manu	Little Ted

Figure 7-1: The old teaching roster as at April 2005

I had an insight into the limitations of having one teacher in the gym room in September 2004 when I was conducting my research investigation, “Journeys with Hoops” (Movement story 3-1-1). For this project, I conducted gym time on my own over a two-week period, teaching the children a basic hoop dance and working together to create variations of the dance. During this time, I “found that my attempts to teach children various aspects of the hoop dance during teacher’s choice were constantly frustrated by interruptions, late arrivals and negative group dynamics” (Hussain, 2004f, p. 12).

I attributed my frustration to a combination of factors. One of these factors was that there was only one teacher to conduct the activities and manage everything else that took place during that time, from dealing with toilet accidents to comforting a child who was upset at his/her parent’s leaving to sorting out disagreements among children.

By then, Jemima had taken over the role of supervisor, and when I spoke to her about this matter then, we were both quite aware that we could not do much to

change the situation. *We did not have enough enrolment to justify*

Making sense of situation

**Movement
story 7-1**

employing another teacher so that we could have teachers to support each of the teachers conducting gym time and group time.

[2] The winds of change

The winds of change blew in April 2005. By then, another teacher, Manu, had joined us and another was likely to join us soon. On 11th April 2005, as part of my staff appraisal, I suggested that we could restructure the way we ran the programme by giving teachers the opportunity to have lunch and non-contact together. In this way, I hoped that the teachers could have more uninterrupted opportunities to engage in informal conversations related to professional practice.

Jemima agreed with my views and spoke to me about it two days later. I recorded my memories of our conversations:

“Jemima ... said that she’d read my appraisal worksheet and liked the idea I made about structuring opportunities for teachers to have lunch and non-contact in pairs so that we could have deeper conversations about professional matters. She said she would be looking into the matter, extending this idea to gym times and group times since Manu has joined us and another teacher may join us very soon.

She said that at the moment, she can’t observe my gym times and vice-versa because we’re both doing either gym time or group time on the same days. She agreed with me when I said that it was one thing to read what someone else had planned and something else to observe and support the person implementing the plan.” (E-journal, 13th April 2005)

This conversation moved me to ask the question of how we could schedule the gym roster so that there would be opportunities for everyone to observe and learn from each other. I used this question as the objective for reviewing “the way we schedule teachers to take gym times” in an internal review of gym time on 18th April 2005.

On that very same day, Jemima drafted a new roster, which included changes to gym time and other aspects of the teachers’ practice. In this new roster, Jemima created the terms ‘lead’ and ‘support’ teachers to indicate the roles of the two teachers conducting gym time. By the end of that week, the teachers had looked

Movement story 7-1

at the draft and made the changes they wanted. I helped to type out the new roster and on Tuesday, 26th April 2005, we implemented the new roster for the first time. It had taken a little over two weeks to move from generating the idea to implementing it. Figure 7-2 show the first version of the new roster.

	Monday	Tuesday	Wednesday	Thursday	Friday
Group time	L: Little Ted S: Titanya	L: Titanya S: Hanin	Little Ted	Humpty	Jemima
Gym time	L: Jemima S: Hanin	L: Humpty S: Little Ted	L: Titanya S: Hanin	L: Little Ted S: Jemima	L: Hanin S: Little Ted
Music	Little Ted	Hanin	Titanya	Humpty	Jemima
Numeracy & literacy	Titanya	Humpty	Humpty	Titanya	Humpty/Jemima
Nappies	Hanin	Titanya	Jemima	Little Ted	Shared
Afternoon group time	Manu	Hanin	Little Ted	Humpty	Little Ted

Figure 7-2: The new teaching roster as at April 2005

[3] Monitoring and evaluating the new gym roster

[3.1] Data-based monitoring and evaluation

At the same time we implemented the new roster, I was also looking for an activity to launch our learning journeys. I saw the creation of the new roster as a good opportunity around which we could focus our first professional development activity. However, it took several more weeks to clarify what we could do and how we could go about doing it.

The turning point came when I attended the “Teachers-making-a-difference” conference at the Christchurch College of Education on 29th April 2005, where the keynote speakers spoke about action research and data-based teaching. It was after this conference that I wondered if we could focus our first professional development activity on evaluating the new gym roster systematically and using data as a basis for our evaluation. I spoke personally to all the preschool teachers to find out if they wanted to do this, and they agreed. It took me a further four weeks to plan this activity, which I attributed to



Movement story 7-1

being new to the idea of conducting data-based monitoring and evaluation in a team setting.

During our first professional development meeting on 23rd May 2005, the preschool teachers discussed how we were going to go about with this process of systematic and data-based monitoring and evaluation. We decided on what data to collect and how each teacher would contribute to this data collection process, and shared with the nursery teachers our plan. Six weeks later, on 4th July 2005, we collectively analysed the data we had gathered and shared our analysis with the nursery teachers.

See **Appendix G** for more on methods for data collection and analysis of new roster

[3.2] Experienced-based monitoring and evaluation

In November 2005, as I was writing the interim movement story, “Change lessons: Playing with our gym roster”, *I realised that before we started systematically collecting data to monitor and evaluate the new roster, we had already been informally monitoring and evaluating it based on our experiences with the roster.*

Making sense of data

The teachers had shared their experiences with the new roster on two separate occasions - during a staff meeting on 9th May 2005 and during our first professional development meeting. On the latter occasion, the teachers talked about their experiences before we started discussing our plan to monitor and evaluate the new roster. This sharing took place while we were talking about what the idea of “Playing with our Active Movement knowledge system” meant to us (Movement story 6-1[3.1]).

Movement story 7-1

I also suggested in the interim movement story that perhaps the four-week time lag between the implementation of the new roster and the start of the data-based monitoring and evaluation was a key factor that gave rise to the informal and experience-based evaluation. However, I welcomed this outcome because it highlighted different forms of evaluation that could take place in the course of teaching, which, in turn, further illuminated the complex nature of teaching and learning in a team setting.

[4] Articulating what we valued about the new gym roster

The preschool teachers were generally very positive about the new gym roster. For example, Humpty saw it as a support system that was “absolutely brilliant” while Little Ted thought it was “phenomenal”. Little Ted, in her role as assistant supervisor, also reflected on the change in the internal review of the new roster in July 2005. She wrote

“For the past three months, we have implemented new changes during gym and group (times). There is a teacher who leads and also a support teacher at all times. This has been very successful ... and will continue as set out.” (Core curriculum review sheet dated 18.4.05)



In my analysis of what the teachers said about the gym roster during our staff meeting on 9th May and during the first and second professional development meetings, I realised that it was possible to categorise what teachers valued about the new roster into two inter-related themes. The first theme focuses on the value of the roster as a support system for teachers and the second on its value as an opportunity for teachers to observe and learn from each other. Both these themes first emerged in our sharing of what “Playing with the Active Movement knowledge system” meant to us, and perhaps the fact that this sharing was

See **Appendix F** for more on my analysis of the meeting when teachers first articulated our shared values

Movement story 7-1

inter-mingled with stories of experiences with the new roster may have played a big part in its emergence. I interpreted the value the teachers gave to the new roster as our shared values that we all recognised and considered important in our Active Movement practice.

[4.1] The value of the new roster as a support system for teachers

During the evaluation meetings, the teachers shared the benefits of the new roster as a support system. We gave examples of the ways in which the new roster made it easy for us to support each other. Among

other things, the presence of a support teacher made it easier for teachers to settle children who arrive late, support disruptive children, role

model the activity, write down observations and children's responses and take children to the toilet. *It seemed as if the new*

roster had helped to address the limitations of the old roster that I had earlier expressed as my basis for suggesting change (Movement story 7-1[1]).

See **Appendix G[3.2]** for more on teachers' analysis of the benefits of having a support teacher

Making sense of data

[4.2] The value of the new roster as an opportunity for teachers to observe and learn from each other

The teachers also believed that that having two teachers in the gym room gave us the opportunities to observe and learn from each other. We shared stories about our learning from these opportunities. For example, Humpty told a story of how she and Little Ted had learnt from each other during gym time when Little Ted was supporting her:

“What I tried didn't work but Little Ted was able to take it right down to the correct level. We were throwing the balloons but we ended up giving the younger children one each and you put on the throwing the beanbag song. I mean that works really, really well. You know, you've got another person's ideas.” (PDMtg1P17L3-L11)

Emerging view
7-1

The theory of change for the teachers' first collective learning journeys

Movement story 7-1 describes and explains the implementation of the new preschool gym roster as well as its subsequent monitoring and evaluation.

Bearing in mind that the notion of a theory of change suggests a detailed explanation or prediction of a change effort (Emerging view 1-1), I argue that the theory of change for the teachers' first collective learning journeys is already embedded in the movement story. This suggests that stories and narratives are useful as a means of articulating a theory of change. According to Davis et al. (2000), creating narratives of experiences is a powerful way of weaving diverse experiences, reinterpreting past events, anticipating future events and imposing order and meaning on surprising and unexpected happenings. The juxtaposition of weaving experiences, reinterpreting and anticipating events and imposing order is congruent with the explanatory or predictive function of a theory of change (Emerging view 1-1).

However, it is worth noting the dangers associated with using narratives as a means of articulating our theory of change. Clandinin and Connelly (2000) warn of the risks, dangers and abuses of conducting a narrative inquiry, where narratives are both the phenomena under study and the method of study. The dangers they describe that are relevant to using narratives as a means of articulating a theory of change include: (1) narcissism and solipsism (the focus on 'I'); (2) creating narratives that creates an impression that everything went well and ended well in the stories. Clandinin and Connelly suggest that we need to be wakeful about all our inquiry decisions to avoid these dangers.

Graphic reconstruction of the teachers' first collective learning journeys

[1] Graphic reconstruction as a form of data display

In this discussion, I will extend on Sagor's (2005) use of a graphic reconstruction to summarise the learning journeys in the form of graphic reconstructions.

According to Sagor (2005), a graphic reconstruction is a useful planning tool in action research that shows the relationships among actions to be taken. While Sagor's use of graphic reconstructions suggests its value in creating predictive theories of change, I extend its use as a tool for interpreting the relationships among events, ideas, actions and local conditions in an explanatory theory of change such as this one. In other words, I use a graphic reconstruction as a form of data display. This idea of graphic reconstruction is similar to the idea of pathways diagram that I used in "Journeys with Hoops". The latter represented my interpretations of how the pathway of a particular journey or the pathway of an episode within a larger journey is shaped by events, thoughts and ideas. A pathway diagram served the purpose of identifying factors that have impacted on the stories in a journey (Hussain, 2004f).

However, I recognise several issues with the use of graphic reconstructions.

Firstly, the summarised text in a graphic reconstruction cannot justify the actions or ideas in the same way that a story can. This suggests that when presented together, a story and a graphic representation have the potential to help the reader create a more holistic understanding of a journey.

Secondly, a graphic reconstruction may suggest that it is possible to identify cause and effect among events, actions and ideas. This idea is inconsistent with the notion that in a complex journey, it is difficult to trace the link between cause

Managing Learning journeys in Active Movement: Developing theories of change in professional development and change and effect, and that planned and unplanned change unfold in non-linear ways (Fullan, 1999, in Movement story 3-1[2.2]). Non-linearity in a complex journey can arise from the indirect contributions of other events, actions and ideas that precede the directly contributing events, actions and ideas. It can also arise from the interactions of all directly and indirectly contributing events, actions and ideas, interactions that are unmeasurable.

**Emerging view
7-2**

Thirdly, the graphic reconstruction that we create depends on our interpretations of relationships and contributions of events, ideas and actions. In other words, it is an interpretive tool and consequently, there can be many ways to create a graphic reconstruction of the same story. Furthermore, as the graphic reconstruction below (Figure 7-5) and its key (Figure 7-4) illustrate, it may sometimes be difficult to identify whether an event contributes to another or vice-versa, which suggests the possibility of ambiguous relationships between different events.

For these reasons, I suggest that the purpose of a graphic reconstruction is to simplify the complexity of a journey by identifying factors and relationships that contribute to an event, action or idea without being certain about the nature of their contributions. In other words, a graphic reconstruction is tentative and embodies uncertainty that is characteristic of complexity (Movement story 3-1[2.2]).

The teachers' first collective learning journeys is represented by two graphic reconstructions, whose relationship is shown in Figure 7-3. Figure 7-4 shows the key to understanding Figures 7-5 and 7-6, the graphic reconstructions for the change in the roster and for the monitoring and evaluation of the new roster respectively. I have represented the learning journeys as two graphic

reconstructions instead of one because it is not possible to fit the entire journeys into one page.

**Emerging view
7-2**

Figure 7-3: Relationship between Figures 7-5 and 7-6

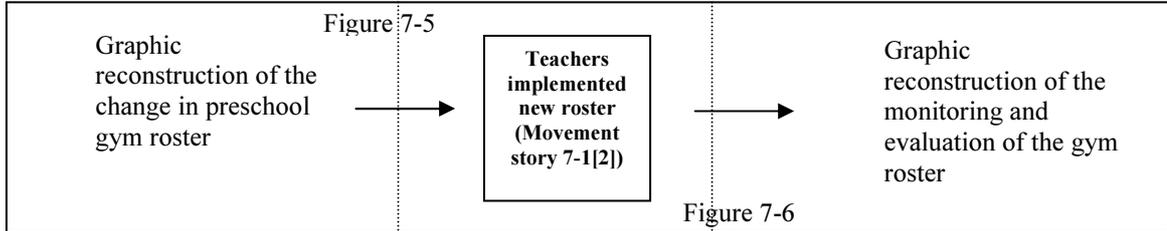
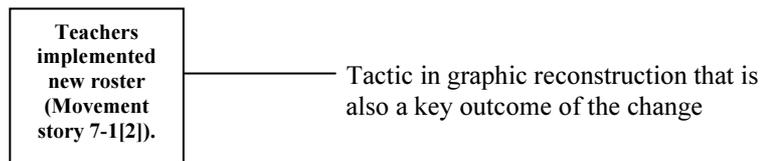
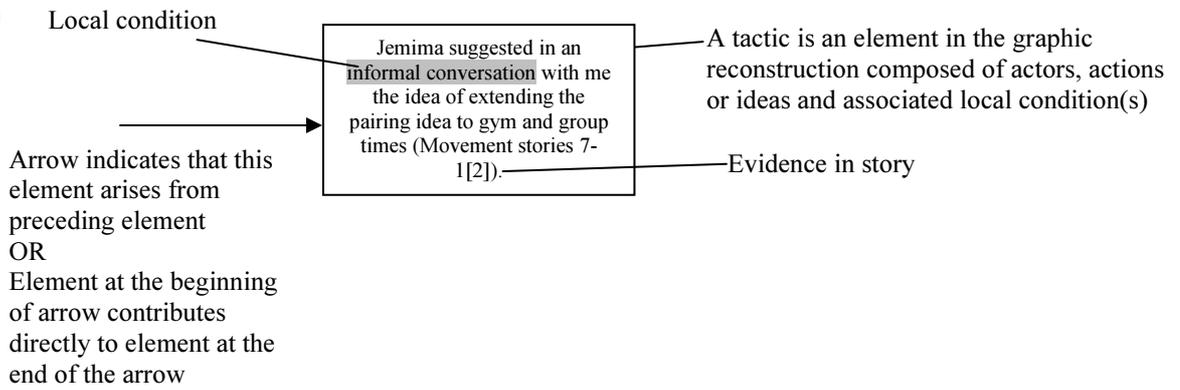


Figure 7-4: Key for understanding Figures 7-5 and 7-6



— ? — Relationship between tactics is ambiguous

Figure 7-5: Graphic reconstruction of the change in the preschool gym roster

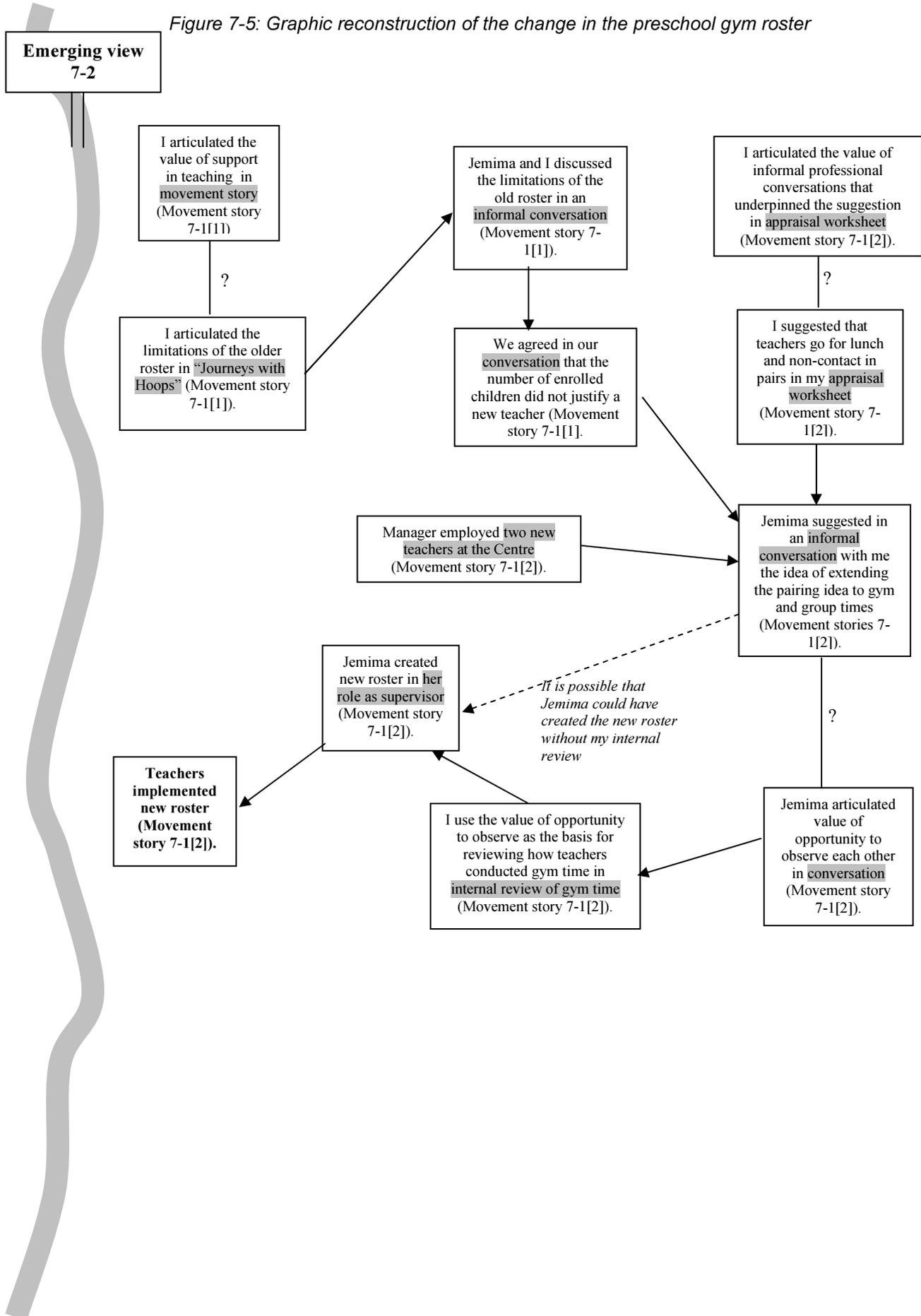
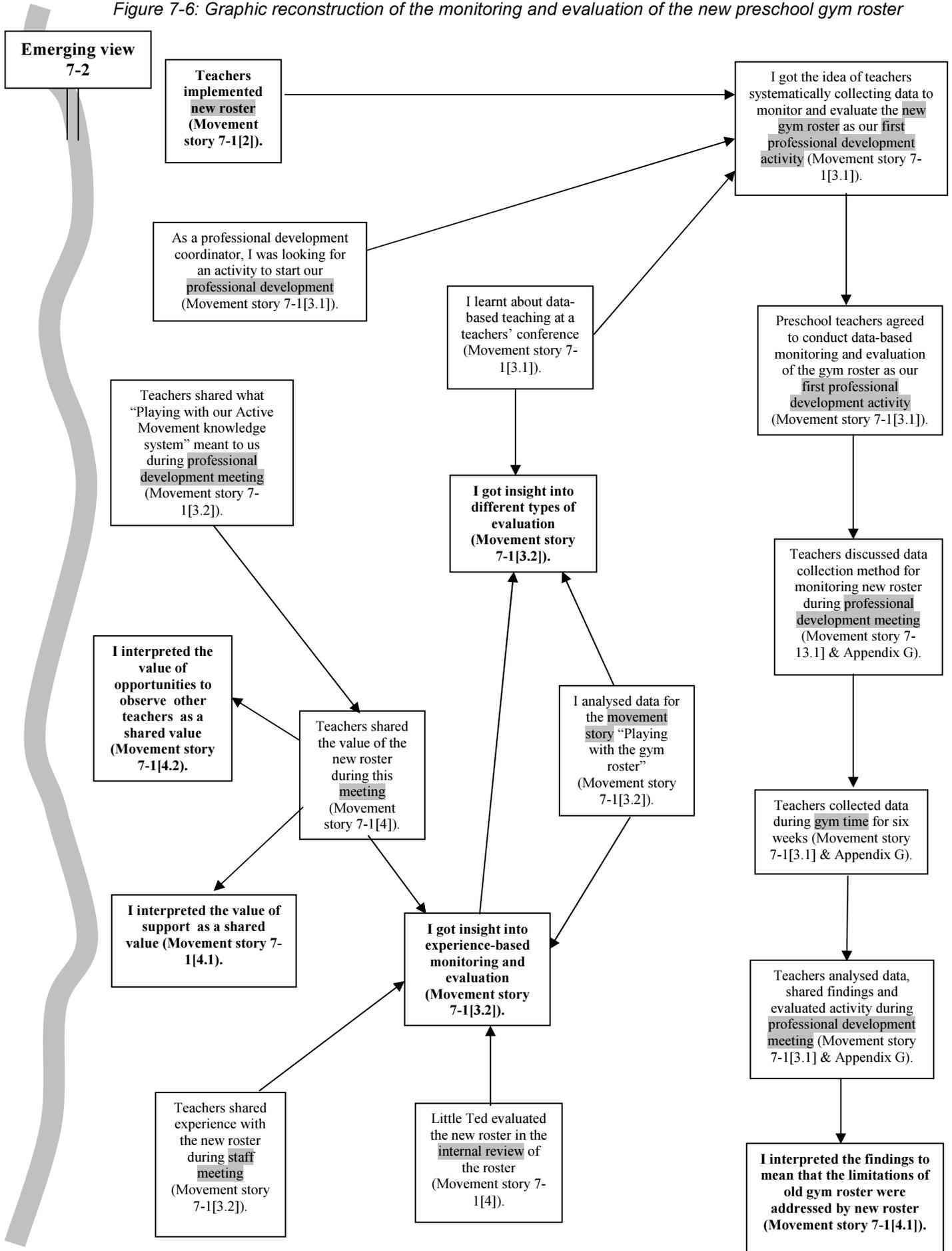


Figure 7-6: Graphic reconstruction of the monitoring and evaluation of the new preschool gym roster



Emerging view
7-2

[2] Graphic reconstruction as a means of articulating theory of change

The graphic reconstructions in Figures 7-5 and 7-6 link local conditions with events that unfolded, actions taken and/or ideas used. It also suggests that each tactic in the graphic reconstruction was itself an emergent local condition since it emerged during the learning journeys and contributed to it (Emerging view B-2). However, bearing in mind that a theory of change is a set of strategies that guide and support the implementation of change (Movement story 1-1[3.2]), can a graphic reconstruction be viewed as a useful way of articulating a theory of change?

The word “strategy” comes from the Greek word “strategos” meaning “the thinking and actions of a general” (Patton, 2002, p. 37). Its root word suggests that a strategy is an action and/or an idea that embodies a purpose and a relationship with the context (or local condition). Since each tactic in a graphic reconstruction is composed of actors, actions and/or ideas and their associated local conditions, each tactic can therefore be viewed as a strategy. Consequently, it is possible to view the tactics within a graphic reconstruction as the strategies associated with a small change or movement within a bigger change. This implies that a graphic reconstruction can be seen as a means of articulating a theory of change in a summarised form.

Emerging view
7-3

Evaluating the contribution of the professional development in the change

The story of the teachers’ first collective learning journeys tells of a change that we made to our existing practice plus an attempt to systematically monitor and evaluate the change. However, the impact of the change went beyond the change

**Emerging view
7-3**

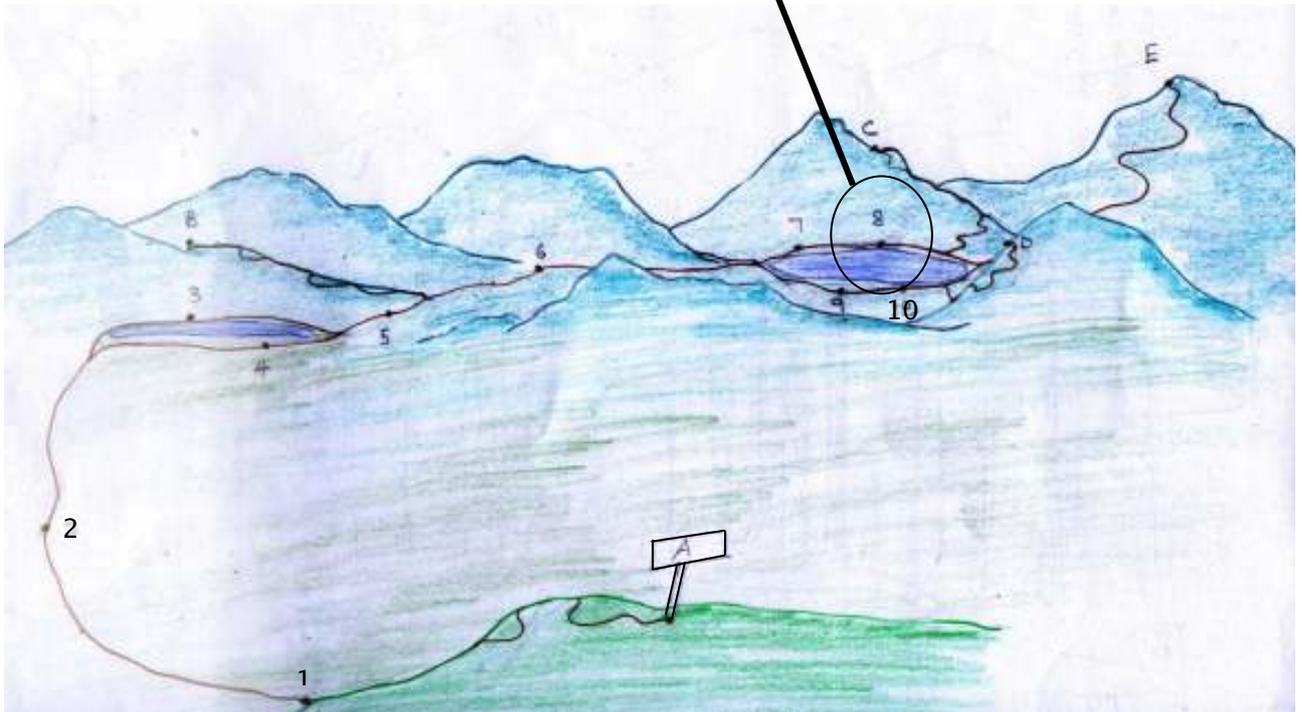
in practice itself (Movement story 7-1[1] & [2]). It included the articulation of the teachers' shared values in our practice (Movement story 7-1[4]) and my emerging knowledge of the different and complementary roles that data-based and experience-based evaluations can play in improving our practice (Movement story 7-1[3]). I see these as important outcomes of the change.

What was the role of the professional development in this story? To put it differently, what would have happened had there been no professional development? It seems likely that we would still have implemented the new roster because, as Figures 7-5 and 7-6 suggest, the emergence of the new roster was not dependent on the professional development. On the contrary, the implementation of the new roster contributed to the first professional development activity.

However, without the professional development, we would have carried out our evaluation of the new roster in the ways that we had always reviewed our practices. This was by talking about it during the staff meeting, as we did on 9th May 2005 (Movement story 7-1[3.2]), and by writing out another internal review, as Little Ted did in the story (Movement story 7-1[4]). Therefore, while it seems likely that the new roster would prevail without the professional development, it appears unlikely that we would have articulated our shared value or that I would have had that insight into the nature of evaluation. These outcomes arose from activities introduced as part of the professional development, not from normal practice. In other words, the professional development did contribute to the creation of new knowledge.

Chapter 8

Teachers' second collective learning journeys: Implementing the teacher-helper scheme



Preview

In this chapter, I tell the story of the teacher-helper scheme, beginning with how the teachers, including myself, came up and tinkered with the scheme. I also discuss the argument I created to make the scheme sustainable, how we subsequently planned, monitored and evaluated a new version of the scheme. From this story, I discuss the theory of change for this collective learning journeys, test the idea of graphic reconstructions in this collective learning journeys, and discuss the implications of the change for our practice.

Movement
story 8-1

The teacher-helper scheme

[1] The emergence of the teacher-helper scheme

The new gym roster was relevant only to the preschool teachers and the monitoring and evaluation of the new roster was intended as a professional development activity for the preschool teachers. However, during our professional development meetings, the preschool teachers had shared our plans of and findings from the monitoring and evaluation process with the nursery teachers, and both groups had traded stories, ideas, hopes and frustrations.

One of the frustrations that was expressed came from Frances, a nursery teacher. She said of her frustration during the nursery children's gym time,

“... I've got so many little ones that want to do so many different things ... and you can't be there to extend them all at the same time ... because you're only one person (in the gym room)”. (PDMtg1P31L9-L12)



With this expression of frustration, the teachers acknowledged that while the new gym roster provided a support system for the preschool teachers, a similar support system was not available for the nursery teachers.

During the second professional development meeting on 4th July 2005, the teachers came up with a solution that would create a support system for the nursery teachers in the gym room, one that did not involve support teachers but instead preschool children.

Some of the teachers shared that they observed some of the preschool children frequently standing on the little wooden gate that separated the preschool from the gym room whenever the nursery children were having their gym time. While no one objected to the preschool children watching and interacting with the nursery

Movement story 8-1

children, we realised that we were constantly reminding them not to stand on the gate so as not to damage it. The teachers discussed ways to prevent damage to the gate and Jemima came up with the idea of having preschool children as teacher-helpers in the gym room to achieve this end and, at the same time, help the nursery teachers during their gym time. The rationale behind this idea was to give the preschool children some responsibility and the opportunity to interact with the nursery children while the latter were having gym time. Jemima suggested that we trial the idea, and we spent some time discussing how we could implement this teacher-helper scheme. The idea of the teacher-helper scheme was born.

[2] Tinkering with the idea

In my interim movement story, “Change lessons: Playing with our gym roster” (Appendix H), I described how the teacher-helper scheme was implemented in its early days. It would involve only the four-year olds as teacher-helpers, and Little Ted sat down with them one afternoon to draw up some rules for them to adhere to while helping out the nursery teachers. The children came up with the rules, which were written down as a contract, and the children signed it as shown in Figure 8-1. Little Ted told me that the children appeared to understand those rules before they signed them.

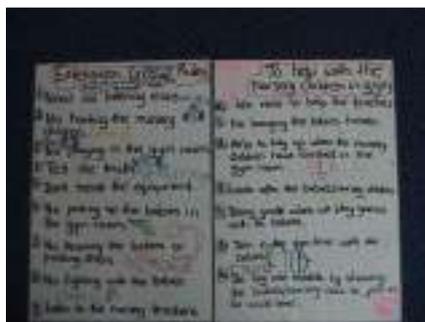


Figure 8-1: The contract with the teacher-helpers

**Movement
story 8-1**

In our discussions on how to implement the teacher-helper scheme, we did not discuss how we were going to monitor or evaluate the scheme. However, I monitored its implementation in my roles as the professional development coordinator and researcher, making observations, taking photographs and talking to the nursery teachers.

In December 2005, about six months after we started the teacher-helper scheme, I spoke to two nursery teachers, Frances and Meeka, separately about the scheme.

[2.1] Frances' views of the teacher-helper scheme in its tinkering phase

Frances said that what she had found valuable about having the preschool children as teacher-helpers was the fact that they could model what could be done with the equipment in the gym room. She noticed that the nursery children were more inclined to copy what the teacher-helpers did and to try out the different equipment whenever the latter were around. She added that lately she had not been getting teacher-helpers to help out and she noticed that nursery children were less inclined to try the equipment.

Frances added that opportunities to spend time with the older children in the gym room had helped nursery children like Jenny, who attended all day, to shoot ahead in their movement abilities over the past few months. In her view, these children got these opportunities to observe and interact during morning gym time as well as at the end of the day when the preschool and nursery children played together in the gym room. She believed that if we did not set up these opportunities for interaction during the nursery's gym time in the morning, the children who attended only the morning sessions would miss out. She indicated that she was eager to work towards providing these opportunities more consistently for the latter group of children.

**Movement
story 8-1**

[2.2] Meeka's views of the teacher-helper scheme in its tinkering phase

Meeka felt that the practice worked really well at the start. However, she added that she had not been having the older children as teacher-helpers because she felt that they seemed to have forgotten that they were there to help out. She thought that the idea of being a teacher-helper had perhaps lost its initial special meaning for the children, so that they were treating this time as another gym time, a time for playing in the gym room among themselves. She felt that, although the idea had potential benefits for children and teachers, it was becoming too much trouble for her to have them there because it meant having extra children to look after.

Meeka also asked if we were still implementing the idea. I told her that many of the children who were initially involved in the scheme had left to go to school, that we would continue to lose others over time, and that we had not really trained others to take their place. *Meeka's question suggested to me that there was a lack*



of clarity as to whether the scheme was still being implemented.

[3] Creating an argument to make the teacher-helper scheme sustainable

After talking with Frances and Meeka, I reflected briefly on what I thought we needed to do to make the scheme sustainable. I wrote in my e-journal on 13th December 2005 and in the story “Change lessons: Playing with the gym roster”:

“I guess for this scheme to work, there needs to be continual monitoring of how it is going and regular induction of new helpers so that it keeps itself going. This is especially so in the initial stages until ... the practice becomes entrenched into our Centre culture and develops a life of its own. Next year, I think I will bring this up with the teachers and see if they want to resurrect this and how we can do this. This natural dying-out resonates with what Fullan (2003) says- that it is one thing to have an idea, it is another thing to make it work. We have thought about the ‘what’ but didn’t put much thought into the ‘how’. In other words, we started trying to put the idea into practice but didn’t nurture it to the point where it takes a life of its own. But all is not lost. We have gained some insight into its potential and why it didn’t work.” (E-journal, 13th December 2005)

Movement story 8-1

Making sense of experience

Looking back, I see this entry as a catalyst that spurred me to change my interim movement story, “Change lessons: Playing

with the gym roster”, from one that described change to one that included an intention to create further change. I did this by ending the story with critical reflections that focused on the multiple value of the scheme, my analyses of the issues and tensions associated with how we had implemented it and my ideas on we could possibly nurture it so that it could become a sustainable practice. I argued that if we believed this practice to be worth developing and nurturing into a sustainable practice, we should subject it to what Hargreaves (2000) calls a process of institutional knowledge-creation that is “more systematic, more collective and explicitly managed” (p. 231, author’s emphasis) than individual teacher’s tinkering with ideas. I compared Hargreaves’ knowledge-creation process with Garmston and Wellman’s (1999) framework for creating ideas and managing actions, and suggested that we had generated a good idea, created a plan for converting the idea into action and implemented the plan. However, we had not clarified our commitment and responsibilities to the idea and plan, and had not worked out a plan for systematically monitoring and evaluating the scheme. This lack of clarification and systematic monitoring and evaluation had led to the natural death of the scheme in its original form.

See **Appendix H** for the critical reflections in the story “Change lessons: Playing with the gym roster”

I distributed the interim movement story to the teachers on 11th January 2006, and on 31st January 2006, during our sixth professional development meeting, we agreed that we would work towards making the teacher-helper scheme sustainable.

**Movement
story 8-1**

[4] Planning and implementing the scheme

On 6th March 2006, we focused our professional development meeting on discussing our plan to make the teacher-helper scheme sustainable. The meeting involved both nursery and preschool teachers, with Frances, Meeka and Manu representing the nursery and Little Ted, Bronwyn, Angela and I representing the preschool. Humpty had left the Centre, Titanya could not attend the meeting and Jemima was still away on maternity leave. Rosemary and Kerry had not yet joined the team at that time.

*Making sense
of experience*

As the meeting unfolded, I became aware that much of the discussion we had revolved around foreseeing and resolving value tensions in implementing the scheme. For example, Little Ted brought up the idea of giving every preschool child the opportunity to be a teacher-helper. The teachers agreed with the value of this idea but many also realised that there were some children who were not ready to handle the responsibilities of being a teacher-helper. The nursery teachers pointed out that having these children in the gym room as teacher-helpers could possibly give the nursery teachers added stress in the gym room. This, in turn, could eventually compromise one of the intended purposes of the teacher-helper scheme as providing support for the nursery teachers in the gym room. Manu, a nursery teacher, described a hypothetical scenario whereby a nursery teacher had to spend considerable time and energy helping a teacher-helper who needed help in the gym room. She was quick to point out that she was not against children learning through exploration or asking for help but questioned if the nursery gym time was the appropriate time for the preschool children to be doing so.

In the above scenario, the nursery teacher would have to closely supervise not only the nursery children, but also the teacher-helpers, a situation that reminded

Movement story 8-1

me of what Meeka said during our conversation in December 2005 (Movement story 8-1[2.2]).

Making sense of experience

In my view, this discussion highlighted the tension between the value of giving every child the opportunity to be a teacher-helper and the value of ensuring that the teacher-helpers could be relied upon to handle the responsibilities of the teacher-helper role. The former would predominantly serve the interest of the preschool children while the latter those of the teachers implementing the scheme. We eventually synergised these tensions so that both parties' interests could be served.

This came in the form of multiple implementation strategies that I articulated in a draft plan of the scheme.

See **Appendix J** for the draft plan of the teacher-helper scheme

One of these strategies involved creating a list of teacher-helpers and classifying them into three groups that reflected the teachers' collective perceptions of the preschool children's readiness to handle the responsibilities of being teacher-helpers. We called the groups the *experienced helpers*, the *helpers-in-training* and the *not-yet-ready-to-be-helpers* group. We organised the children into the three groups taking into account the children's age, their experience with the Centre's culture (which we assumed correlated roughly with how long they had been at the Centre) and the teachers' perception of their disposition for taking responsibility. We also decided that we would review the teacher-helper list every three months so that every child would eventually have the opportunity to be a teacher-helper.

The nursery teachers also decided that they wanted to make teacher's choice a more consistent part of the nursery gym time. At present, teachers' choice was

Movement story 8-1

not a regular part of the nursery gym time (Movement story 2-1[1.3]). *Although the teachers did not share the reasons the nursery gym time did not have a regular teacher's choice, it was reasonable to assume that that it was the lack of support in the gym room that was the primary reason. Having the teacher-helpers in the gym room would address this problem because the teacher-helpers could model the activities for the younger children. To make this idea work, the nursery teachers decided to structure the nursery gym time differently from the preschool gym time (Table 2-1), in this order: (1) opening song/greetings, (2) children's choice, (3) teacher's choice, (4) winding down. This variation from the preschool gym time meant that the teacher-helpers would be able finish their morning tea before joining the nursery gym time and helping out with the teacher's choice activity.*



The teachers also created the new role of the teacher-helper coordinator, which Angela volunteered to take on. This was how the scheme would look like on a day-to-day basis from the teachers' points of view:

“During the preschool morning kai, Angela, the teacher-helper coordinator, will select two children to be the teacher-helpers for the day. As a rule of thumb, she will select one experienced helper and one helper-in-training. She will then ask these children whether they are interested to be teacher-helpers, and if they are, she will remind them of their role as teacher-helpers and direct them to the nursery teacher(s) in the gym room after they have finished their kai.

In the gym room, the nursery teacher(s) will welcome the teacher-helpers and, if necessary, reinforce the rules and the reasons the children are there. It is likely that the teacher-helpers will arrive during the nursery children's choice time. Later, when the nursery has their teacher's choice activity, the teacher-helpers are expected to participate in the activity with the teachers.” (draft plan of the teacher-helper scheme, p. 1)

I created the draft plan two days after the meeting, disseminated it to the teachers for amendments but nobody made any. *My purpose for putting the plan in writing was to articulate what we had agreed upon so that everyone was clear about the purpose of the scheme, how it would be implemented, monitored and evaluated, and what our roles and responsibilities were.*



Movement story 8-1

After the planning meeting, Angela set about getting the necessary tools ready for implementing the teacher-helper scheme. This included typing out the list of teacher-helpers and finding what we eventually called the teacher-helper box to store the list, Angela's notebook and stationery. *In my view, the teacher-helper box was the location that contained important tools for the day-to-day implementation and monitoring of the scheme. Knowledge of the tools and where they were located were important to the success of the scheme.*

Making sense of experience

[4.1] The first day of the teacher-helper scheme

On Tuesday, 14th March 2006, we tried the teacher-helper scheme in its new form for the first time. Meeka wrote a movement story describing her own and the children's experiences on that first day. I reproduce the text below and italicise the texts in her story that represent her interpretations in the story.

Movement story 8-1-1

Kicking around

Observed by Meeka

14th of March 2006

Today we started the 'Teacher helper' programme in the gym. This means that during the second half of the Nursery's gym time we have two older children come in to help the teacher. It is an opportunity for the Nursery children to observe the older children doing activities and things on the equipment that they may not have considered before.

The month's programme focus is on ball skills so I thought an appropriate activity for today would be kicking bean bags. I choose bean bags rather than balls because they are stationary objects and won't roll away. I asked Tony and Merry (the two older children) if they could



**Movement
story 8-1**

**Movement
story 8-1-1**

show the Nursery children how to kick them. So the three of us set off kicking the bean bags around the mat. I encouraged the Nursery children to get involved by drawing attention to what Tony and Merry were doing.

They thought it was neat and soon all of the children had joined in kicking the bean bags.

Monty, Barry and Maximillian were able to balance on one foot and kick the bean bag a little way with their other foot. *This shows that they have increasing hand-eye coordination and balance.*

Ellen was very interested so came over to give it a go. She found a bean bag and put both her feet right next to it. *I believe this is the first time she has observed the idea of kicking. With more observation of the others she will see that she can lift one foot and kick the ball to move it.*

Tony and Merry listened to my instructions and were a great deal of help during this activity. *Without them I don't believe the Nursery children would have understood the activity that was being offered to them.*

The Nursery children were able to learn 'about' movement by observing Tony and Merry kicking the bean bags. The Nursery children were then able to gain new knowledge about how to kick by studying how to do it. Then they began to participate in kicking and began to learn 'in' and 'through' the movement (Arnold, 1979).

The Nursery children have shown that they have learning dispositions known as 'Taking an Interest' as it has motivated them all to get involved in this activity.

Movement story 8-1

The Nursery children are developing “increasing control over their bodies, including development of ... coordination and balance” (Ministry of Education, 1996, p. 86).

Movement story 8-1-1

By being a teacher helper Tony and Merry are developing “a sense of responsibility and respect for the needs and well-being of the group” (Ministry of Education, 1996, p. 70).

What Next? As today was the first day of the teacher helper programme I would recommend that it continues. It was a positive and enjoyable experience for all and obviously benefited both the Nursery children and Tony and Merry.

In her story, Meeka described the purpose of the teacher-helper scheme in terms of providing the nursery children with “opportunity to observe the older children doing activities and things on the equipment that they may not have considered before”.



She also highlighted the multiple value of the activity for herself as the teacher, for the nursery children and for the preschool children. She described the value of the scheme for herself in terms of the older children “being a great help” to her during the kicking activity, which suggested that she considered them to be supporting her in her role as a nursery teacher.

She interpreted the value of the scheme for the nursery and preschool children from several perspectives: the New Zealand early childhood curriculum, Te Whāriki (Ministry of Education, 1996), the learning

dispositions framework (Carr, May & Podmore, 1998) and a possible theoretical framework for Active Movement (Info-site 8-1).

Movement story 8-1-1

Info-site 8-1: Explorations of a theoretical framework for Active Movement

During the professional development, the teachers focused three meetings on sharing and discussing a possible theoretical framework for Active Movement (Table 6-2). We shared what the notion of learning in, through and about movement meant to us, a notion adapted from Arnold (1979) and used in the Health and Physical Education curriculum document (Ministry of Education, 1999). We also explored how we could interpret our observations of children's movement and our learning stories from this perspective.

Movement story 8-1

[5] Monitoring and evaluating the scheme

During our meeting, we had decided that Angela, the teacher-helper coordinator, and the nursery teachers would be responsible for monitoring the scheme and modifying it if necessary. We agreed on the monitoring process using notebooks to collect certain data, and in June 2006, Angela, in her role as teacher-helper coordinator, had this to say about the notebooks in her evaluation of the scheme:

“The notebook for the preschool children is ongoing and each day we write in the notebook the day, the date, which nursery teachers were in the gym and the preschool teacher-helpers. At times, we ask the preschool children about what they did in the gym room with the nursery children and we are able to record this in the notebook. The notebook for the nursery teachers started off really well and soon died off. I think both notebooks are a big help when looking at how the teacher-helper scheme is working. The comments in the book help the preschool teachers work out the children who are really working well and the ones who are not. It also helps us to see what activities they did in the gym room.”
(Angela, Professional development: Teacher-helper scheme)

Movement story 8-1-2

Angela's evaluation of the scheme

In June 2006, just as we were ending our professional development, Angela undertook her own evaluation of the teacher-helper scheme and produced her own report of the scheme. She produced her report after talking to the nursery teachers, taking some photographs and analysing

the notebooks that were used to monitor the scheme. I reproduce the relevant parts of her report below:

Movement story 8-1-2

“I feel that implementing the teacher-helper scheme has helped the teachers as well as the younger and older children in the nursery and the preschool. I have talked to the nursery teachers about how they feel it has been working, and Frances has said that she thinks it’s fantastic at times when the preschool children show the nursery children things that Frances cannot do.

She also commented that when there is only one teacher in the gym with the nursery children and when the teacher-helper comes in to help, it is harder for her to watch both the teacher-helpers and the nursery children. We may need to decide whether we put a teacher-helper in the gym when there is only one nursery teacher taking gym time.

I feel that the nursery time in the gym room with the teacher-helper is helping the nursery children develop physical and cognitive skills from watching the teacher-helpers and trying for themselves. I feel that this system has been working very well with the preschool children enjoying going into the gym room with the nursery children. The nursery children are benefiting from the role modelling of the preschool children’s actions, and getting to know the children before they transition to the preschool can help them in knowing familiar faces.

A lot of the times when you ask a child to be teacher-helper, some of the other children ask to be teacher-helper as well. I found that by showing the children the name sheet and telling them that you are going to give this child a turn today because they had not had a turn for a while helped them understand why you were choosing that child.

I have found some of the children have worked well in the gym but others have not. This was to be expected as we were trialling the children that we selected and a further review on the children from this can help us decide where each child should be.” (Angela, Professional development: Teacher-helper scheme)

Making sense of Angela’s report

In her report, Angela wrote of the value of the scheme for Frances as well as the nursery and preschool children. She noted that Frances emphasised the support she received by having the teacher-helper to role model activities on the equipment that she was not able to do herself. Angela noted the physical, cognitive and social values of the scheme for the nursery and preschool children.

Angela also articulated some of the on-going issues with the teacher-helper scheme in terms of the pressure it placed on the nursery teachers having to supervise both the nursery children and the teacher-helpers

and the need to regularly review the list of teacher-helpers to ensure that the scheme serve the interests of teachers and children.

**Movement
story 8-1**

[5.1] Reviewing the teacher-helper scheme

During our meeting in March 2006, the teachers had decided that Angela, the nursery teachers and I would review the scheme in April 2006 and again in June 2006. We held our first review meeting on 10th April 2006 and the second, on 12th June 2006, a few days before we ended our professional development.

*Making sense
of the review
meetings*

In my analysis of these meetings, which included listening to the audio-recordings of the meetings, I classified our conversations into the following themes:

- *Value and benefits of the scheme*
- *Implementation issues*
- *Improvements to the scheme*
- *Anticipated future issues*

I concluded that both Angela's evaluation and the teachers' review meetings were similar in the sense that they both included a focus on the value of the scheme as well as implementation issues. However, upon reflection, I suggest that they were different in the sense that Angela's evaluation included references to the data from the notebook whereas our review meetings appeared to deal with teachers' experiences with the scheme. In other words, while the former included recorded data, the latter was based more on tacit, experiential knowledge, a situation that paralleled our evaluation of the new gym roster (Movement story 7-1[3]).

Movement story 8-1

[5.2] Frances' movement story

On 26th April 2006, about five weeks after we re-started the teacher-helper scheme, Frances wrote a movement story about how she observed a nursery child, Monty, observing what a teacher-helper, Jessie, was doing on the equipment and copied the older child's actions. I reproduce Frances' story below and italicise her interpretations in the story. I also include a photograph of the gym room set-up to help the reader visualise the children's movement activities.

Movement story 8-1-3

Learning story about Monty

26th April 2006



Observe:

The preschool have started a new scheme where we have two children from the preschool come in and work alongside the nursery children in the gym. This purpose of the scheme is two-fold: it helps the nursery



**Movement
story 8-1**

**Movement
story 8-1-3**

children get to know the older children and helps the older children to learn to respect the younger children. I generally ask the older children to demonstrate to the younger children what they can do on the various pieces of equipment.

The nursery children were in the gym room having free play, I had asked Jessie an older child to demonstrate what she could do on a certain series of equipment. Jessie did as I asked and went over the bridges, up the tall ladder and swung on the bar, finishing off with jumping down on to the mat. Straight away Monty followed her, she walked over the bridges, up the tall ladder, stretched over to the bar and swung off. She swung for a couple of minutes before jumping down to the ground. I asked Jessie to repeat the series of activities and again Monty followed and did all the same actions.

Recognise:

Monty has developed observation skills, she is able to observe and then follow through with the actions she sees. This is a form of scaffolding that we like to encourage. This also shows that Monty has increasing control of her body, she is becoming very coordinated and able to move in space with confidence and has time and space to practice these skills.

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 initiating, maintaining, and enjoying a relationship with other children- including taking turns and negotiating (p. 70).*

Respond:

Movement
story 8-1

Movement
story 8-1-3

The trial of the older children coming into the nursery gym time has been very successful. We will continue with this scheme as it is helping develop reciprocal relationships with the older and younger children as well as developing the scaffolding of older children repeating an action several times for the younger children to observe.



In her story, Frances articulated the purpose of the scheme in terms of its social benefit for the nursery and preschool children.

She also focused her interpretation on the learning value of the scheme for the nursery child, Monty. Frances suggested that scaffolding by an older child, time and space to practice are important environmental factors that help a younger child to gain increasing control and coordination of her body. She added that the younger child needed to have developed the capacity to observe her environment to learn through observation of the social environment.

[5.4] An accidental discovery

On 5th April 2006, Angela and I accidentally stumbled upon the idea of recording the teacher-helpers' comments about what they did in the gym room. We talked about this and decided to continue recording their comments in Angela's notebook (Movement story 8-1[5]) whenever we could. Later, I analysed the comments and wrote an analysis around the comments made by four of the teacher-helpers. Elijah, a four-year old boy, was one of them. Elijah attended the Centre four full-days a week and had been at the Centre for several years by the time we introduced the teacher-helper scheme. The teachers considered him to be an experienced teacher-helper (Movement story 8-1[4] & Appendix J) at the start

of the scheme. Between March and June 2006, Elijah was a teacher-helper on six different occasions and he made comments about what he did in the gym room on four of those occasions.

Movement story 8-1

Movement story 8-1-4

Elijah, the teacher-helper



The gym room set-up for the fortnight including 3rd and 6th April 2006

Monday, 3rd April 2006

Elijah was in the gym room with Merry. Frances was the nursery teacher in the gym that day. Elijah made these comments after helping Frances in the gym room.

Hanin: What did you do?

Elijah: I was teaching the babies to throw beanbags.

Thursday, 6th April 2006

Elijah was a teacher-helper together with Callum. Rosemary and Angela were the nursery-teachers in the gym room. According to the teachers,

Movement story 8-1

the activities they did in the gym room included throwing beanbags into a bucket, singing action songs and jumping.

Movement story 8-1-4

Elijah: Did big jumping, and all sorts of things.



The gym room set-up for the fortnight including 1st and 3rd May 2006

Monday, 1st May 2006

Elijah was in the gym room with another teacher-helper, Sonny.

Rosemary and Manu were the teachers in the gym room with seven nursery children.

Elijah: Help teach the babies how to go on the climbing frames.

Wednesday, 3rd May 2006

Elijah was a teacher-helper with Alison. It is not known who the nursery teacher was.

Elijah: Teach them to how to go on the equipment. Through the tunnel and under. Did the lion hunt with instrument.

Making sense of story about Elijah

What did the story mean to me as a teacher? Firstly, Elijah's comments suggested to me that he engaged in the activities with the nursery children and was able to talk about it. Secondly, I

**Movement
story 8-1**

**Movement
story 8-1-4**

noticed that Elijah used the word 'teach' in three of the four times he spoke of what he did in the gym room. It suggested to me that he knew what his role was as a teacher-helper and was able to articulate that role verbally. In other words, in addition developing the dispositions of 'taking responsibility' and 'taking initiative', Elijah was able to communicate that sense of responsibility to Angela or I when we asked him what he did in the gym room with the nursery children. To me, his comments exemplified the inextricable mix of tangible and intangible value of the scheme for the teacher-helpers. Using the language of Te Whāriki (Ministry of Education, 1996), Elijah's participation as a teacher-helper can be viewed as an experience that provided him with opportunities to

- *learn with and alongside others (p. 64),*
- *develop verbal communication for a range of purposes (p. 72),*
- *gain confidence in and control of his body (p. 70), and*
- *develop working theories for making sense of the natural, social, physical, and material worlds (p. 82).*

From the perspective of our emerging theoretical framework for Active Movement, Elijah's comments suggest that, in his role as a teacher-helper, he was learning in, through and about movement (Info-site 8-1).

**Movement
story 8-1**

[6] Integrating the evaluation process as part of the Centre's review process

At the end of April 2006, as we were approaching the end of our SPARC-funded learning journeys, I mentioned to Little Ted that I wanted to fully integrate the teacher-helper scheme into normal Centre life. *This was part of my idea of easing the professional development into normal Centre processes, an idea that emerged from the idea of developing the strategic plan for the gym programme (Movement story 6-1[4]).* I mentioned the idea of incorporating the evaluation of the teacher-helper scheme into the usual internal review process. On 17th June 2006, I spoke to Little Ted again, and wrote of our conversation in my e-journal:

*Making sense
of experience*

“I told Little Ted that I’d like the teacher-helper scheme to be added to the list of core curriculum areas to be reviewed. She said that was fine and asked how often I wanted to do it. I suggested the next two reviews to be in September and December this year The subsequent reviews could then be every six months. She agreed with the idea.” (E-journal, 17th June 2006)

However, I added a note of caution in my entry,

“There is no list, at the moment, to remind teachers to review the list of teacher-helpers every three months as we had agreed. But I think that can be done together with the review of children for the older and younger children’s groups. That was what we did during the staff meeting on Monday, 12th June 2006, and having the two lists done at the same time makes it easier to remember. The only thing is to ensure that we remember to review the list every three months since we haven’t written any schedule [to review the list].” (E-journal, 17th June 2006)

**Emerging view
8-1**

The theory of change for the teachers’ second collective learning journeys

The teacher-helper scheme emerged unexpectedly from the change in the gym roster, and its subsequent implementation as part of the gym programme constituted a collective learning journeys for the teachers. The theory of change for this learning journeys is embedded in Movement story 8-1 and the draft plan for the scheme (Appendix H) taken together.

**Emerging view
8-1**

The theory of change for the teacher-helper scheme contains a mixture of explanatory and predictive elements. Using Patton's (2000) classification of theories of change as explanatory or predictive (Movement story 1-1[3.2]), the elements in Movement story 8-1 were articulated after the scheme was implemented and can be regarded as an explanatory theory.

On the other hand, the draft plan was created to articulate how the change was to take place and therefore contributed towards a predictive theory of change.

However, the draft plan did not necessarily explain the rationale for some of the actions the teachers decided upon in our implementation plan. For example, in our discussion to make the teacher's choice activity a more regular part of the nursery gym time (Movement story 8-1[4] & Appendix H), the teachers did not give reasons (1) why there was no regular teacher's choice activity during the nursery gym time, (2) why it was useful to introduce teacher's choice activity with the teacher-helper scheme or (3) why it was a good idea to structure the nursery gym time differently from the preschool gym time. Upon reflection, we made the decisions on how to make these facets of the plan work without explicitly justifying them because the justifications were based on our tacit knowledge of the intended change and the local conditions. In other words, some of the unarticulated rationale was embedded in the teachers' tacit knowledge of how the intended change would fit with the local conditions. This suggests that it is possible for facets of a theory of change to be tacit and/or embedded in the decisions and actions (Movement story 3-2[4.1]). To put it differently, it is possible for a theory of change to manifest itself as a theory-in-change.

Emerging view
8-2

Graphic reconstruction of the second collective learning journeys

[1] Testing the idea of graphic reconstructions

In this discussion, I test the idea of using graphic reconstructions (Emerging view 7-2) as a means of representing a theory of change by summarising the relationships between the different events, actions, ideas and local conditions in Movement story 8-1 and the draft plan to find out emergent issues with the idea.

The graphic reconstruction of the teacher-helper scheme is divided into three phases: tinkering with the teacher-helper scheme, planning and implementing the scheme, and monitoring and evaluating the scheme. Figure 8-2 shows an overview of the graphic reconstruction in terms of the relationships among the three phases and the elements of the first collective learning journeys. Figures 8-3, 8-4 and 8-5 show the graphic reconstruction of each of these phases.

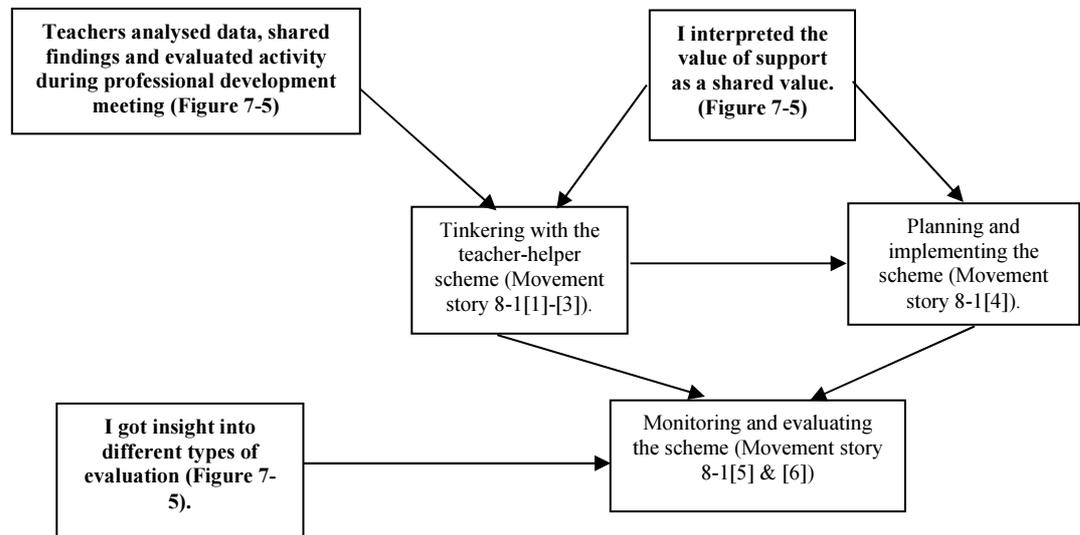


Figure 8-2: Overview of the graphic reconstruction for the teacher-helper scheme

Figure 8-3: Graphic reconstruction of the tinkering phase of the teacher-helper scheme

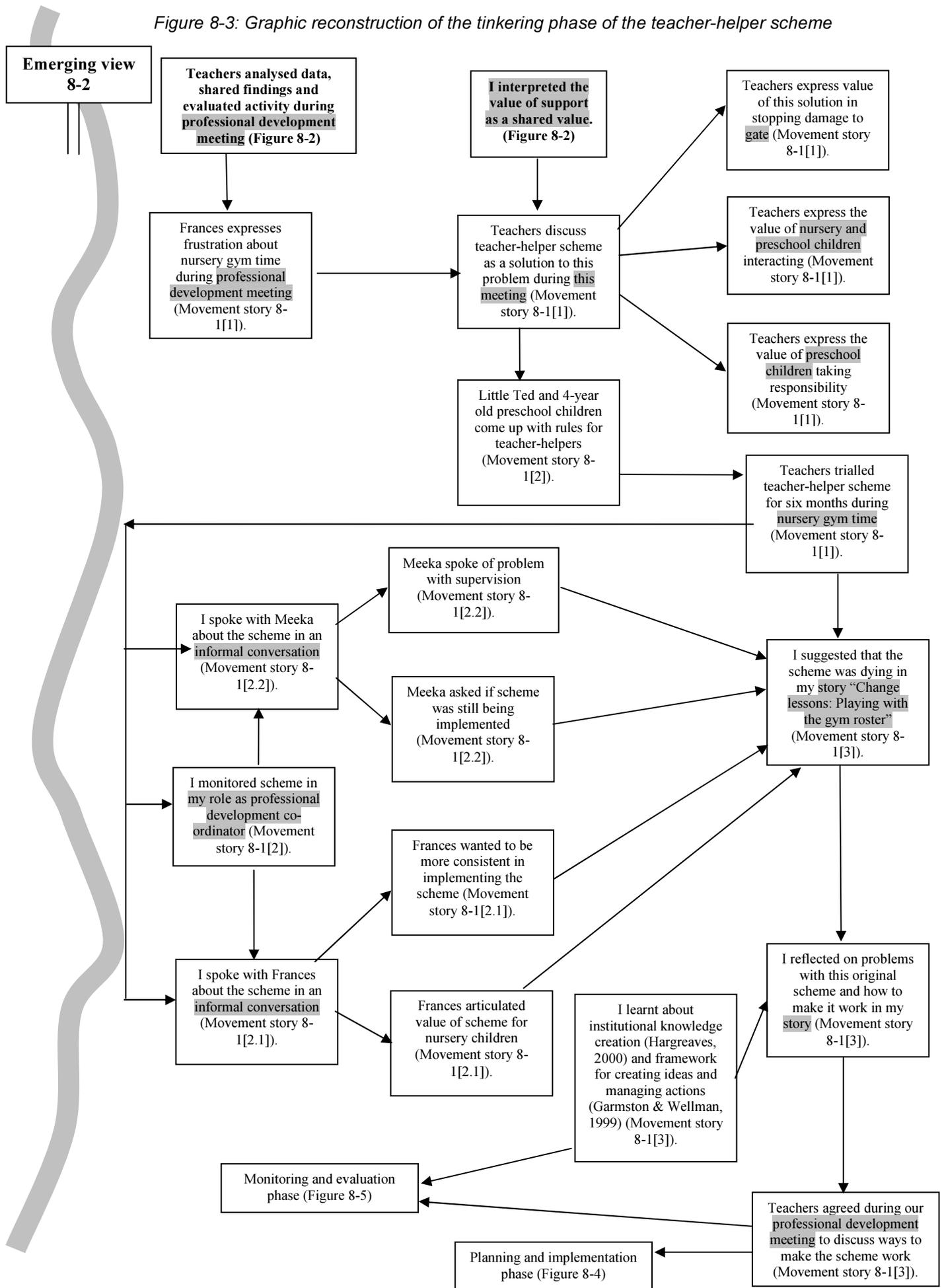


Figure 8-4: Graphic reconstruction of the planning and implementation phase of the scheme

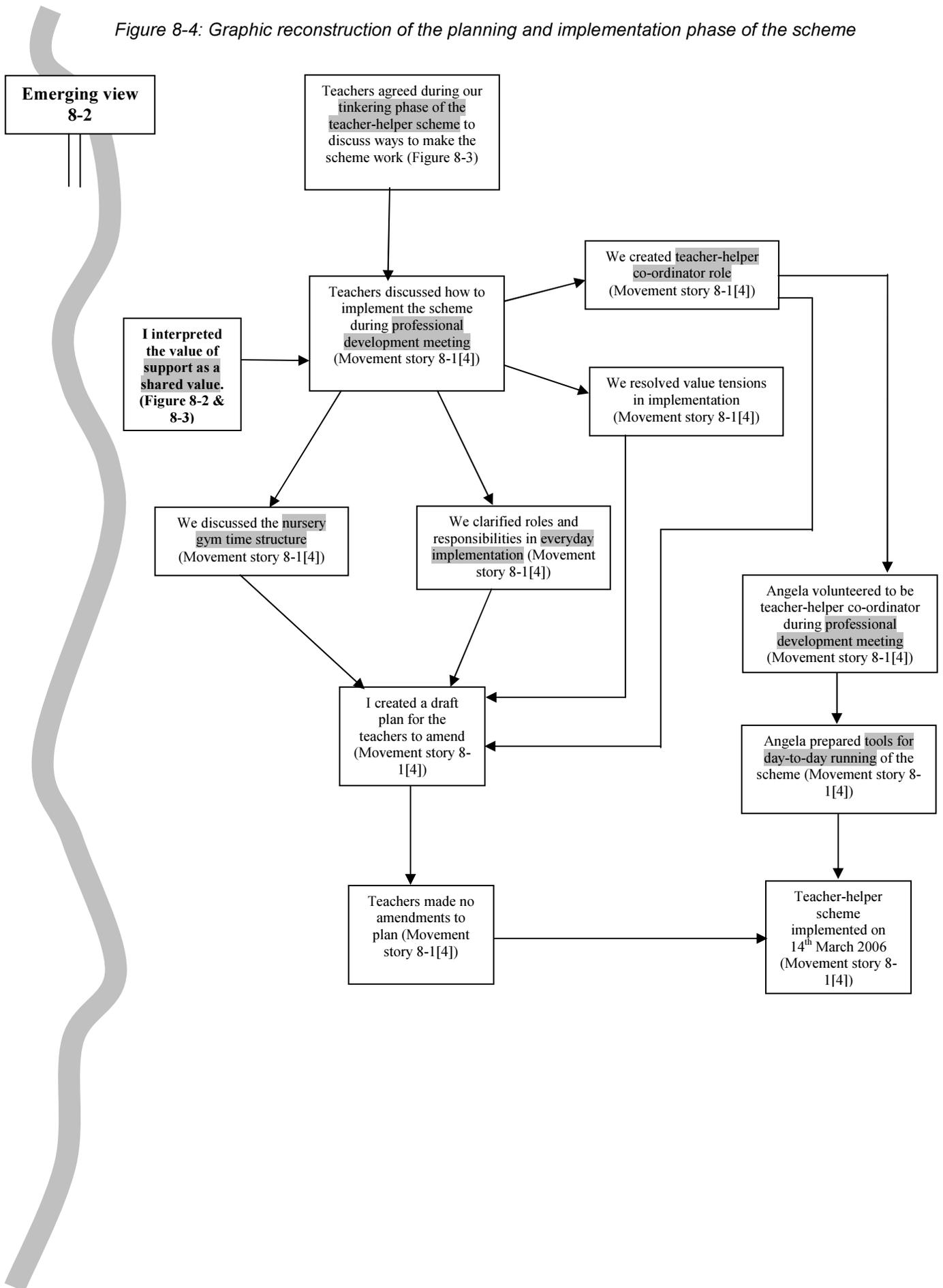
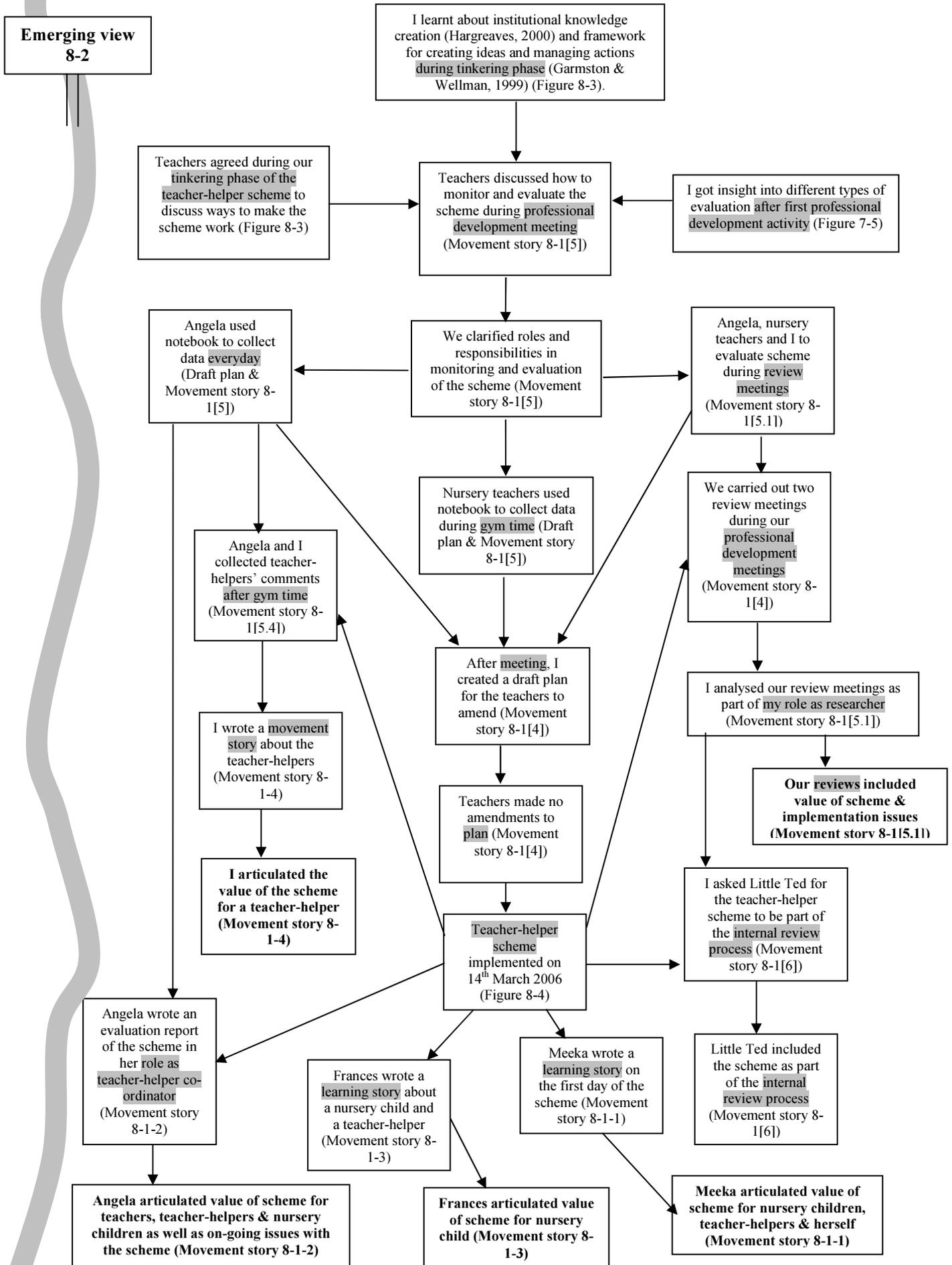


Figure 8-5: Graphic reconstruction of the monitoring and evaluation phase of the scheme



Emerging view
8-2

[2] More issues with the use of graphic reconstructions

Figures 8-3, 8-4 and 8-5 highlight issues with the use of a graphic reconstruction as a means of articulating a theory of change in addition to those explained in Emerging view 7-2. Although a tactic is used to identify the actor(s), action(s) and local condition(s), in practice, it may be difficult to be precise as to what the local condition(s) is/are. In other words, in creating a graphic reconstruction, the local condition(s) associated with a tactic may be ambiguous in the same way that the relationship between tactics may be ambiguous (Emerging view 7-2).

For example, in the tactic labelled “Meeka spoke of problems with supervision” (Figure 8-3), was the local condition “during the informal conversation” or “during the trial of the scheme” or both? The local condition we choose can depend on the juxtaposition of several factors such as our interpretation of events, our understanding of what a graphic reconstruction is or the focus of our graphic reconstruction. As an actor in that conversation, I know the strategic contribution of that tactic to the eventual outcome and I know that the tactic is embedded in the context or local conditions of the Centre and the learning journeys. However, I have difficulty being precise about what the local condition(s) is or are.

The ambiguities implicit in the use of graphic reconstructions highlights Wenger et al.’s (2000) argument that we know more than we can tell and that not everything we know can be made explicit (Movement story 3-2[4.3]). Such an argument is consistent with the notion that human knowledge cannot be complete (that is, there is no truth left unexplained) and consistent (that is, it has no internal contradictions) (Peat, 2002). This, in turn, further implies that we may not be able to completely explain the changes we have made or be complete and consistent when articulating our theory of change.

Evaluating the change and implications for practice

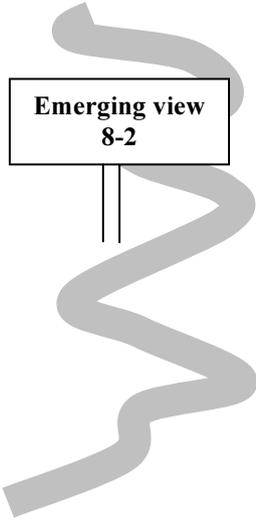
When I completed the story “Moving towards sustainable practices” in September 2006 (Table 6-3), the teacher-helper scheme was still in place. I wrote reflections of the story, which I reproduce here.

“(The teacher-helper scheme) has survived its first six months in its new form and I wonder how long it will continue to survive as our Active Movement community of practice continues to change and evolve. I return my thoughts to my e-journal entry on 13th December 2005 (Movement story 8-1[3]), the entry that had spurred me to push for this scheme in the first place, and to the argument I created to start the process. My personal feelings are that we have thought out the scheme well this second time round, resolving many of the issues that plagued us the first time. Our planning for the scheme (Movement story 8-1[4]) had involved the processes of clarifying commitment and responsibilities and of systematic monitoring and evaluation (Garmston & Wellman, 1999) that I had viewed as part of a process of institutional knowledge-creation (Hargreaves, 2000) (Movement story 8-1[3]).

However, as Angela, Frances and I uncovered, issues will always continue to emerge (Movement story 8-1-2, Movement story 8-1[6]), given that the scheme is embedded in other aspects of Centre life that compete with it for teachers’ time and attention. Below are some of the emergent issues that I believe we will have to deal with in the future. I have articulated them as questions for teachers to ponder upon, or at the very least, be aware of.

- What are the limitations of concentrating the role of the teacher-helper coordinator on one person, in this case, Angela (Movement story 8-1[4])? What has been the impact on this role when she is away on morning breaks and non-contact at the time (as has happened several times) when she is usually working out who the teacher-helpers are? Are there ways of distributing the role among more teachers? What are the implications of distributing the role?
- The process of continual induction of new teacher-helpers takes place in the form of reviewing the list of teacher-helpers every three months and giving children the opportunity to experience what it is like to be a teacher-helper (Movement story 8-1[4] & [6]). However, unlike the internal review of core curriculum areas, there is no schedule to remind us of when this particular review process is to be carried out. In other words, the review of the list of teacher-helpers will only take place when one or more teachers remember that it is due. Is there a danger that this practice can be forgotten when teachers who have taken it upon themselves to remember this leave the centre? What can be done to prevent this outcome if we value the scheme enough to prevent this from happening?

My knowledge of and past experiences with complexity theory tell me that emergent issues and problems are characteristics of a complex reality. This idea resonates with my understanding of what Fullan (1999) calls living at the edge of chaos which he describes as “getting used to some degree of uncertainty” (p. 23). According to Fullan, life at the edge of chaos has both structure and openendedness. Perhaps, if we view emergent issues and problems as the uncertainty in openendedness, then our practice is the structure that exists in the form of our “moral purpose, a small number of key priorities and a focus on knowledge and data arising from shared problem-solving and assessment of results” (p. 24). Consequently, I do not view emergent issues and problems with fear or loathing, but as opportunities for further learning for teachers and the centre.” (“Moving towards sustainable practices”, September 2006)

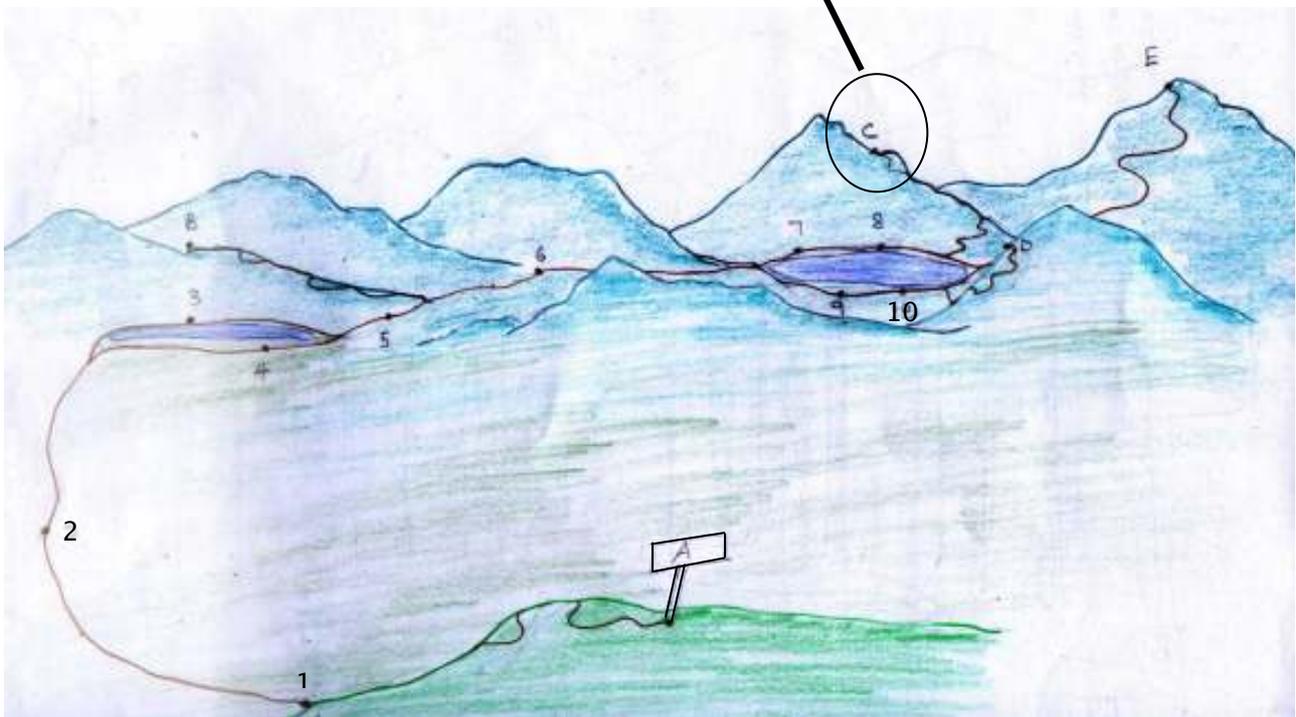


**Emerging view
8-2**

The above reflections suggest that despite the successful implementation of the teacher-helper scheme, there were still issues with it, and that the issues were not likely to be easily resolved because they were embedded in the complexities of life at the Centre. This suggests that the teacher-helper scheme is an example of a complex and evolving change, and negotiating such changes in our everyday practice involves learning that embraces uncertainty and emergence.

Vantage point C

Views of the overall and collective learning journeys: Looking back and ahead



Preview

In this vantage point, I reflect on Chapters 6 to 8 and discuss my emerging knowledge about theory of change and the role of the professional development coordinator in negotiating complex change.

I also look ahead to the next part of the living phase and suggest an emerging theme. I preview the stories in the living phase and raise questions about these stories and their relationships with the theme and the thesis.

Movement
story C-1

Looking back: Reflecting on the stories of professional development and change

I stand at this vantage point, looking back at the stories in Chapters 6, 7, 8. They are stories that I tell of our experiences during our learning journeys as professional development. I reflect on the experiences, the stories of these experiences and my theorising from these stories and experiences. What can I learn about theories of change? What can I learn about negotiating complexity?

Emerging view
C-1

Emerging knowledge about theory of change

[1] Relationship strategies

By examining Movement story 6-1, Emerging view 6-1 and Figures 7-5, 7-6, 8-3, 8-4 and 8-5, it is possible to propose four strategies that have been used to create relationships in the overall learning journeys and the teachers' collective learning journeys. These are strategies that have been inductively derived, but are consistent with the following features of the learning journeys:

- *the definition of a theory of change as strategies that address local conditions (Emerging view 1-1),*
- *the complexity of the learning journeys (Emerging view 3-1), and*
- *Fullan's (1999) idea of attacking incoherence (Info-site 5-1).*

The four relationship strategies are:

Strategy 1: Creating connections among local conditions,

Strategy 2: Creating knowledge through Nonaka and Takeuchi's (1995) knowledge conversion processes (Info-site B-1),

**Emerging view
C-1**

Strategy 3: Creating connections between local conditions and external ideas, where external ideas represent ideas obtained from sources outside the Centre, and

Strategy 4: Focusing the notion of 'meaningfulness' around Fullan's (1999) notion of moral purpose and Wenger et al.'s (2000) notion of value creation (Movement story 3-2[4.2]).

Strategy 1 focuses on creating relationships between local conditions and is consistent with the idea of a theory of change as strategies that address local conditions (Emerging view 1-1). Strategy 2 focuses on creating relationships between tacit and explicit knowledge at and across individual and collective levels. In other words, Strategy 2 focuses on creating relationships between different forms of knowledge (Movement story 3-2[4.3]). Strategy 3 focuses on creating relationships between local conditions and external ideas, which suggests connecting local conditions with knowledge from outside the local setting. Strategy 4 focuses on the kind of relationships that are considered meaningful in the learning journeys, which, in turn, implies the need to consider the power or political relationships so that the latter reflect moral purpose (Movement story 3-2[4.2]). The first three strategies suggest that there are three sets of entities within a theory of change that can be inter-related: local conditions, knowledge and external ideas. The last strategy highlights the type of relationship that is valued in the learning journeys.

How have the four strategies been used in the creation of the professional development model (Movement story 6-1 & Emerging view 6-1)?

In the first place, the three facets of the professional development model in its initial form, that is participating in projects, participating in Centre life and

**Emerging view
C-1**

participating in monthly meetings (Emerging view 6-1), were emergent local conditions that were initially independent of each other. These became inter-related only when I made the connection between these three facets and the following ideas: (1) that the Centre had an Active Movement community of practice (Emerging view 2-1); and (2) that members of a community of practice participate in the practices of the community at varying levels of participation (Lave & Wenger, 1998) (Emerging view 6-1). This suggests the use of two strategies: (1) the strategy of creating connections between the different local conditions (Strategy 1); and (2) the strategy of creating connections between local conditions and the external idea of a community of practice, which I had learnt about in my reading outside of Centre life (Strategy 3).

Furthermore, the professional development model was meaningful to different people in different ways. The professional development model was meaningful to me in the sense that it helped me to make sense of the different professional development activities in my roles as the professional development coordinator and researcher. It was meaningful to the teachers because it gave them the agency to choose their forms and level of participation (Emerging view 6-1). This suggests the use of the strategy of focusing the notion of 'meaningfulness' of the model around Fullan's (1999) notion of moral purpose and Wenger et al.'s (2000) notion of value creation (Strategy 4).

Finally, the following unfolding events suggest the use of the strategy of creating knowledge through knowledge conversion processes (Strategy 2). A dialogue gave rise to the idea of a strategic plan for the gym programme, which I shared with the teachers. We then collaboratively discussed the idea, made a collective decision to go ahead with the strategic plan, created the plan and began implementing it (Movement story 6-1[4]). There was a process of relating tacit

Managing Learning journeys in Active Movement: Developing theories of change in professional development and change and explicit knowledge in the form of knowledge sharing and amplification across individual and group levels (Info site B-1). This knowledge creation had an impact on the organisation in terms of a commitment to improve the gym programme and two improvements to the programme: (1) implementing the teacher-helper scheme; (2) developing our capacity to organise regular and spontaneous visits to the park (Movement story 6-1[4]).

The above interpretation suggests that the four relationship strategies supported the creation of the professional development model only when taken together. This is because each strategy was used, intentionally or otherwise, at different points in the story and it was the sequence of connected events, each embodying different strategies, that led to the eventual creation of the model.

[2] Relationship strategies and tactics

Figure C-1 shows the relationship between the relationship strategies in the learning journeys and the tactics in the graphic reconstructions (Emerging view 7-2). It is a relationship where tactics are actions and ideas that embody one or more of the relationship strategies in the learning journeys.

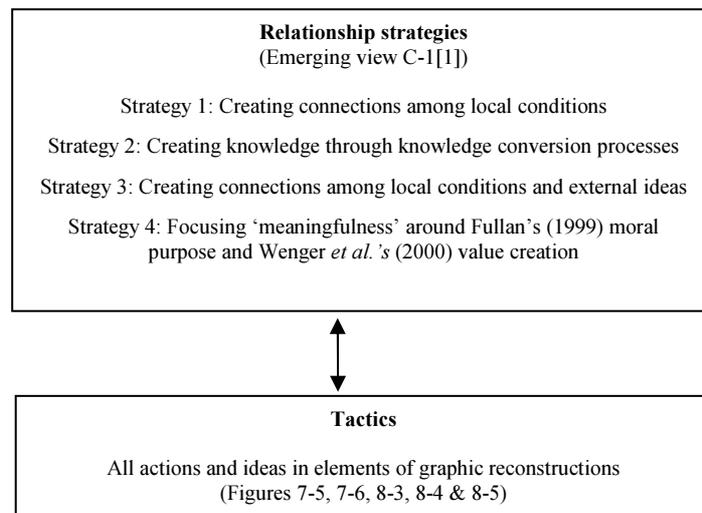


Figure C-1: Relationships between relationship strategies and tactics

It is worth noting that we may or may not have been aware of the strategies and tactics that we use, which implies that our knowledge of these strategies and tactics can be tacit or explicit (Info-site 1-1 & Movement story 3-2[4-3]).

**Emerging view
C-1**

[2.1] Testing the use of the relationship strategies

I have tested the relationships in conjunction with the graphic reconstructions in Figures 7-5, 7-6, 8-3, 8-4 and 8-5. I have selected five tactics and identified the strategies related to each selected tactic. As shown in Figure C-2, this test involves firstly identifying elements that are directly related to the tactic in terms of local conditions or outcome, and secondly, interpreting how the selected tactic and these other elements are related.

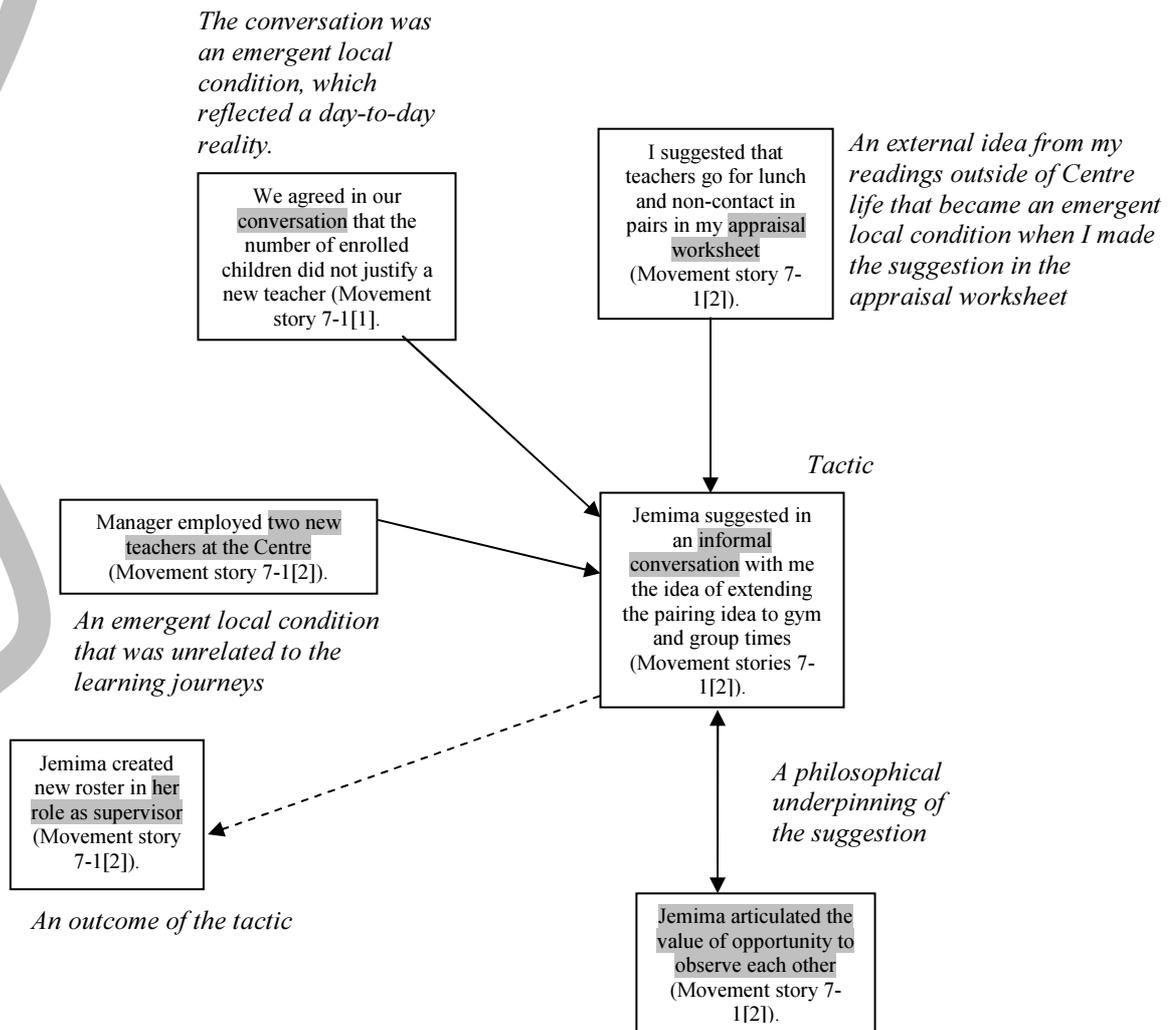


Figure C-2: Selected tactic in Figure 7-5 and its associated local conditions and outcome

**Emerging view
C-1**

Figure C-2 suggests that Jemima arrived at the suggestion (Tactic) after making the connection that, with the arrival of two new teachers, there was an opportunity to address the limitations of the gym roster by pairing teachers up in the gym room. In other words, she created connections between four local conditions (Strategy 1) to create some sort of benefit for the teachers in terms of giving them the opportunity to observe each other. Although the benefits to the children were not articulated, it seems reasonable to suggest that by allowing teachers to observe each other and by addressing the limitations of the gym roster, gym time would be a more effective learning experience for the children. In other words, the change would benefit both teachers and children (Strategy 4).

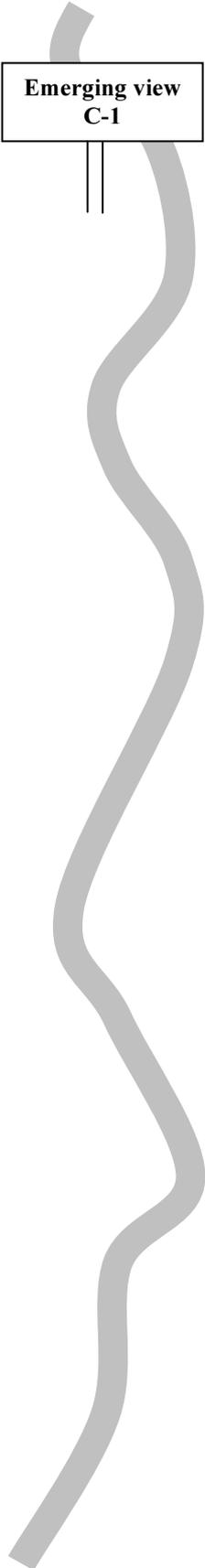
[2.2] Evaluating the test

Although there are subtle differences in the five tests I conducted, in general, they suggest that graphic reconstructions can be a useful tool for identifying the relationship strategies associated with a theory of change.

However, as suggested in Emerging view C-1[1], it is the sequence of tactics that can account for the whole change, which implies that the strategies supported the change only when taken together. This suggests that in order to identify the whole range of strategies in the theory of change, it is necessary to identify all the strategies associated with every tactic in the graphic reconstruction.

[3] The value of articulating relationship strategies

The kinds of relationships that were valued in the learning journeys were positive and collaborative relationships that manifest themselves in the form of symbiosis or synergy. Cambel (1993) describes symbiosis in complex systems as a relationship where sub-systems co-exist and help each other to achieve their own goals. Synergy, on the other hand, involves sub-systems working together to



**Emerging view
C-1**

Managing Learning journeys in Active Movement: Developing theories of change in professional development and change create some emergent phenomenon which benefits all sub-systems. Symbiosis and synergy appear to be two types of interactions that, according to Daft and Lengel (1998, in Fullan, 1999), involve organisational and personal fusion that reinforce each other (Movement story 3-2).

Drawing on Cambel's (1993) idea in the context of the learning journeys, the notion of positive and collaborative relationships involves relationships that allowed teachers and children to achieve their own goals (symbiosis) and, at the same time, work together to create something that benefited everyone (synergy). The outcomes of the symbiotic relationship for teachers included the teachers' own professional development (Table 6-2) and the professional development model (Emerging view 6-1), which allowed the teachers to achieve their own goals. The outcomes of symbiotic relationships for children can be seen in the teacher-helper scheme (Movement stories 8-1-1, 8-1-3 and 8-1-4), which gave children the agency to achieve their own learning goals. At the same time, the teacher-helper scheme represents an outcome of the synergetic relationship since the scheme was an emergent outcome that benefited teachers and children in different ways.

This discussion suggests that there is value in articulating the relationship strategies in a professional development and/or change effort as the articulation helps to clarify the kinds of relationships we value as well as ways to achieve these kinds of relationships. In other words, in developing a theory of change, it is useful to articulate the relationship strategies in the change effort as these strategies help us to clarify our philosophical underpinnings and our theory of change.

Emerging view
C-2

The role of the professional development coordinator in negotiating complex change

The stories in Chapters 6, 7 and 8 highlight the nature of emergence. An idea to change the gym roster, the preschool teachers' first professional development activity, an evaluation meeting, Frances' articulation of a problem, the generation and trialing of an idea to help the nursery teachers, the death of that idea, the resurrection and re-trial of the idea in a different form. These different but connecting activities and events involved different teachers who sometimes acted individually and sometimes in a group. I am not suggesting that these were purely accidents that somehow came together into something meaningful.

Perhaps these actions by individuals and groups suggest what Petroski (1994, p. 4) calls, in his story of "How the fork got its tines", an interplay between discovery and intention. An idea is discovered and one or more teachers decide to work on the idea, which generates more ideas or insights, some of which are further acted upon by the same or other teachers and the chain of actions and events continues. Furthermore, when this interplay between discovery and intention is linked to creating value for children, teachers and the centre, as it did in the learning journeys, perhaps we can view this interplay as Fullan's (1999) intellectual, political and spiritual fusion (Movement story 3-2[5]) or the interplay between ideas, actions and moral purpose.

The above discussion suggests that emergent change is a form of complex change that arises from the inter-connections of multiple events, activities, actions, interests, ideas and decisions. This notion of emergent change is consistent with the definition of emergence as coming into view or existence (Vantage point A[4.1]). However, when I look back to the beginning of the professional development, I could not have predicted that the teacher-helper scheme would

**Emerging view
C-2**

have emerged from the change we made to our gym roster. Had I not been making sense of the emerging events and activities, I might not have remembered or realised that there was a connection between the teachers' first and second collective learning journeys. This highlights the value of the role of a professional development coordinator in negotiating emergent and complex change. The coordinator's role is to identify or create relationships between different events, ideas, actions and decisions, and share these with teachers so that they can collectively act on these relationships to benefit themselves and children.

**Movement
story C-2**

Looking ahead: Continuing the journeys in the living phase

Before moving on from this vantage point, I try to get a sense of continuity and change between the learning journeys so far and the ones to come. Are there any consistent themes emerging in the thesis, and if so, what are they? What other stories of the living phase can I tell that can contribute to the thesis and/or these themes? What challenges lie ahead in the next part of the living phase?

**Emerging view
C-3**

Emerging theme and future stories

From this vantage point, I see an emerging deeper understanding of the notion of a theory of change; what it is, how we can recognise it, how we can develop it. In the subsequent chapters of the living phase, I tell stories of my learning to be a researcher. How can these stories contribute to supporting the main idea and developing the emerging theme? How do I ensure that I achieve emergent clarity (Vantage point A[4])? I ponder on these questions as I prepare to continue the learning journeys.



Chapter 9

Learning journeys of a researcher: Collecting and managing data

Preview

In this chapter, I explain the methods used to collect and manage data in the learning journeys, and discuss the sampling strategies and ethical issues. I also tell a story of how I changed the way I managed the audio data. I then discuss two emerging ideas: (1) the role of prior knowledge in a theory of change and (2) the data collection and management strategies in the overall theory of change.

[1] Methodology: Representing the methods used in the learning journeys

For the purposes of this thesis, I classify the methods used into four categories, each focusing on a data type. These are methods for recording and generating personal learning data, audio data, documentary data and visual data. However, these categories are not mutually exclusive. Instead, there are overlaps between categories and that the purpose of having these categories is to simplify my descriptions of the methods.

This organisation differs from descriptions of methods that focus on organising them in terms of interviews, observations, experiments, surveys, etc. (Patton, 2002; O’Leary, 2005; Robson, 1993). This choice emerges from the fact that a method such as an interview was used for multiple purposes and in multiple ways in the learning journeys. For example, Patton (2002) describes informal conversations and group focus interviews as variations of the interview methods, and in the learning journeys, I used both variations but for different purposes and in different ways. I used the former in conjunction with journal writing to capture my learning as an observing participant (Info-site 9-1) and the latter to collect and generate data related to our professional development meetings (Movement story 6-1[3]).

Info-site 9-1: The role of an observing participant

According to Alvesson (1999, in Coghlan & Brannick, 2005), an observing participant is a researcher who undertakes research in “a setting in which the researcher is on more or less equal terms with other participants” (p. 49). In such a role, “(p)articipation comes first and is only occasionally complemented by research-focused observation” (p. 49).

Coghlan and Brannick also have this to say about data in relation to action research:

“In action research data comes through engagement with others in the action research cycles. Therefore, it is important to know that acts which are intended to collect data are themselves interventions. So asking an individual a question or observing him or her at work is not simply collecting data but is also *generating* learning data for both of you, the

researcher and the individual concerned. In short, you are not neutral. Every action, even the very intention and presence of research, is an intervention and has political implications across the system. Accordingly, it is more appropriate to speak of data *generation* than data gathering.” (p. 99, authors’ italics)

As a researcher and a professional development coordinator in the organisation that I worked, I viewed myself as an observing participant who collected as well as generated data.

In this thesis, I present the methods as images and summaries that embody two modes of representation - photographs of the tools associated with each method and a table that summarises the methods. I acknowledge the inherent limitation of this way of representing the methods: it does not illustrate the relationships between the different methods used for each data type. To address this limitation, I include a movement story (Movement story 9-1) that illustrates the relationship between the various methods used to record and organise audio data.

[2] Images of the emergent methods

[2.1] Personal learning data

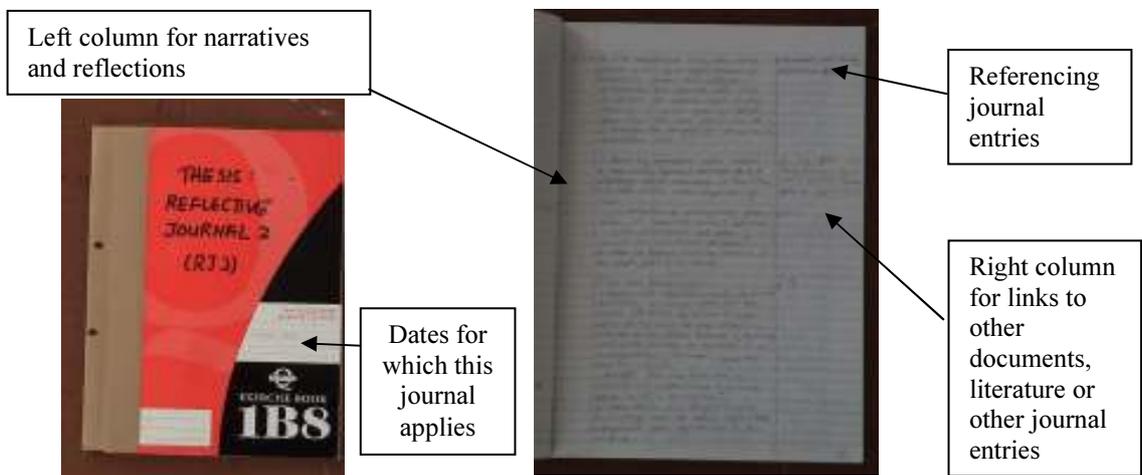


Figure 9-1: Written journal

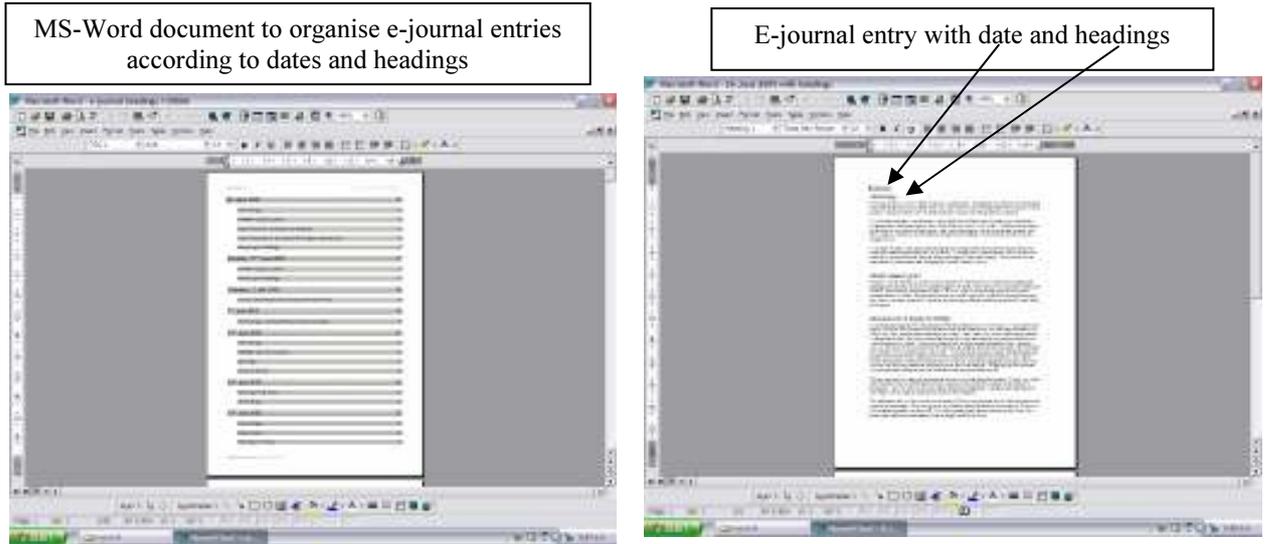


Figure 9-2: E-journal

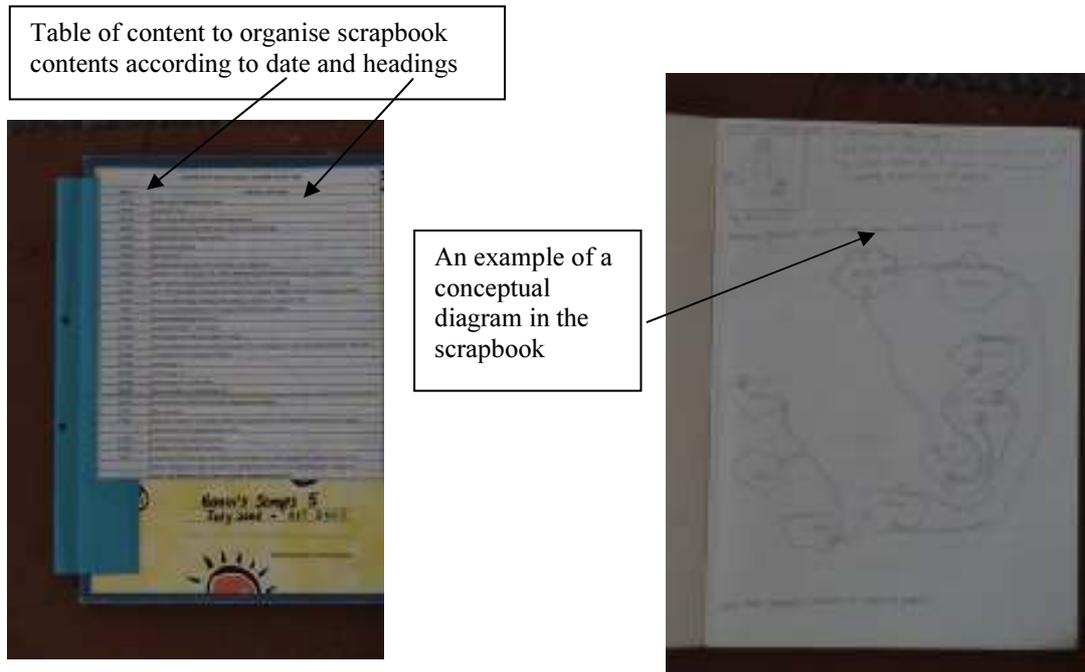


Figure 9-3: Scrap book



Method for organising and referencing recordings

MC5 side B 26:30-45:25
MC6 side A 00:00-32:50

Figure 9-6: Wavepad with Excel

[2.3] Video data

Figure 9-7: Videos, movies and photographs stored on CD-R

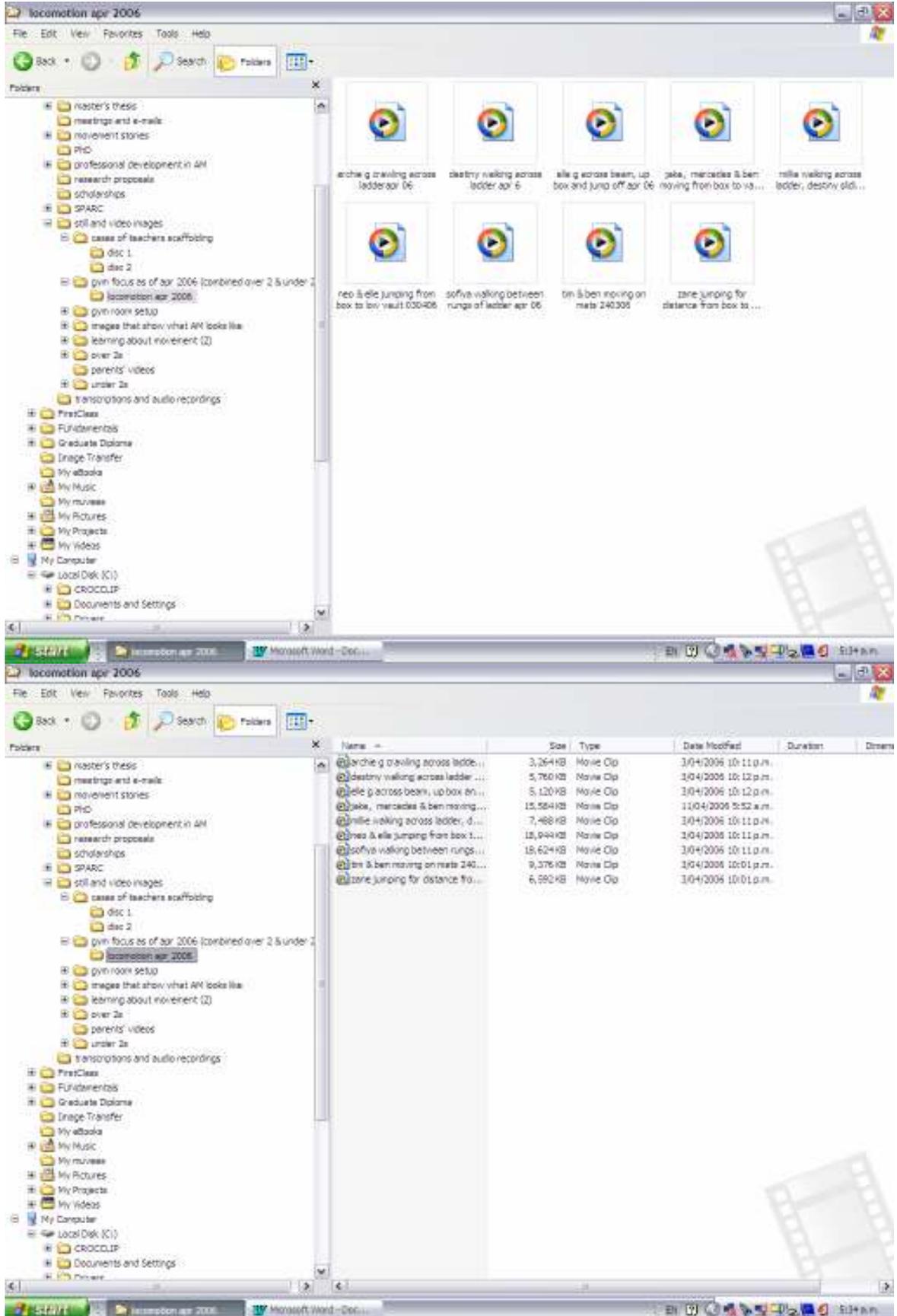
Video clips and photos organised into different categories



A CD-R labelled Image 14 containing video clips and photographs. The names of these are found in the computer folder named on the sticker.

Figure 9-8: Names of files found on Image 14

The following files have been stored on CD-R labelled Image 14 on 19th June 2006. Copy 1 only.



[2.4] Documentary data



Figure 9-9: Arch lever folders to organise paper documents

The following screens show the computer file system as at 22nd October 2006 (after backup).

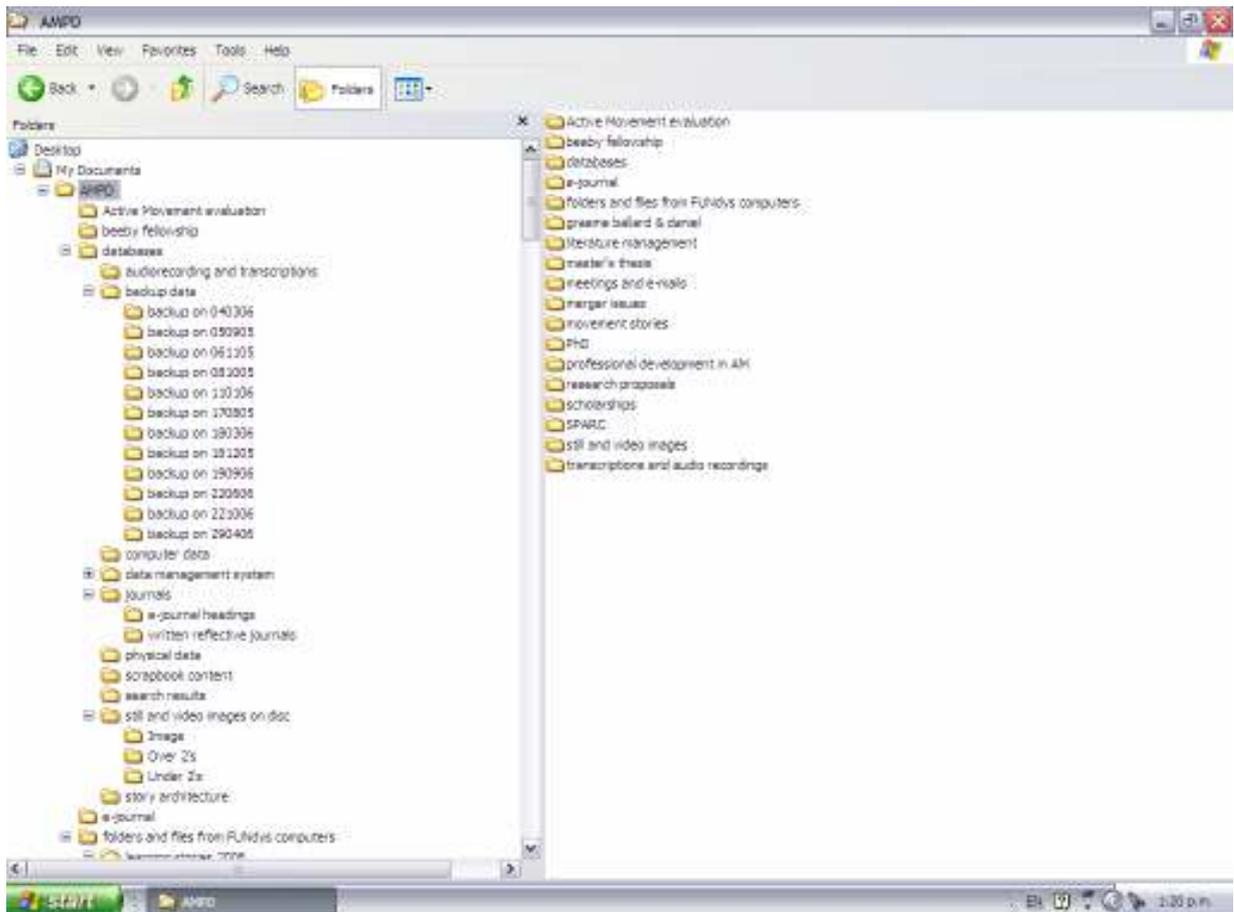


Figure 9-10: Managing electronic documents- Part of computer file system on 22nd October 2006

[3] Summary of the methods

Data type	Method	Purpose(s) of method	Details of method	Value, limitations, issues and comments about method
Personal learning data	Written journal	To record narratives of my observations, conversations, readings and other experiences and what I learnt from these	<ul style="list-style-type: none"> Five written journals labelled RJ1 to RJ5 between September 2004 and July 2005 Free flow format with no heading for entries Example of referencing journal entry: RJ4P5L20-RJ4P6L5.5 Document <i>Datamap of planning phase (140405)</i> created on 14th April 2005 to reduce and organise journal entries 	<ul style="list-style-type: none"> Useful for developing skills for reflection and combining writing with analysis Free flow format and absence of headings made it difficult to access, copy and manipulate for data analysis Time-consuming to write entries
	E-journal	As for written journals	<ul style="list-style-type: none"> 190 pages between July and December 2006 Date and headings included as part of journal entries Example of referencing e-journal entry: ..\..\..\e-journal\7th October 2006.doc/organising contents of scrapbooks Database and MS-Word documents created to organise and update e-journal entries. Example: ..\..\..\databases\journals\e-journal headings\e-journal headings 091206.doc 	<ul style="list-style-type: none"> Useful for developing skills for reflection and combining writing with analysis Time-consuming to write entries Headings and database make it easier to access, copy, manipulate and manage individual entries than written journals, especially with a printer easily accessible Need to have the laptop to create entry
	Scrap book	<ul style="list-style-type: none"> To record notes and insights that emerge To draw pictures and diagrams as part of analysis To record tasks carried out as part of analysis 	<ul style="list-style-type: none"> 11 scrap books between December 2005 and December 2006, labelled as Hanin's Scraps 1 to 11. Date and headings included as part of scrap book entries Example of referencing scrap book entry: <i>Hanin's Scraps 9/051206/Source data for 'post-interview activities' for PDMtg1 and PDMtg2</i> Table of content found at front of each scrap book 	<ul style="list-style-type: none"> Useful for drawings, writing down short notes and for analysis Serves as recording 'footprints' of what I have been doing for my analysis A convenient alternative to e-journals when laptop is not available and/or when available time for writing is short More accessible than written journals but not as easily accessible as e-journal entries Difficult to copy and manipulate for analysis without a photocopier easily accessible

Data type	Method	Purpose(s) of method	Details of method	Value, limitations, issues and comments about method
Audio data	Audio cassette recording	To record our dialogues and discussions during the professional development meetings	<ul style="list-style-type: none"> • AIWA TP-A200 microcassette recorder with C60 and C90 microcassette tapes • 2 C60 and 4 C90 microcassette tapes • Example of tape label on side B: MC5sideB • Example of organising recordings on MC5 side B: PDMtg7(6/3/06), PDMtg8(20/3/06) • 480 minutes of audio recording 	<ul style="list-style-type: none"> • Made verbatim conversations available as a source of data for analysis • Data difficult to access because of sequential nature of recording and the practice of recording two meetings on one side of the tape
	Transcription	To make audio recordings accessible for analysis	<ul style="list-style-type: none"> • Listened to audio recordings to transcribe recordings on MS-Word • 63-page transcription for first professional development meeting • 17-page transcription for second professional development meeting • Example of referencing: PDMtg2P3L11-L16 	<ul style="list-style-type: none"> • Allowed me to link the speaker with the spoken words, add in my interpretations and comments, identify certain words as evidence, tag my data and group the tagged data according to some label, theme or idea on the transcript • Extremely time-consuming to create
	Wavepad	To make audio recordings accessible for analysis	<ul style="list-style-type: none"> • Wavepad is a free audio editing software downloaded from the Internet at http://www.download.com • Used to download recordings of third to ninth meetings from tapes to hard disc of laptop • File names reflect the source microcassette. Example of filename: MC5side B (PDMtg7-2 & PDMtg8-1) • Example of referencing: MC6sideA33:12-46:36 • Used MS-Excel to organise Wavepad files (see Figure 9-6) 	<ul style="list-style-type: none"> • Easy to access, store and manage recordings • Used in conjunction with scrap books to analyse recordings

Data type	Method	Purpose(s) of method	Details of method	Value, limitations, issues and comments about method
Video data	Video camera	<ul style="list-style-type: none"> • To record children's engagement in movement activities • To generate conversations and learning among children and teachers 	<ul style="list-style-type: none"> • Sony DVD Handycam 101E • 2 DVD-RW 80mm disc for 60 minutes of video recording • Can be used to record both video recordings and photographs • Video clips and photographs downloaded to laptop using ImageMixer v1.5; laptop used as a temporary storage area • Video clips and photographs downloaded are stored as MPEG2 files and as JPEG files respectively 	<ul style="list-style-type: none"> • Videos and photographs recorded on camera are easily accessible on camera • Easy and quick to download to laptop • Quality of video clips are not as good as video camera using cassettes
	Video clips	<ul style="list-style-type: none"> • To use, store and manage downloaded video clips • To create movement stories from video clips and photographs • To create movies to be used as a teaching and learning tool • To be used as another data source for source validation 	<ul style="list-style-type: none"> • All video clips downloaded are renamed to reflect who are on the clip, what and when they were doing. • All video clips, photographs and movies are organised into folders on laptop before being transferred from laptop to CD-Rs • Content of folders containing clips, photographs and movies are stored as images on MS-Word using PRINT SCREEN before they are transferred to CD-R • All CD-Rs are labelled, organised and matched with folders which contained the images • Used Windows Moviemaker 2 and ImageMixer to create movies 	<ul style="list-style-type: none"> • A good source of learning for children and teachers • Easy to copy and manipulate • Useful for creating movement stories • Creating a system to manage video data is very challenging • Time-consuming to manage video data • Difficulty masking faces of children whose parents have not given permission for their children's image to be used in publications and movies
	Photographs	As for video clips	<p>Similar to video clips. In addition,</p> <ul style="list-style-type: none"> • Photographs can be extracted from video clips using Windows Moviemaker 2 	<ul style="list-style-type: none"> • Useful for creating movement stories • A good source of data for source validation • Easier to manage than video clips • Easy to mask children's faces on photos than on video clips

Data type	Method	Purpose(s) of method	Details of method	Value, limitations, issues and comments about method
Documentary data	Paper documents	<ul style="list-style-type: none"> • Documents such as teachers' movement stories, centre policies and form, planning and evaluation sheets and programme summaries used as sources of data • Documents and diagrams generated during professional development meetings and during analysis also used as sources of data 	<ul style="list-style-type: none"> • Different ways of referencing documents • Classified into four categories: documents related to professional development activities, research activities, thesis activities and SPARC • Stored in lever arch folders, each folder with its own file name and internal organisation structure • 2 folders for documents related professional development activities • 9 folders for documents related to research activities • 2 folders for documents related to thesis activities • 2 folders for documents related to SPARC 	<ul style="list-style-type: none"> • Less organised than other methods • A useful source of data • Reasonably easy to access documents if I know what documents I am looking for
	Electronic documents	Used both as data/documents created and as a source of data for subsequent analysis	<ul style="list-style-type: none"> • All documents organised on laptop according to a computer file system I created. • Use of hyperlink function to create chain of evidence between writing and source data. • All documents on computer system backed up regularly on CD-Rs. 	<ul style="list-style-type: none"> • Electronic documents are easy to access, copy, manipulate and manage. • Computer file system allows for data to grow and change while keeping chain of evidence between writing and source data. • Backup system is aligned with computer system to easily restore documents in case of data loss

[4] Sampling strategies and issues in the learning journeys

The research questions for the learning journeys focused on collecting data that could be used to create stories. The stories could be about teachers' and children's learning in, through and about movement as well as stories about or for change (Movement story 4-1[3]). These stories would be framed in the context of the teachers' professional development in Active Movement at the Centre. In other words, the research questions framed the purpose of the research, which in turn, suggests purposeful sampling (Patton, 2002) as an appropriate sampling strategy for the learning journeys. Patton points out that purposeful sampling involves selecting cases that are rich in information and highlight the phenomenon the researcher is interested in studying. It is a sampling strategy aimed at generating insights and in-depth understandings about the phenomenon. Based on the research questions, the phenomena to highlight in the learning journeys were learning and change.

However, in the research questions, I had deliberately made definitions of 'movement', 'movement stories', 'professional development' and 'change' flexible enough to encompass a variety of meanings (Info-site 4-1). I suggested in Chapter 4 that this decision made the research questions broad and non-specific in nature (Emerging view 4-1). In other words, I had framed the research question in a way that implied I was not looking for any specific forms of learning or change. Instead, I wanted to remain open to various possible meanings and manifestations of these phenomena. This intention to remain open to possibilities further meant that I could take advantage of new opportunities during data collection and be open to following wherever the data led me to (Patton, 2002). Patton calls this form of sampling strategy opportunistic or emergent sampling.

Despite its value, emergent sampling in the context of the learning journeys did have an inherent danger, that is, there was a possibility of collecting a huge amount of data with a real possibility of getting lost in the mountain of the data. I had learnt a similar lesson in “Journeys with Hoops” (Movement stories 3-1-1-[1]) & 7-1[1]), and the feedback from one of the reviewers of my thesis proposal reiterated this danger. The reviewer wrote

“There does not appear to be any boundaries around the amount of data- I feel this could get too big. Also no indication of how many teachers/children.” (feedback on proposal, p. 1)

In an e-mail to my supervisors, which I also sent to the reviewer, I wrote my reflections on this issue and a strategy I would use to avoid getting lost in the mountain of data.

“(The reviewer) is right to be concerned about this getting too big, and this is something, as my supervisors, you have raised, and I have noted. On the one hand, I do not want to limit myself to a specific amount of data or number of teachers/children, given the dynamic nature of life at the Centre. On the other hand, I do not want to disregard all your cautions about the size of the project. The only thing I can say is that I will make it a point to constantly monitor the size and quality of the data, and make a judgement call about when to stop collecting. I hope I have the wisdom to make the right decision when the time comes.” (thought on I’s and L’s feedback.doc, p. 5)

Another related strategy that I used for countering this danger was to engage in a constant evaluation of whether what I saw, did, heard and learnt had any direct and indirect relationship with learning and change within the design framework of the learning journeys. I was aware that even an apparently insignificant and unrelated event could contribute significantly to any outcomes in the future. From complexity theory, at any point in time, it may not be possible to predict the significance of a piece of data. What may appear to be insignificant at a particular point in time can take on greater significance as events unfold and interact with each other, as illustrated by the emergent nature of the teacher-helper scheme (Emerging view C-2).

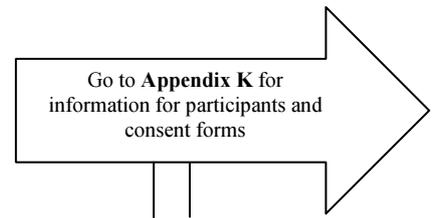
I had used this strategy of constantly evaluating my data as part of my sampling strategy in “Journeys with Hoops”. On the surface, this strategy appears to suggest paying attention to everything that was happening, thereby further emphasising the lack of boundaries around the amount of data. However, I argue that it is a strategy that is focused on creating connections between apparently unrelated data, or to put it differently, a strategy based on creating order out of chaos that is the data. The focus on creating connections can perhaps be viewed as an analytic strategy to organise the data according to activities, themes and stories, thereby creating emergent criteria or purposes for future data collection and generation as the learning journeys unfolded. Such a sampling strategy fits within the design of the learning journeys (Movement story 5-1[2]). As a researcher and a professional development coordinator, I was free to make sampling decisions that allowed me to explore possibilities in the learning journeys as long as these decisions were both ethically and logically defensible (Emerging view 3-2).

[5] Ethical issues

Given the complexity of the learning journeys, I handled the ethical issues at two levels. The first level was to make decisions according to the key strategies for dealing with change (Emerging view 3-2). This called for balancing the freedom to be creative and take risks with the need to take into account the interests of the different parties on whom the decisions would have an impact. In other words, it called for the use of Fullan’s (1999) fusion of change forces as the underlying principle for decision-making. This level was intended to cater to unforeseen problems that would emerge during the learning journeys.

The second level involved a set of strategies aimed at minimising risks to the participants in relation to confidentiality of identity and data. I articulated the issues and strategies in my ethical approval

application. To summarise, I identified two inherent tensions between normal research practice and the nature of the learning journeys.



The first was the tension arising from the value of keeping the participants' identity confidential, an accepted research practice, and some of the teachers' wish to keep ownership of their personal stories by using their real names (Patton, 2001). The second was the tension between confidentiality of data normally associated with research and the collaborative nature of the professional development which focused on sharing and learning from and with each other (Coghlan & Brannick, 2005).

Movement story 9-1

From transcriptions to Wavepad

Initially, I collected the audio data using my microcassette recorder (Figure 9-4) and transcribed the recordings (Figure 9-5) in the same way that I had done for “Journeys with Hoops”. The process of transcribing the first meeting of two hours duration took me fifteen hours over three days and produced a 63-page transcription. The same process for the second meeting of twenty minutes was also spread over three days, although I did not record the total number of hours involved in the process. *Despite the value of transcription, I found the process time-consuming and arduous to the point where I delayed transcribing all the other recordings.*



However, a solution to this problem emerged in January 2006 in the form of Wavepad, a free audio editing software that my husband, David, had downloaded

**Movement
story 9-1**

from the Internet. After some tinkering with the features of Wavepad with MS-Excel, I managed to find a simpler way to manage, access and reference my audio data (Figure 9-6).

**Emerging view
9-1**

Prior knowledge as a local condition

Wavepad emerged as an alternative way to manage audio data. It was an outcome of my attempts to create my own research solutions to my research problems. My prior knowledge in and about research methods in “Journeys with Hoops” and concepts of data organisation that I had learnt as a software engineer were two factors that contributed to its emergence. This prior knowledge in and about research methods served as a starting point for my learning journeys as a researcher in the same way that the gym programme served as a starting point for the teachers’ professional development (Emerging view 2-2). This suggests that prior knowledge can be viewed as a starting point that can become a local condition for learning and change.

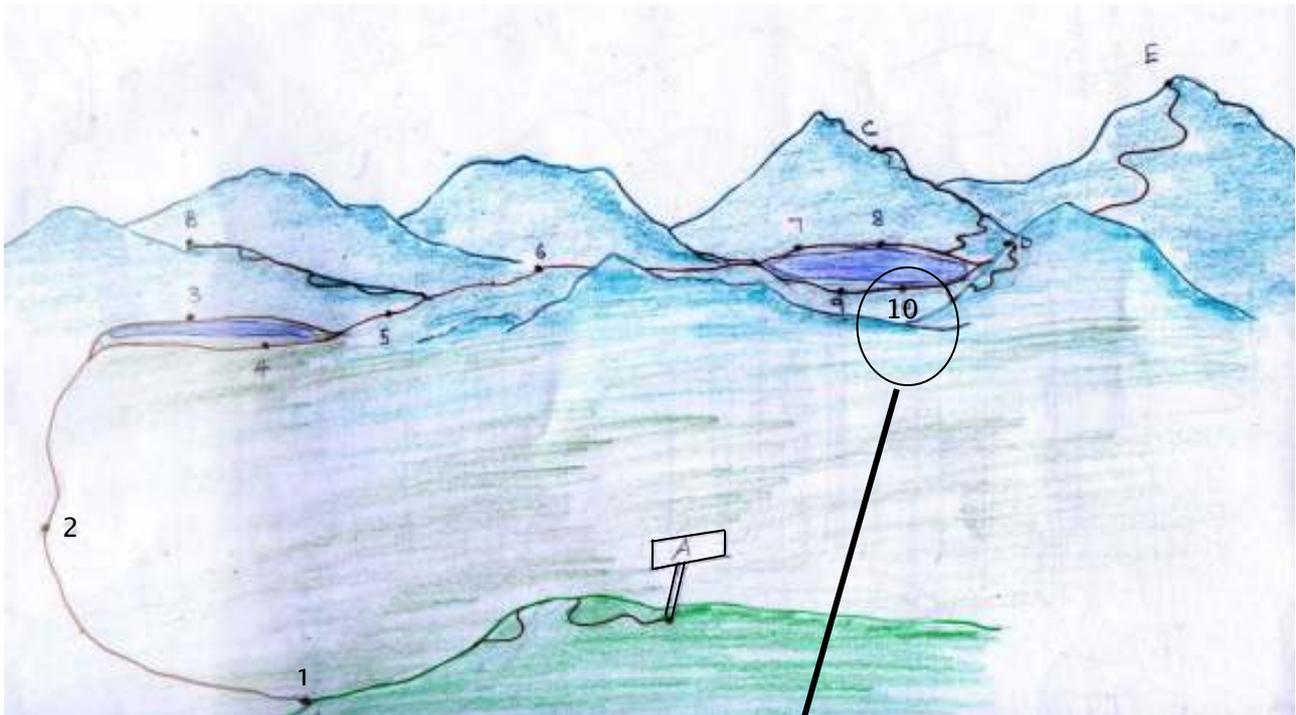
**Emerging view
9-2**

Data collection and management strategies in the overall theory of change

The methods to record, organise and store audio data represent actions that embody the purpose of making the data accessible for analysis and interpretation. At the same time, they affect and are affected by the practical constraints or the day-to-day realities of the learning journeys. Examples of these day-to-day realities include the type of data to be collected and generated, the available tools and the problems associated with using the tools. Given that strategies are actions that embody a purpose and a relationship with the local conditions (Emerging view 7-2), this implies that the data collection methods (Chapter 9[2]

**Emerging view
9-2**

& [3]), sampling strategies (Chapter 9[4]) and strategies for dealing with ethical issues (Chapter 9[5]) can be viewed as data collection and management strategies in the overall theory of change.



Chapter 10

Learning journeys of a researcher: Making sense in and of the learning journeys

Preview

In this chapter, I tell a story of my learning in the role of a researcher and discuss the issues I faced in analysing and interpreting the learning journeys.

I also tell a story of my struggle to represent how I made sense in and of the learning journeys and discuss the emergent analytical framework and strategies I created to represent this sense-making process. I then discuss the idea that the above strategies can be viewed as relationship strategies.

**Movement
story 10-1**

Learning in the role of a researcher

As a novice researcher, my understanding of the terms “analyse” and “analysis” were very much influenced by my training as an engineer. I understood the words to be related to understanding why and how something, be it an object, an idea, a process or a phenomenon, works by examining it or “taking it apart”. However, I was not only interested in examining and “taking things and ideas apart”. I liked putting ideas together to make something new, a process I called “synthesis”. For much of the learning journeys, this was how I understood my role as a researcher: to study the events, experiences and activities, examine them or take them apart, write a story about these and create new knowledge from these. To put it differently, I was “analysing” data to “synthesise” movement stories and “analysing” the stories to “synthesise” a thesis.

As the learning journeys unfolded and I became more and more involved in what I understood to be “analysis” and “synthesis”, I found myself becoming confused about what the words meant in the context of research. I noticed words like “data analysis”, “interpretations”, “findings”, “descriptions”, “results”, “theorizing”, “case analysis”, “methods of synthesis” and “knowledge integration” appearing in the literature I was re-reading (Patton, 2002; Baptiste, 2001; Coffey & Atkinson, 1996; Scholz & Tietje, 2002). They were all related to the idea of “data analysis” in qualitative research but for a long time, I was unclear as to their relationships in the general context of research and in the particular context of the learning journeys. These became clear only very late in my thesis. *It was a case of emergent clarity in my understanding of analysis in the context of research and of the learning journeys.*



Making sense
of experience

**Movement
story 10-1**

In the context of qualitative research, Coffey and Atkinson (1996) use the term “analysis” in terms of analysing data and write that “analysis means different things to different people” (p. 6). They describe definitions of analysis by Huberman and Miles (1994), Dey (1993) and Walcott (1994) and suggest that there are similarities and differences between these definitions. Despite these multiple meanings, Coffey and Atkinson (1996) stress that “data analysis deals with meaningful talk and action” (p. 5). Patton (2002) describes analysis as transforming data into findings or “making sense of massive amounts of data” (p. 432) into a description.

Both Coffey and Atkinson (1996) and Patton (2002) also assert that research involves more than analysing data to describe the data or create a story. They describe this as going beyond the data, while acknowledging that it is an inter-weaving and integral aspect of analysis. Coffey and Atkinson (1996) use the term “generalizing” and “theorizing” to go beyond the data to develop theory, adopting Dey’s (1993, p. 51, in Coffey & Atkinson, 1996) idea of a theory as “an idea about how other ideas can be related” (p. 140). Patton (2002) uses the term “interpretation” to describe the step of going beyond the data. He describes interpretation as

“attaching significance to what was found, making sense of findings, offering explanations, drawing conclusions, extrapolating lessons, making inferences, drawing conclusions, and otherwise imposing order on an unruly but surely patterned world.” (p. 480)

Coffey and Atkinson (1996) and Patton (2002) also suggest that analysis and interpretation are inter-weaving processes that are carried out throughout the research process and should not be viewed as a distinct phase separate from other research activities.



Making sense
of confusion



**Movement
story 10-1**

The above description suggests that I had understood the meaning of analysis and interpretation, but on my own terms. In the knowledge base of research, analysis and interpretation are both sense-making or meaning-making processes that focus on different but inter-related aspects of the research process.

In other words, they are processes of making sense of our research, but at different levels. "Analysis" involves making sense of the data to produce "descriptions" or "findings" while "interpretation" involves meta-analysis or making sense of our analysis from which we develop our theories or new knowledge.

Looking back at the sense of confusion that emerged in my role as a researcher, I wonder what factors contributed to that confusion. It is reasonable to suggest that my initial understanding of "analysis" and "synthesis" was a contributing factor as was the multiple meanings ascribed to data analysis in the knowledge base of qualitative research. However, another significant contributing factor was my initial lack of understanding of the relationship between the professional development and the thesis.

I came to realise the relationship between the professional development and the thesis very late into the learning journeys. I reflected on this realisation in my e-journal and compared it with my lack of understanding during my six-month thesis presentation (Movement story 6-2[1] & [2]):

"One of the lessons I have learnt is to create the relationship between the professional development, the research and the thesis. I remember trying to create relationships between the professional development, research and the gym programme in the early stages of the research, without really knowing where the thesis fitted because I actually didn't know what a thesis was. I also remember Elaine, Lindsey and the panel members at the six-month thesis presentation telling me about the specific nature of a thesis but I still didn't get it. I just went "Uh-huh" although it must have sat at the back of my mind, waiting for the right moment to jump to the forefront. And I know I didn't know because I didn't have the experience I do now, experience in actually creating a thesis from the research I've been doing. That realisation emerged recently from a whole series of other realisations in my attempts to clarify the methodology of the learning journeys." (E-journal, 20th October 2006)

Movement story 10-1

The relationship emerged in terms of the two overarching purposes of the learning journeys: to engage in professional development in Active Movement and to develop a thesis related to that professional development (Info-site A-3).

Emerging view 10-1

Issues in analysis and interpretation

As a researcher, I was engaged in research to facilitate our professional development as well as develop a thesis for my master’s degree, which I describe as engaging in research for and of professional development respectively. Table 10-1 gives a summary of the research purposes in terms of the tasks related to my role as a researcher.

Tasks related to research role in ...	
... research <i>for</i> professional development	... research <i>of</i> professional development
Created opportunities for teachers’ professional development	Created movement stories of professional development
Resolved problems and issues related to the professional development	Created a thesis from the movement stories, including thesis-related problems and issues as well as creating opportunities for future professional development
Created interim movement stories for professional development	

Table 10-1: Summary of research purposes

This relationship between the professional development and thesis in terms of their distinctive purposes had an impact on the process of analysis in the learning journeys since Patton (2002) argues that purpose guides our analysis. Baptiste (2001) makes a similar assertion, describing research purpose as part of our design consideration in qualitative data analysis. During the professional development, I focused part of my analyses on creating opportunities and resolving problems that emerged as we lived the learning journeys as professional development. When the professional development ended in June 2006, and I became more engaged in the process of creating a thesis, my analyses were

**Emerging view
10-1**

focused on creating stories of the professional development that could contribute to the thesis and at the same time give value to the teachers' experiences. These two forms of analyses correspond to what Patton (2002) calls field-based analysis and final analysis respectively and highlighted different purposes.

The presence of these two forms of analyses created a challenge when juxtaposed with my role as an observing participant (Info-site 9-1) as well as Coghlan and Brannick's (2005) assertion that description and interpretation should be separated in our research reports.

Coghlan and Brannick write:

"It is important to present separately the basic story as if it were a news bulletin, as if a video camera had recorded what had taken place. This form of presentation gives the evidence in a factual and neutral manner. Your view of these events and your theorizing as to what they mean should not be mixed in with the telling of the story... By separating the story from its sense-making, and by clearly stating which is story and which is sense-making, you are demonstrating how you are applying methodological rigour to your approach." (p. 129)

During the field-based analysis, I was constantly interpreting and acting on events and activities as an observing participant. Consequently, during the final analysis, I faced real difficulties separating description from interpretation in the thesis report since the interpretations were already embedded in the data that I collected and generated. For example, the critical reflections on the teacher-helper scheme in its original form were my interpretations of the story "Change lessons: Playing with the gym roster" (Appendix H). They emerged as I was writing the story as part of my field-based analysis and my purpose for interpreting the story in that way at that time was for teachers to decide if we valued the scheme enough to make it work a second time round (Movement story 8-1[3] & Appendix H).

**Emerging view
10-1**

In the retelling of the story for this thesis, which I created during my final analysis, I summarised the original interpretations so that although it is labelled as an interpretation, it reads more like a description (Movement story 8-1[3]). In other words, in the thesis version of the story, I described how I interpreted the original story at the time that I wrote it: it became a description of an interpretation.

*To overcome the challenge of separating description from interpretation in this thesis report, I use several strategies. The first strategy is to distinguish between interpretation **in** a story from interpretation **of** a story (Vantage point A[4.2]). The former describes my interpretation at a particular point in time in the story which influenced subsequent events in the story. The latter refers to my interpretations after the story has been told. The second strategy is to use the notions of movement stories and learning journeys as organising structures to organise and represent the descriptions and interpretations respectively (Vantage point A[4.2] &[4.3]), a strategy Patton (2002) describes as communicating with metaphors and analogies.*

**Movement
story 10-2**

Representing the sense-making process

[1] Achieving emergent clarity in the sense-making process

Patton (2002) writes that

“(t)he final obligation of analysis is to analyze and report on the analytical process as part of the report of actual findings.” (p. 434)

For a long time, I struggled to analyse and report on the analytical process that I used in the learning journeys. I knew the pieces that were part of the process, but the struggle was to integrate the pieces into a coherent description. I tried

**Movement
story 10-2**

drawing maps and diagrams and writing narratives, but was not satisfied with the outcomes.

One of the reasons for this difficulty was the fact that I had not resolved the confusion I had about what analysis and interpretation meant in research literature (Movement story 10-1). It was only when I resolved that confusion that a clear path to coherently articulating the sense-making process emerged.

*Making sense
of experience*

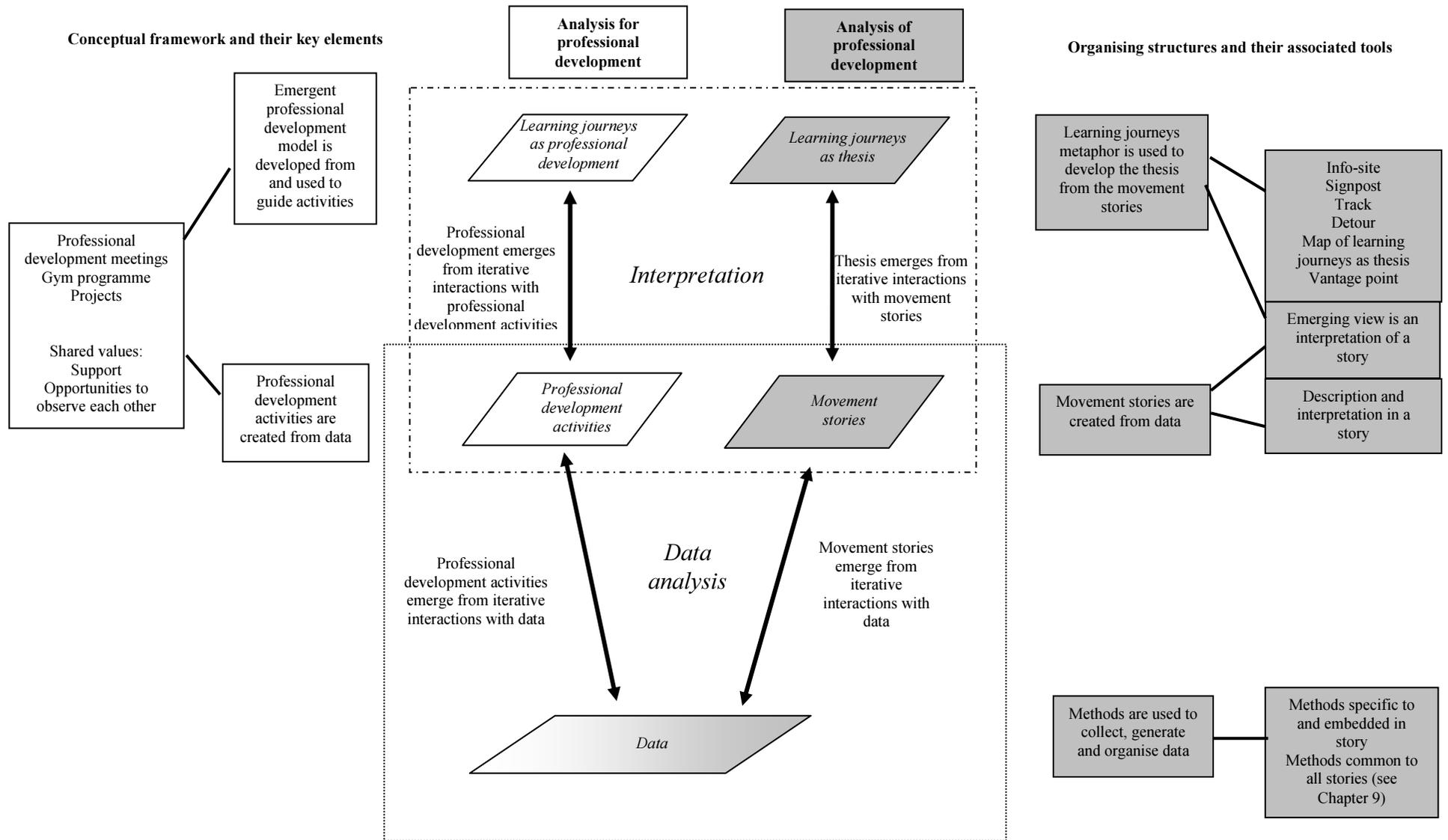
I will articulate the analytical process by focusing on two inter-twining aspect of the process. The first is the emergent analytical framework and the second the strategies for analysis and interpretation that are consistent throughout the learning journeys as professional development and thesis. The former represents a structural view of analysis and interpretation while the latter a process view.

[2] The emergent analytical framework

The emergent analytical framework is shown in Figure 10-1 and is a more detailed view of the structure described in Info-site A-5. The analytical framework highlights the following structural features:

- *two levels of analysis: data analysis and interpretation,*
- *the relationships between data analysis and interpretation for the learning journeys as professional development and thesis respectively,*
- *the inter-relationships between analysis for and of professional development, and*
- *the use of the same set of data for analysis to solve problems and create opportunities for professional development as well as to create movement stories for the thesis.*

Figure 10-1: The emergent analytical framework



**Movement
story 10-2**

[3] Strategies for analysis and interpretation

The framework also highlights emergence as a key process (Vantage point A[4.1]) in data analysis and interpretation. There are two key inter-twining strategies that promoted emergence in the learning journeys. These strategies can be viewed as strategies that attacked incoherence (Fullan, 1999) (Info-site 5-1). The strategies are:

- *creating connections within and across data, stories, activities and interpretations, and*
- *using the hermeneutic circle (Patton, 2002) to inter-relate data analysis with interpretation.*

[3.1] Creating connections

Using this strategy, I made sense of the data and my experiences using Elliot's (2005) chronology, meaning and social context (Info-site 6-1) as connecting threads. For example, I created connections

- *between the past, present and future (chronology),*
- *between my own interests and those of the teachers and children as individuals (meaning),*
- *between individual interests and collective interests (meaning),*
- *among the professional development, the Centre programme and the wider early childhood and Active Movement community (social context),*
- *between the professional development and thesis (meaning and social context).*

**Movement
story 10-2**

In other words, this strategy of creating connections embodied the idea of liberating structures and Fullan's (1999) idea of fusion of change forces (Emerging view 3-2) as its underlying principles. For example, the sampling strategy describes and justifies the specific procedures used to organise "apparently unrelated" data (Chapter 9[4]). In doing so, it created connections among data, stories, activities and themes in the learning journeys in terms of meaning, chronology and/or social context. The use of chronology, meaning and social context as connecting threads is consistent with the overall design of the learning journeys (Figure 5-1) and its analytical framework (Figure 10-1).

[3.2] The hermeneutic circle

According to Patton (2002), the hermeneutic circle can be viewed as an analytical process that is aimed at enhancing understanding. It

"offers a particular emphasis in qualitative analysis, namely, relating parts to wholes, and wholes to parts." (p. 497)

Patton quotes Schwandt (2001) to illustrate the implication of the hermeneutic circle on the process of analysis:

"Construing the meaning of the whole meant making sense of the parts, and grasping the meaning of the parts depended on having some sense of the whole ... [T]he hermeneutic circle indicates a necessary condition of interpretation, but the circularity of the process is only temporary-eventually the interpreter can come to something approximating a correct understanding of the meaning of a text in which whole and parts are related in perfect harmony." (in Patton, 2002, p. 497)

While the notion of a "correct understanding of the meaning of a text" is debatable in a complex reality, the hermeneutic circle is useful in analysis because it involves interpretation in a journey aimed at understanding the parts, the whole and their relationships. In other words, as shown in Figure 10-1, the movement stories emerge when data is analysed hermeneutically with the stories, while the thesis emerges when the stories are examined hermeneutically with the interpretations.

Strategies for analysis and interpretation as relationship strategies

The above movement story suggests that the strategies for analysis and interpretation focus the sense-making process on the relationships between data, data analysis and interpretation in ways that address the local conditions. The local conditions associated with the strategy of creating connections include the idea of liberating structure and Fullan's (1999) change forces (Movement story 10-2[1.1]). The local conditions associated with the use of the hermeneutic circle include the relationship between whole and parts (Movement story 10-2[1.2]), which is consistent with the idea of relationships between the whole and the parts in complexity theory (Davis et al., 2000), the latter representing the journeys' philosophical underpinnings. Furthermore, both strategies promote the process of emergence (Movement story 10-2[1]), a key process (Vantage point A[4.1]), and therefore, a local condition, in the learning journeys. In other words, these strategies are embedded in the philosophical underpinnings of the learning journeys as they embody ideas associated with complexity theory (Emerging view 3-1). At the same time, the data collected and the outcomes of analysis and interpretation represent emergent local conditions of the learning journeys since they were additional factors to consider that emerged during the course of the learning journeys (Emerging view B-2).

The focus of the strategies for analysis and interpretation on creating relationships between data, data analyses, interpretations and local conditions suggests that these strategies can be viewed as a set of relationship strategies in the overall theory of change.

Vantage point D

Views of my learning journeys as a researcher: Looking back and ahead



Preview

In this vantage point, I look back on Chapters 9 and 10 to reflect on the stories of my learning to be a researcher. I then discuss two emerging ideas: (1) the sense-making strategies in the overall theory of change, and (2) the view that the research solutions were my professional development solutions.

I also look ahead to the emerging thesis, identify a problem in the thesis and discuss how I organise my evidence to resolve this problem.

Movement
story D-1

Looking back: Reflecting on my learning journeys as a researcher

This is the final vantage point before I arrive at my final destination. I look back on the learning journeys since the last vantage point, and reflect on the stories and their contributions to this thesis.

Emerging view
D-1

Sense-making strategies in the overall theory of change

[1] The sense-making strategies

The sense-making strategies in the overall theory of change consist of the following elements: (1) the research questions (Chapter 4), (2) the data collection and management strategies (Emerging view 9-1), and (3) the strategies for analysis and interpretation (Emerging view 10-2).

The research questions focus the sense-making process on tracking change and learning in the learning journeys that takes into account the local conditions (Emerging view 4-1); this is the strategy that frames the purpose of the process (Chapter 9[4]). The data collection strategies, on the other hand, creates a fit between (1) the types of data that can be collected to meet the purpose of the sense-making process, (2) the available tools and (3) the problems associated with the tools (Emerging view 9-1). The strategies for analysis and interpretation identify the valued relationships between data, data analysis and interpretations. (Emerging view 10-2).

Taken together, these strategies can help the researcher and professional development coordinator identify actions and ideas that are consistent with the purposes of the sense-making process, the local conditions and their inter-

**Emerging view
D-1**

relationships. They can help to frame our purpose and the relationships as we attempt to make sense of the change processes and outcomes. They are strategies that contribute towards the implementation of change as well as to the monitoring and evaluation of the change and its implementation. This discussion suggests that when developing a theory of change, it is useful to identify and articulate sense-making strategies that address local conditions.

[2] Relationships between elements of the sense-making strategies

The relationship between the three elements of the sense-making strategies is difficult to articulate, and given the complexity of the learning journeys, I argue that it is not desirable to be precise about how they are related. Perhaps the relationship is best described as loosely-coupled. This loose-coupling constitutes partial connections that can allow for successful negotiation of the complexities in the learning journeys (Movement story 3-2[2]). In other words, the sense-making strategies in the learning journeys constitute a liberating structure (Movement story 3-2[2] & Info-site A-4).

[3] Developing sense-making strategies in a theory of change

The above discussions highlight the value of developing sense-making strategies when crafting a theory of change. It suggests there are three elements in the sense-making strategies, all of which are embedded in and embody the local conditions. These elements are (1) strategies that identify the purpose of the sense-making process, (2) strategies that identify what data to collect and how to collect, organise and store the data, and (3) strategies that identify how to make sense of the data we collect. The discussions also suggest that it is possible to identify relationships between the elements of the sense-making strategies to reflect the kind of change that is intended.

Emerging view
D-2

Research solutions as my professional development solutions

The methods and strategies I created represent research solutions I created in my role as a researcher. However, given that Chapters 9 and 10 represent my professional development in the role of a researcher, these methods and strategies can also be viewed as the professional development solutions I crafted in my learning to be a researcher.

Movement
story D-2

Looking ahead: The emerging thesis

As I stand on Vantage point D, I can see the final destination ahead. It is the highest peak in the landscape and within reach, but it still looks like a challenging journey ahead. Now is the time to consolidate all my experiences and the emergent knowledge from the learning journeys to meet the challenges ahead.

What do I know from the learning journeys? How can I use what I know to get to that final destination?

As I ponder upon these questions, insights emerge that help to chart the route ahead.

*Making sense
of experience*

The learning journeys as thesis illustrates a phenomenon that is simultaneously simple and complex. It is simple in the sense that its goals are easily articulated. Firstly, its intended outcomes or goals are (1) to test the main idea that having an underlying theory of change for our professional development can help us to negotiate complex change and craft our own professional development solutions (Vantage point A[2.2]), and (2) to contribute

**Movement
story D-2**

to knowledge about managing professional development and change (Vantage point A[1]).

Secondly, its process goal is to achieve emergent clarity so that this report is emergent as the thesis unfolds and becomes clear at the end (Vantage point A[4]).

Thirdly, there are two evaluation goals or two sets of criteria for on-going evaluation of the learning journeys as thesis. The first is to make decisions that are meaningful, logical and ethical which represents an internal benchmark that emerged from the learning journeys (Emerging view 5-1). The second is to strive for coherence and consistency in the thesis report, which represents an external benchmark set by the wider research community.

However, as Briggs (1992, in Garmston & Wellman, 1999; in Movement story 3-1[2.2]) suggests, inside the above simplicity lurks the complexity of this thesis because as it strives to achieve all of the above, it creates connections among the five different purposes, contributing to the functional complexity of this thesis.

In addition, the evidence for the main idea and the contribution to knowledge are derived from five different but inter-weaving learning journeys. In other words, the same five learning journeys provide evidence for (1) supporting the main idea by identifying the theories of change, the professional development solutions and ways to negotiate complexity, and (2) contributing to knowledge by discussing ideas about managing professional development and change. However, the evidence for both goals are found throughout this thesis document, interspersed among the inter-weaving stories, interpretations and emerging ideas. The dispersed nature of the evidence is characteristic of the emergent and unfolding nature of this thesis report: a piece of evidence unfolds with the unfolding stories and is located at the point of emergence.

Movement story D-2

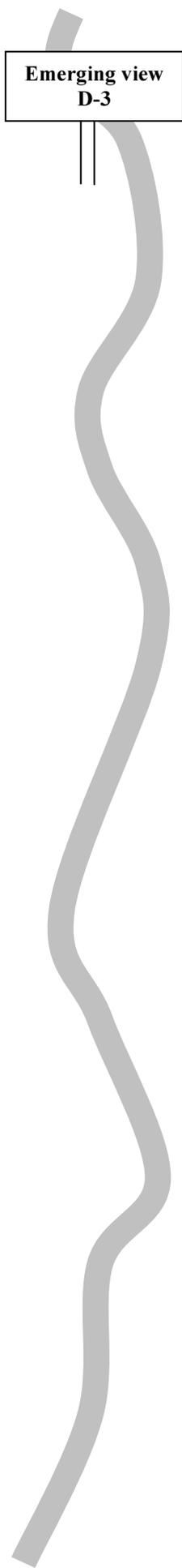
The dispersed nature of the evidence means that it is necessary to organise the dispersed evidence to achieve all of the above five purposes of the thesis, including emergent clarity. This need to organise the dispersed evidence is based on the idea that for knowledge creation or learning to emerge from this thesis, it is necessary to manage the inter-relationships among the different parts of the thesis. This idea is consistent with complexity theory, and draws upon Brown and Eisenhart's (1998, in Fullan, 1999) idea that "complexity theory focuses managerial thinking on the interrelationships among different parts of an organisation ..." (p. 5) (Movement story 3-2[2]). In this case, the focus of the managerial thinking is not on the different parts of the organisation, but on the different parts of the thesis.

Emerging view D-3

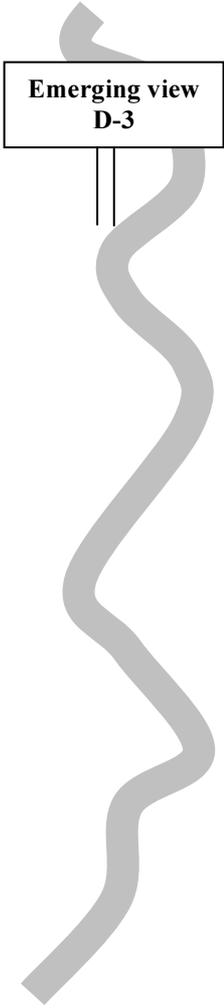
Organising the evidence

Table D-1 summarises the evidence for the main idea and the contribution to knowledge. Its purposes are (1) to provide a big-picture glance of the thesis so far, and (2) to identify and organise the evidence in preparation for the final discussions to support the main idea and to develop this thesis' contribution to knowledge.

Chapter or Vantage point	Evidence for supporting the main idea	Evidence for developing contribution to knowledge
Vantage point A	Articulates the main idea (Vantage point A[2.2])	
Chapter 1	Articulates initial understanding of theory of change. Defines theory of change as strategies for addressing local conditions (Movement story 1-1[3.2]). Suggests that developing a theory of change involves identifying local conditions and developing strategies for addressing local conditions (Emerging view 1-1).	
Chapter 2	Describes gym programme and identifies it as a local condition (Emerging view 2-2).	
Chapter 3	Identifies other local conditions, discusses complexity of relationships (Movement stories 3-	Identifies strategies for change as decision-making strategies (Emerging view 3-2).



	1, Emerging view 3-1). Discusses strategies for change in overall theory of change (Emerging view 3-2).	
Chapter 4	Identifies more local conditions. Discusses research questions (Movement story 4-1).	Identifies research questions as strategy for tracking change and learning (Emerging view 4-1).
Chapter 5	Articulates learning journeys design (Movement story 5-1).	
Vantage point B	Identifies learning journeys design as a professional development and research solution suitable for emergent learning and change (Emerging view B-1). Creates categories of local conditions. Summarises and categorises the local conditions in the overall theory of change (Emerging view B-2[1]).	Discusses the value of knowing categories of local conditions in developing a theory of change (Emerging view B-2[1]). Suggests that professional development and research strategies should complement each other in a professional development effort which includes a research component (Emerging view B-2[2]).
Chapter 6	Identifies emergent professional development model as a professional development solution (Emerging view 6-1). Identifies professional development and research activities and professional development solution as local conditions in the overall theory of change (Emerging view 6-2).	
Chapter 7	Identifies the theory of change for the teachers' first collective learning journeys as embedded in the story about the change, monitoring and evaluation of the preschool gym roster (Emerging view 7-1). Creates graphic reconstructions of the teachers' first collective learning journeys (Emerging view 7-2[1]).	Discusses narratives as a means of articulating a theory of change (Emerging view 7-1). Discusses graphic reconstruction as a means of articulating a theory of change (Emerging view 7-2[2]).
Chapter 8	Identifies the theory of change for the teachers' second collective learning journeys as embedded in the story of and the draft plan for the teacher-helper scheme (Emerging view 8-1). Creates graphic reconstructions of the teachers' second collective learning journeys (Emerging view 8-2[1]). Suggests that embracing ambiguity, uncertainty and emergence is useful when negotiating complex change (Emerging view 8-3).	Discusses issues with the use of graphic reconstruction a means of articulating a theory of change (Emerging view 8-2[2]). Suggests that the theory of change can manifest itself as a theory-in-change (Emerging view 8-1).
Vantage point C	Discusses relationship strategies in the overall theory of change	Discusses the value of creating or identifying relationship strategies in a



	(Emerging view C-1).	theory of change (Emerging view C-1[3]). Discusses the role of the professional development coordinator in managing professional development and change (Emerging view C-2).
Chapter 9	Identifies data collection methods, sampling strategies and strategies for dealing with ethical issues as data collection and management strategies in the overall theory of change. (Emerging view 9-1)	Suggests that prior knowledge is a local condition (Emerging view 9-2).
Chapter 10	Discusses the strategies for analysis and interpretation as relationship strategies in the overall theory of change (Emerging view 10-2).	
Vantage point D	Identifies and discusses the research questions, the data collection strategies and the strategies for analysis and interpretation as sense-making strategies in the overall theory of change (Emerging view D-1). Identifies the research solutions as professional development solutions (Emerging view D-2).	Discusses the value of creating or identifying the sense-making strategies in a theory of change (Emerging view D-1[3]).

Table D-1: Summarising and organising the evidence

Vantage point E

Arriving at the thesis and moving on



Preview

In this vantage point, I draw on all the evidence from previous chapters and vantage points to create the emergent thesis: (1) support the main idea that it is useful to have a theory of change for our professional development and change, (2) contribute to knowledge about theories of change, (3) suggest some applications of theories of change, and (4) argue that this thesis is experimental in the way it is reported.

I also evaluate the thesis and suggest ways to add value to it.

[1] Methodology: Achieving the goals of the thesis

In order to achieve the goals of the thesis (Movement story D-2), the discussions in this final destination will focus on three aspects of the thesis: (1) supporting the main idea, (2) contributing to knowledge, and (3) evaluating the thesis. In addition, in view of the fact that there are no more movement stories or interpretations of these stories in this vantage point, I will present the discussions in regular text. In other words, the organising strategy to separate description from interpretation (Emerging view 10-1) will not apply in this vantage point.

[2] Supporting the main idea

To support the main idea in the context of the learning journeys, I will demonstrate that the teachers at the Centre had three theories of change for our learning journeys and that these theories of change did help us to negotiate complex change and craft our own professional development solutions.

[2.1] The overall theory of change for the learning journeys

This was the theory of change that emerged from planning and living the learning journeys. It consists of a general description of the local conditions in the learning journeys, the philosophical assumptions and values that underpin the professional development (Emerging view B-2[1]) and three sets of strategies for addressing these local conditions. These sets of strategies are (1) the general strategies for making decisions in meaningful, ethical and logical ways that create multiple value (Emerging view 3-2), (2) the relationship strategies to identify the valued relationships and how they could be achieved (Emerging view C-1), and (3) the sense-making strategies (Emerging view 10-2). Given that the strategies

embodied and were embedded in complexity theory, this overall theory of change was suitable for managing change that had a high degree of complexity and uncertainty.

The above theory of change helped me, in my roles as professional development coordinator and researcher, to negotiate the complexity and uncertainty of the learning journeys (Emerging view 3-1). It also helped me and the teachers craft several professional development solutions. The first was the dynamic professional development model that allowed us to engage in professional development using the SPARC funding and after it ended. This professional development model was the learning theory that co-emerged with the theory of change (Emerging view 6-2). The second was the professional development and research activities that the teachers and I engaged in that benefited us individually and collectively (Emerging view 6-2). The third was the tailored research solutions that I created for the learning journeys that included the research design (Emerging view B-1) as well as methods for collecting, analysing and interpreting data (Emerging view D-2).

[2.2] The theory of change for the teachers' first collective learning journeys

The theory of change for the teachers' first collective learning journeys is embedded in the narratives (Emerging view 7-1) and the graphic reconstructions (Emerging view 7-2) that I created about the change, monitoring and evaluation of the preschool gym roster. Although changing the roster represented a rather simple change, two other activities increased the complexity of this change process. The first was the introduction of the monitoring and evaluation activity as a professional development activity (Emerging view 7-3) and the second, the

creation of the interim movement story “Change lessons: Playing with the gym roster” (Movement story 8-1[3] & Figure 8-3).

The outcomes of this increased complexity of the change process were the creation of new knowledge and practices, which represent professional development solutions. The new practices were the new roster (Emerging view 7-3) and the teacher-helper scheme (in its original form) (Movement story 8-1[1] & Figure 8-3) while the new knowledge were the teachers’ shared values and my emerging knowledge about evaluation (Emerging view 7-3). In other words, it is possible to suggest that the new practices and knowledge arose from the complex interactions of three activities: (1) the change in the gym roster, (2) the evaluation of the roster as a professional development solution; and (3) the creation of the interim movement story as a research solution.

[2.3] The theory of change for the teachers’ second collective learning journeys

The theory of change for this learning journeys is embedded in the narrative, the draft plan and the graphic reconstructions of the teacher-helper scheme (Emerging views 8-1 & 8-2[1]), and resulted in a change to our practice in the form of the successful implementation of the scheme (Emerging view 8-1). This change was a more complex change effort than the change, monitoring and evaluation of the gym roster for three reasons. Firstly, it was an emergent and unintended change (Emerging view 8-1) that continued to evolve even after we implemented it (Emerging view 8-3). Secondly, it involved the nursery children and teachers and required a certain level of collaboration among the nursery and preschool teachers to resolve issues with the scheme (Emerging view 8-3). Thirdly, it was a scheme that was embedded in other aspects of Centre life and, consequently, constantly

competed and continues to compete for teachers' time and attention (Emerging view 8-3).

In addition to the successful implementation of the scheme, this professional development activity also resulted in other insights. The first was my deepening understanding of what Hargreaves (2000) calls institutional knowledge creation (Emerging view 8-3), and the second an insight that negotiating complex change in our everyday practice involved embracing uncertainty and emergence (Emerging view 8-3).

[3] Contributions to knowledge: Emergent understandings about theories of change and managing change

[3.1] Summarising the emergent understanding of theories of change

While there are many definitions of theories of change (Movement story 1-1[3.2]), in this thesis, I have described theories of change as strategies for addressing local conditions (Emerging view 1-1). In simple terms, perhaps it is possible to describe a theory of change as the *what*, *how* and *why* of change. The *how* includes questions about *who*, *when* and *where*. The *why* are justifications of the *what* and *how* based on philosophical, design and practical constraints.

The evidence in this thesis suggests that local conditions can be categorised as philosophical underpinnings, day-to-day realities and emergent local conditions (Emerging view B-2[1]). I argue that it is useful for teachers embarking on a change effort to recognise what counts as local conditions, although it is possible that the categories of local conditions can be different in other settings and/or change efforts. In addition, it is useful for teachers to recognise ideas from outside the centre that can be useful in the change effort (Emerging view C-1[1]).

Fullan (1999) hints at what can count as local conditions and external ideas when he argues that organisations that are good at creating knowledge

“tap into the values, meanings, day-to-day skills, knowledge and experiences of all members of the organization (including the outside-the-organization connection) and make them available for organizational problem-solving.” (p. 16)

The evidence also suggests that it is possible to categorise the strategies that we create to address the local conditions. Each category consists of a set of strategies that addresses different facet(s) of the change effort. The sets of strategies in the learning journeys address decision-making, relationships and sense-making facets of the professional development and change (Vantage point E[2.1]). Embedded within each set is a strategy that identifies the values that underlie how teachers can go about making decision, creating relationships and making sense of the professional development and/or change. In addition, the strategies also take into account the day-to-day realities or practical constraints of the change effort in terms of existing knowledge and available resources. This suggests that, however we categorise the strategies we create when developing theories of change, it is important to identify the purpose of the strategies, their underlying values and relationships and the day-to-day realities that constrain the change effort.

This thesis also identifies the relationships (1) between the professional development and research strategies (Emerging view B-2[2]) and (2) between the strategies that constitute the sense-making strategies (Emerging view D-1[2]). It describes the former as complementary and the latter as loosely-coupled. I argue that it may be useful for teachers creating a theory of change to articulate the relationship between and within the different sets of strategies to have a sense of how they fit and do not fit together. This process can help teachers to identify the complementarity and tensions in strategies, which, in turn, can contribute towards resolving the tensions.

[3.2] Multiple theories of change

The three theories of change in the learning journeys are distinct from each other and have their own internal coherence. However, they are inter-related in several ways.

Firstly, some aspects of the theory of change for the teachers' first collective learning journeys overlap with those of the second collective learning journeys while others emerged from it. For example, the teachers' shared values emerged from the first collective learning journeys as a key factor that made changing the gym roster meaningful to us (Movement story 7-1[4] & Figure 7-6). Later, we used those same shared values as one of the reasons for having the teacher-helper scheme (Movement story 8-1[1] & Figure 8-3).

Secondly, both theories of change for the teachers' collective learning journeys were embedded within the overall theory of change because both collective learning journeys were embedded within the overall learning journeys.

Furthermore, it is possible to view the overall theory of change as a theory of change that addressed local conditions at more philosophical and strategic levels, and the other two theories of change as theories at more practical levels that addressed specific changes within the overall learning journeys.

This discussion suggests that a professional development and/or change effort can have multiple theories of change. Each theory of change can be distinct from each other and at the same time, they can overlap and be nested within each other. This idea of multiple, overlapping and nested theories of change is comparable to the idea of multiple, overlapping and nested cases in case studies (Patton, 2002; Yin, 2003; Scholz & Tietje, 2002).

[3.3] Predictive and explanatory theories of change

Patton (2002) suggests that theories of change can be predictive or explanatory (Movement story 1[3.2]). In this thesis, the theories of change for the overall learning journeys and the teachers' first collective learning journeys can be viewed as explanatory because the narratives and graphic reconstructions were created after the changes.

However, the theory of change for the teachers' second learning journeys contained a mixture of explanatory and predictive elements (Emerging view 8-1). The explanatory theories of change are embedded in the movement story about the teacher-helper scheme (Movement story 8-1) and in the graphic reconstructions (Emerging view 8-2) of the scheme. These were created after the learning journeys ended. In addition, there is also an explanatory theory of change in the interim movement story "Change lessons: Changing the preschool gym roster" (Appendix H) that pertains to the emergence of the scheme and its tinkering phase (Movement story 8-1[1] & [2]). This was explanatory because the story was created during the change process to explain the outcomes of the scheme at that point in time.

The predictive elements of this theory of change, on the other hand, are embedded in (1) the critical reflections of the teacher-helper scheme in its initial form (Appendix H), and (2) the draft plan of the teacher-helper scheme (Appendix J). Both were created during the learning journeys and had predictive elements that were intended to influence the future outcomes of the change.

The above evidence supports Patton's (2002) assertion that theories of change can be explanatory or predictive. However, I also argue that, based on the evidence, theories of change can be dynamic entities that are created from the inter-play

between explanatory and predictive elements. For example, teachers could create a predictive theory of change to implement, monitor and evaluate a change effort. As part of the monitoring and evaluation process, they could monitor and evaluate the changes at different points in time to (1) explain the changes so far (create an explanatory theory of change) and (2) use the explanatory theory of change to refine the predictive theory of change. Such a dynamic theory of change can perhaps be described as a theory of change that co-emerges with the change effort.

[3.4] Ways of representing theories of change

In this thesis, I have represented the theories of change in several ways: (1) as narratives (Emerging view 7-1), (2) as graphic reconstructions (Emerging view 7-2[2]), (3) as a draft plan (Appendix J), and (4) in terms of local conditions and strategies (Emerging view B-2). I have also discussed the value and limitations of narratives (Emerging view 7-1) and graphic reconstructions (Emerging views 7-1[1] & 8-2[2]) as means of representing the theories of change, discussions which carry two implications.

The first implication is that there is no ideal way of representing a theory of change because every form of representation has its value and limitations. The second is that it may be useful to consider using multiple ways of articulating a theory of change as these different ways together can help us to create a more holistic understanding of the theory of change.

[3.5] Crafting theories of change to manage professional development and/or change

The overall theory of change for the learning journeys is a co-emergent theory of change to manage change that is emergent (Vantage point E[2.1]). However, while change is ubiquitous, it is a complex phenomenon that can manifest itself in

many ways (Info-site 4-1). Consequently, Fullan's (1999) reminder that there can never be a definitive theory of change is worth remembering (Movement story 1-1[4]) and the theory of change we develop to manage a particular change is contingent upon the type of change we are dealing with. We need to craft our own theory of change for each particular effort.

How can we craft our own theory of change when planning for or managing professional development and/or change? The definition of a theory of change (Emerging view 1-1 & Vantage point E[2.1]) suggests that creating a theory of change involves identifying what the local conditions are and creating strategies that address these local conditions (Emerging view 1-1). This thesis has also argued that knowledge of the following facets of theories of change can help us to recognise what they can look like: (1) that there are different categories of local conditions and strategies (Vantage point E[3.1]), (2) that there can be several theories of change which can overlap and be nested within each other (Vantage point E[3.2]), (3) that a theory of change can be explanatory, predictive or involve an inter-play between the two (Vantage point E[3.3]) and (4) that we can articulate our theories of change in different ways (Vantage point E[3.4]).

However, although knowledge about theories of change can help us to create a theory of change, crafting a theory of change is an art. It requires that we engage in the process of crafting the theory of change to experience what it looks, feels and sounds like in the context of the change we are undertaking, and reflecting on the experience to learn from it and to refine the theory of change if necessary.

Fullan (1999) gives the following advice about crafting our own theories and actions:

“As you follow a process of continually converting your tacit knowledge about change into explicit change knowledge, refining and marrying it with insights from the change literature, you begin to craft your own theories of change. You become a critical consumer of innovation and reform as you increase your capacity to ‘manage’ the change process, including tolerance of a certain degree of uncertainty, and greater trust that if you have the right ingredients things will work out more times than not. Ultimately, ... no one can solve your change problems but yourself.” (p. 29)

Fullan’s suggestion on marrying insights from change literature suggests that this thesis can be of value to teachers embarking on a change effort in their own setting in the sense that it contains stories and insights about professional development and change in a different setting. When viewed as a case study of professional development and change, it can contribute to useful understanding because these stories and insights provide “a full and thorough knowledge of the particular” (Stake, 2000, p. 22; in Vantage point A[1]) that teachers may recognise as transferable to their own settings. In other words, this thesis can serve as an external idea and/or a starting point for teachers managing change in their own setting.

[3.6] The role of the professional development/change coordinator in managing professional development and/or change

The role of the professional development coordinator in the learning journeys has been to identify or create relationships between different events, ideas, actions and decisions, and share these with teachers so that they can collectively act on these relationships to benefit themselves and children (Emerging view C2).

Furthermore, as an insider, the coordinator has access to the tacit knowledge within the centre, and is able to manage the knowledge conversion processes that will allow teachers to convert, share and amplify tacit and explicit knowledge across individuals and groups (Info-site B-1).

When viewing the Centre’s Active Movement community as a community of practice (Emerging view 2-1), I compare the role of the professional development

or change coordinator as described above to that of a community coordinator in a community of practice (Wenger *et al.*, 2002). According to Wenger *et al.*,

“a community coordinator is a community member who helps the community focus on its domain, maintain relationships, and develop its practice. The coordinator’s time-typically 20 to 50 percent- is frequently funded through a dedicated budget created for this purpose.” (p. 80).

Wenger *et al.* also identify several important tasks associated with the role, including identifying important issues in the community’s domain, fostering community members’ personal and professional development as well as helping to build the community’s practice.

The above discussion highlights the value of this role in managing the inter-play between the stable core of knowledge in the community and the new learning arising from professional development and/or change efforts (Movement story 3-2[4.3]). It suggests that the coordinator’s key role is to manage the knowledge used and created in the change effort in ways that benefit individuals, groups and the organisation.

However, the discussion also suggests that the professional development coordinator’s role should be distinct from the teacher’s role so that the teacher who undertakes this role is assured that he/she has the time to fulfil the coordinator role. This implies that for this approach to managing professional development and change to work, two conditions need to be met. Firstly, this role needs to be supported by the management of early childhood centres. Secondly, centres need to be in a financial position to pay for this role. If these conditions are not met, it raises the question of what some other alternative approaches may be.

[3.7] Limitations of creating a theory of change to manage professional development and change

Fullan (1999, in Movement story 1-1[4]) argues that even with a well-worked out theory of change, there is no guarantee that our change effort will work. His argument suggests that creating a theory of change as a means of managing professional development and change is not a silver bullet or panacea for successfully managing change. Although a theory of change suggests a detailed plan for change, it is useful to remember that when negotiating complex change, it may not be desirable to create a theory of change that is too detailed. Details in a plan give it structure, but I draw on Brown and Eisenhardt's (1998, in Fullan 1999; in Movement story 3-2) idea that too much detail suggests too much structure that can create gridlock. This implies that there is a need to balance the implementation details in a theory of change so that there is enough clarity for teachers to understand their individual and collective roles and responsibilities in the change. At the same time, the balance gives teachers the agency to negotiate uncertainties.

Extending on Fullan's (1999) argument, I assert that knowledge arising from this thesis does not guarantee success in change management, and that this knowledge is better described as a starting point for learning to manage change. There are several possible reasons for this assertion.

Firstly, the ideas about theories of change that has emerged in this thesis have been derived from mainly explanatory theories of change (Vantage point E[3.3]). This is a limitation of this thesis, which raises questions about the transferability of these ideas in the context of creating predictive theories of change. Secondly, crafting a theory of change is an art and we need to develop the skills in that art by engaging in it and learning from the experience (Emerging view E[3.6]). Thirdly,

even if we know how to craft a theory of change, it may be possible that some facets of our theory of change exists as theory-in-change (Emerging view 8-1) that are difficult to articulate because these facets are embedded in the tacit knowledge of life at the centre. This difficulty is perhaps more pronounced for professional development and change coordinators who are not insiders (Vantage point E[3.6]) or observing participants (Info-site 9-1).

[4] Contributions to knowledge: Possible applications of theories of change

[4.1] Developing an Active Movement community of practice

The local conditions in the theories of change in the learning journeys reflect an understanding of the subtleties of life at the Centre while the strategies suggest strategies that focused on using the local conditions to solve a problem and/or create an opportunity. When the strategies in the theories of change resulted in a change, the change re-shaped the local conditions.

The nature of the change above resonates with the idea of adaptive change that characterises complex adaptive systems. According to Johnson (2001), complex adaptive systems are change agents that use local rules between interacting agents to create higher level of behaviour well suited to the environment. For that adaptive behaviour to emerge, Johnson lists four conditions that need to be present in the interactions of the change agents. I interpret these conditions to mean that individual agents need to be able to observe, interpret and evaluate their actions and interactions in their immediate environment, and have the power or agency to influence the environment.

I suggest that, in the learning journeys, the teachers were the change agents, our understandings of the local conditions and strategies constituted the local rules while the changes we made to our practice represented the behaviours that suited our Centre environment. The professional development and its liberating structure gave us the power and agency to influence our Centre environment. The idea of viewing ourselves as complex adaptive systems helped us to learn to live creatively to adapt to our environment and change it.

The idea of complex adaptive systems bears some resemblance with Fullan's (1999) idea of fusing change forces. It suggests that as complex adaptive systems we can use ideas and the power we have to change our environment. However, the idea of complex adaptive systems makes no references to moral purpose. It suggests that we can be creative and adapt the environment to suit ourselves without considering the impact of our actions on others. This is fusion of ideas and power without moral purpose, which can be lethal. This idea of fusion of ideas and power without moral purpose begs the question: In a world that is becoming increasingly complex, diverse and uncertain, how do we balance the multiple interests and perspectives to create a moral purpose for our change efforts that we can all agree with?

Wenger *et al.* (2002) suggest the idea of creating multiple values in what we do. I interpret this to mean that in our effort to create change, we do not focus on just one moral purpose but many moral purposes for the different people who are part of the change effort. Garmston and Wellman (1999) suggest three simple rules to achieve multiple moral purposes, that is, by taking care of our individual self, our collective self and our values. Wenger *et al.* (2002) also suggest creating a community of practice as a social structure that creates value for individuals, collectives and organisations.

Theories of change, complex adaptive systems, fusion of change forces, communities of practice. In a landscape of growing interest in Active Movement in the early childhood community, these are ideas that are worth investigating in the context of developing an Active Movement community of practice. Some possible questions relevant to this investigation may include:

- How do we go about creating an Active Movement community so that children, teachers, parents, early childhood centres, SPARC and the Ministry of Education can create their own value in being part of the community?
- What theories of change can we develop to manage and guide this change?

[4.2] Theories of change in everyday teaching and learning

As I reflect on my experiences in the learning journeys, I can see a connection between the idea of a theory of change and how I learnt to plan for a lesson. I had no name for this approach but I shall call it a systems analysis approach to planning. This was the approach that I had learnt to use while I was doing my initial teacher-training to be a physical education teacher as a fresh engineering graduate. I learnt then that the lessons that I regarded as ‘successful lessons’ were those that took into account factors such as what I was teaching, what I wanted the children to learn, who the children were, where my teaching was going to take place, what equipment I had available and so on. With these factors in mind, I would then visualise how the lesson would unfold, perhaps as a thought experiment, and changed my plan if I needed to as the thought experiment unfolded.

Later, with more experience and an embrace of complexity theory and the idea of liberating structures to allow children to create their own meanings from learning

experiences, I still used the same approach but in a different way. I learnt to create liberating structures for learning experiences so that I could “allow the learner to adjust the difficulty and otherwise modify tasks to suit their own needs without compromising the intention of the activities” (Davis *et al.*, 2000, p. 142). Looking back, I realise that my systems analysis approach to planning bears a close resemblance to the idea of a theory of change, but in the context of everyday teaching and learning. Perhaps the idea of a theory of change can be as relevant to planning for a lesson or activity as it is to planning for professional development.

The above reflections raise some interesting questions about the relationship between theories of change and teaching and learning in the everyday context, questions that I believe are as relevant to primary and secondary teachers as they are to early childhood teachers. Do teachers articulate a theory of change when they plan for an activity or lesson? How do they do it? What is the value of having theories of change to underpin our everyday practice? What are the issues with it? Are there differences between the theories used by experienced and beginning teachers? How does our worldview and understandings of the nature of change impact on the theories of change that we use? How do we develop our theories of change? Do teacher education institutions ‘teach’ teachers to use theories of change? How is the idea of theories of change in everyday practice relate to ideas such as reflective practice (Schon, 1995), knowledge conversion (Nonaka & Takeuchi, 1995), action research (Sagor, 2005; Irvine-Piggott, 2005) as well as teaching styles (Mosston & Ashworth, 2002). An investigation into some of these questions may provide useful insights that can help improve the effectiveness of professional development efforts, especially in the context of the Ministry of Education’s (2006) initiative to support beginning teachers towards full registration.

[5] Looking back and moving on

As I approach the end of my thesis, I look back on the learning journeys as professional development and thesis. I now recognise it as action research since it has involved research in, of and for action (Sagor, 2005) all jumbled up in the unfolding landscape and tapestry of the learning journeys. I now also recognise the difference between a ‘core’ and a ‘thesis’ action research projects (Coghlan & Brannick, 2005), with the learning journeys as professional development as the ‘core’ action research project and the learning journeys as thesis as the ‘thesis’ action research project. Our projects to change and evaluate the preschool gym roster and to implement the teacher-helper scheme were also action research projects embedded within the core project.

[5.1] Balancing experimentation with clarity in the thesis

The ‘thesis’ action research project is my own professional development that investigates the main idea that having a theory of change for our professional development and change can help us negotiate complex change and craft our own professional development solutions (Vantage point A[2.2]). During the course of the investigation, other goals have emerged (Movement story D-2): (1) to contribute to knowledge about managing professional development and change; (2) to achieve emergent clarity in the thesis report; (3) to be consistent with the evaluation goals.

The strategies used to achieve the above goals in my thesis investigation include: (1) creating a complex relationship between the professional development and thesis (Vantage point A[2.1] & Info-site A-3), (2) identifying the organising process and creating the organising structures and the associated tools to support the process (Vantage point A[4]), (3) creating a complex relationship between

the chapters and vantage points (Vantage point A[5]), and (4) modifying the research questions (Emerging view 4-2). These strategies are in addition to those articulated in the overall theory of change (Emerging view E[2.1]) and have been created to address and negotiate the complex relationships between the thesis and the professional development. All these strategies address the local conditions of the thesis, and consequently, I argue that this thesis report constitutes a theory of change for the thesis investigation.

A major and co-emergent outcome of these strategies are my own ways of conceptualising my ideas and reporting the investigation: blending narratives (movement stories) and academic prose (interpretations in movement stories and emerging views) with other forms of representation such as previews, tables, info-sites, diagrams, maps, graphic representations and photographs. These are my professional development solutions to the problem of representing the thesis investigation, solutions which give rise to a report that is experimental and differs markedly from a normal thesis report (Christchurch College of Education, 2005; Phillips & Pugh, 2000; Kincheloe & Berry, 2004). In arguing that this thesis is experimental in its reporting, I draw on Mayo (2003), Scholz and Tietje (2002), Davis *et al.* (2000), Lather (2000a, 2000b) and Sparkes (2002) to support the use of multiple and/or experimental forms of representation. Mayo (2003) writes of her PhD thesis:

“The writing is experimental in places, yet I have erred, always, on the side of clarity: because the arguments I discuss are complex I have used all the resources I can muster to make textual sense of them.” (p. 39)

Eisner (2001, p. 139, in Sparkes, 2002) also supports the use of experimental writing in research and warns of the need to balance experimentation with clarity.

He writes:

“It is critical that there be sufficient clarity to render a work useful to someone. Put another way, researchers who employ inventive ways of presenting what has been learned have an obligation to create something that a reader or viewer will find meaningful.” (p. 229)

In this thesis, clarity is achieved through the process goal of emergent clarity (Movement story D2, Vantage point A[4]). The above discussion suggests that in experimenting with the thesis presentation, the strategies in the theory of change for the thesis have taken the need for clarity into account.

[5.2] The problematic size of the thesis report

In this thesis report, discussions of issues and tensions in and/or limitations of different facets of the thesis are interspersed in the text (e.g., Emerging view B-3, Emerging view 7[1], Emerging view 7-2[1], Emerging view 8-2[2], Chapter 9 [4], Chapter 9[5], Emerging view 10-1, Vantage point E[3.6], Vantage point E[3.7]). I will focus this discussion on a major problem of this thesis: the size of the report.

I acknowledge that this thesis has exceeded the word limit normally expected of a master's thesis. This outcome arises from the interactions of the following articulated features of this thesis, and itself represents an emergent outcome.

Firstly, this thesis deals with complex phenomena (Vantage point A[4]), and is itself complex in the sense that it is composed of many inter-related facets.

Examples of these facets include: (1) it is a thesis that embodies and is embedded in the professional development (Info-site A3), (2) it is created from five different but inter-related learning journeys (Info-site A-12), (3) it tries to achieve five emergent goals (Movement story D-2). This has necessitated descriptions and discussions of the different facets and their inter-relationships to make the report coherent, which, however, add to the size of the report.

Secondly, the thesis report is experimental in nature (Vantage point E[5.1]); it strives to be consistent with the thesis investigation in the sense that it embodies

and illustrates the characteristics of emergence and uncertainty that are associated with complex phenomena (Vantage point A[4]). In other words, the thesis report tries to be consistent with the thesis investigation in terms of the emergent nature of their organisation. Emergence is a bottom-up process (Johnson, 2001), and the use of emergence as an organising process (Vantage point A[4.1]) means that the thesis embodies a bottom-up strategy in its development. As a result, this thesis report contains pieces of evidence that unfold in different parts of the text in ways that may appear to be unorganised.

I argue that this report is not unorganised. It is organised by the organising structures (Vantage points 4[2] & [3]) that help to create relationships among the pieces of evidence, and which represent a top-down organisation strategy. Given that incoherence and confusion can arise in complex and emergent phenomena (Info-site 5-1), the bottom-up and top-down strategies together help to attack the potential incoherence in the thesis to achieve emergent clarity (Vantage point A[4]). However, it was necessary to describe and explain the use of these structures and strategies, which further adds to the size of the report.

To summarise the above discussion, in experimenting to make the thesis report both coherent and consistent with the nature of its investigation, I have struck a tension and have been unable to resolve this tension. This is the tension between achieving coherence in the report and consistency between the thesis report and investigation on the one hand, and meeting the word requirement of the thesis report on the other. I have tried over and over again to reduce the number of words while striving to achieve and maintain the thesis' coherence and consistency, and admit that I have not been successful.

Perhaps, this tension is an example of what Garmston and Wellman (1999) call wicked problems or problems that have unclear boundaries, recur and fold back on themselves. According to Garmston and Wellman (1999), wicked problems are characteristic of complexity and cannot be solved; at best, we can learn to live with them effectively. In acknowledging this thesis as a wicked problem, I live with the knowledge that I have chosen to create a thesis that is internally coherent and consistent. At the same time, I accept that there are unresolved tensions arising from that choice. I also acknowledge that these unresolved tensions represent further opportunities for learning (Emerging view 8-3) but it is beyond the scope of this thesis to explore these opportunities.

[5.3] Evaluating the thesis

There are two ways in which this thesis can be evaluated. The first is to evaluate the extent to which this thesis has met the five set goals (Emerging view D-2). In other words, the evaluation involves asking the following evaluative questions:

- To what extent has the thesis supported the main idea?
- To what extent has it contributed to knowledge about managing professional development and change?
- To what extent has the thesis report achieved emergent clarity?
- To what extent has the thesis involved making decisions that are meaningful, logical and ethical?
- To what extent is it coherent and consistent?

The second way is to evaluate the thesis based on the view that the thesis investigation was action research. Coghlan and Brannick (2005) argue that action

research should be judged based on its own criteria, not those of positivist science. They suggest criteria such as being aware of choices we make and articulating them to ourselves, our co-inquirers and our readers (Reason, 2003, in Coghlan & Brannick 2005), and being rigorous in the ways we have generated, explored and evaluated our data, questioned and interpreted events and actions.

Coghlan and Brannick's idea of quality in action research resonates with Clough and Nutbrown's (2002) notion of the persuasiveness of a research. The latter argue that the persuasiveness of a piece of research relates to its methodology, which focuses on explaining and justifying the particular methods used in our research. In this thesis, its methodology is inter-woven throughout this document. This raises a question about the relationship between the thesis methodology and the theory of change for the thesis (Vantage point E[5.1]). In viewing methodology as Clough and Nutbrown's (2002) "painstaking justification we offer for the decisions we have made" (p. 28) (Vantage point A[3]), I suggest that the thesis methodology and its theory of change can be seen as one and the same. Perhaps another way to define a theory of change is as a methodology of change that takes into account philosophical, design and contextual considerations related to that change.

Coghlan and Brannick (2005) also add that

"(t)he value in action research is not whether the change process was successful or not, but rather that the exploration of the data- that is how a particular change was managed- provides useful and interesting theory which may contribute to learning on the subject of change management." (p. 28)

I leave the reader to judge for himself/herself the answers to the evaluative questions as well as the persuasiveness, quality and value of this thesis as action research.

[5.4] Creating added value ...

Throughout the learning journeys, I have focused on creating multiple value (Wenger *et al.*, 2002) as one of my strategies to increase the value of the learning journeys. To recap, Wenger *et al.* suggest that value creation can mean creating short-term, long-term, tangible, intangible, strategy-implementing and strategy-making value for different members of a community of practice (Movement story 3-2[4.2]). In this thesis, I have already described the value of the change in the gym roster and the teacher-helper scheme for the teachers in terms of our practice and its value for the children at the Centre (Movement stories 7-1 & 8-1). I have also articulated the value of this thesis in helping me develop a better understanding of the notion of theories of change (Vantage point E[3]). In keeping with this idea of value creation, I suggest some ways to create more value from this thesis in ways that can benefit the Active Movement community.

[5.4.1] ... for teachers and my centre

Given that this thesis is my personal professional development (Vantage point E[5.2]), much of the learning in and around theories of change is my own personal learning. The teachers have created their own learning in the learning journeys (Emerging view 6-2) and I suggest a strategy for sharing the learning in and about theories of change with the teachers, should they think it worthwhile learning. The strategy involves the teachers, as a team, testing out the usefulness of having a theory of change in other change initiatives. In the same way that I was testing Fullan's (1999) thesis in the context of our professional development, we can subject my thesis to further testing in a different change effort. In doing so, we can hopefully develop both our individual and shared knowledge in and about theories of change and change management. This, in turn, can help us develop our individual, shared and organisational capacity to manage change.

[5.4.2]... for SPARC

In my experience as an early childhood teacher, the idea of providing physically active play is common knowledge in the early childhood community. However, the value of Active Movement as learning in, through and about movement (Movement story 2-1[2]), and the possible pedagogies to achieve these are relatively new to many early childhood centres and teachers. To increase teachers' capacity to provide quality Active Movement experiences in the context of their own centres, I suggest that this thesis be tested out at other centres that are interested in introducing and developing their own Active Movement programmes that tailor to their local conditions.

However, that would require developing a base of practitioners knowledgeable in Active Movement and skilled in the art of creating theories of change to facilitate the process with the teachers at the centre (Vantage point E[3.5]). It is worthwhile considering a collaboration between SPARC and the colleges of education within universities to create professional development opportunities for early childhood centres to complement the efforts of the Active Movement advisers at the regional sports council. For example, the University of Canterbury already has a team of professional development facilitators who work with early childhood centres to create professional development opportunities in curriculum areas such as te reo Maori and learning stories. Such a collaboration can be seen as a strategy that takes into account the local conditions of the early childhood landscape, at least in Christchurch and Canterbury, where facilitated professional development is a local condition.

[5.4.3] ... for myself

Over the course of the learning journeys, I am drawn to the idea of a bricolage as an approach to inquiry (Kincheloe & Berry, 2004). In an e-mail to my supervisors, I described my understanding of the idea.

“The word ‘bricolage’ comes from the French word ‘bricoleur’ to ‘describe a handyman or handywoman who makes use of the tools available to complete a task’ (p.1). Essentially, the authors use the term ‘bricolage’ in the context of research to ‘signify the use of a variety of research tools and ways of seeing’. They then reconceptualise the notion of rigour in research in a way that they believe is both culturally sensitive and socially transformative. In my interpretation, they then set about developing an approach to research that relies on multiple methods in a way that fits their notion of rigour. I see this as creating a bricolage model of research/inquiry.

Kincheloe and Berry suggest a point-of-entry text (POET), which can be a story, picture, essay, etc., as a starting point for using this model of research. From this POET, it is possible to generate a bricolage map (very much like a brainstorm or mind map) which shows areas for further explorations or inquiry from the POET. The generation of areas for further exploration can come from the researcher himself/herself as well as others who have read the text and are helping to critique it. The researcher/inquirer can then go about visiting these different areas in different and multiple ways to gain a deeper knowledge of the area and its relationships to the POET, and in the process, change the nature of the text. The authors give an example from the postgraduate courses they have conducted in the ‘bricolage’ and in their example, students critique each other’s POETs and in doing so, open up areas for further inquiry.” (E-journal, 9th October 2005)

As I let my mind wander back over the experience of developing this thesis, I wonder to what extent I have been using a bricolage approach to inquiry. The stories “Playing with the gym roster” and “Moving towards sustainable practices” have been told and retold for different audiences and purposes (Chapter 7[1]). Can I view the original versions of the stories that I wrote for the teachers as POETs for developing this thesis?

In addition, I ask how I can use this thesis as a POET for a future action research project to further develop Active Movement communities of practice within other centres and in New Zealand (Vantage point E[4.1]) involving collaborations between myself, SPARC and the universities (Vantage point E[5.4.2]). Such a project may involve taking on the role of a professional development coordinator who is not an insider or observing participant. Given the issue raised about the role of the professional development coordinator (Vantage point E[3.6]), it

suggests that this project would test the thesis in a context where there is a difference in the role of the professional development coordinator (Vantage point E[3.7]), which, in turn, brings me back to the problem of transferability (Movement story 1-1[2.2]). How can I use what I have learnt in this thesis to negotiate a new problem of transferability?

As I ponder upon these questions and ideas, my thoughts wander back to Wordsworth's (1804, in Hurford, 1994) poem at the beginning of this thesis (p. iv). I think of these questions and ideas as exciting wonderings for a wanderer, but wonderings for another learning journey.

Section 4

Summarising the learning journeys

Conclusion

This thesis argues that to manage professional development and change in our own teaching setting, it is useful to have a theory of change to support these efforts. A theory of change is a set of strategies to guide and support the change in ways that address local conditions.

This thesis supports the main idea that having a theory of change for teachers' professional development and change can help teachers to negotiate complex change and create their own professional development solutions. It argues that (1) the process of developing a theory of change can include articulating local conditions and strategies that address these conditions, (2) theories of change can overlap and be embedded within each other, (3) theories of change can be viewed as plans, explanations or the inter-play between plans and explanations, (4) there are different ways to articulate theories of change, (5) there are limits to the extent to which we can or should articulate them, (6) it is useful to articulate relationships between strategies to identify and, if possible, resolve tensions in the relationships.

This thesis also argues that the theories of change we develop depend on the nature of the professional development or change that we create. A theory of change that embodies the process of emergence is useful for negotiating professional development and change which are complex and uncertain, where the goals are initially unknown. This thesis also discusses the value of the role of a professional development or change coordinator in managing the knowledge used and created in ways that benefit individuals, groups and the organisation.

This thesis argues that (1) the thesis investigation represents my learning journeys to create a thesis, (2) the thesis report constitutes a theory of change for the thesis investigation, and (3) the thesis is experimental in the way that it is reported.

This thesis also suggests other possible investigations related to the idea of theories of change; (1) to develop an Active Movement community of practice within the wider early childhood

sector, and (2) to investigate the role of theories of change in everyday teaching and learning.

The thesis also suggests ways to create added value for the teachers and the Centre, for SPARC and for myself.

The notion of developing a theory of change in our professional development and change efforts is relevant in the context of today's teaching and learning, which is characterised by increasing complexity and change. Professional development is a means by which we can adapt to this increasing complexity and change, and knowing how to manage professional development and change in our teaching setting can contribute positively to this adaptation.

Section 5

Supplementary views in the learning journeys



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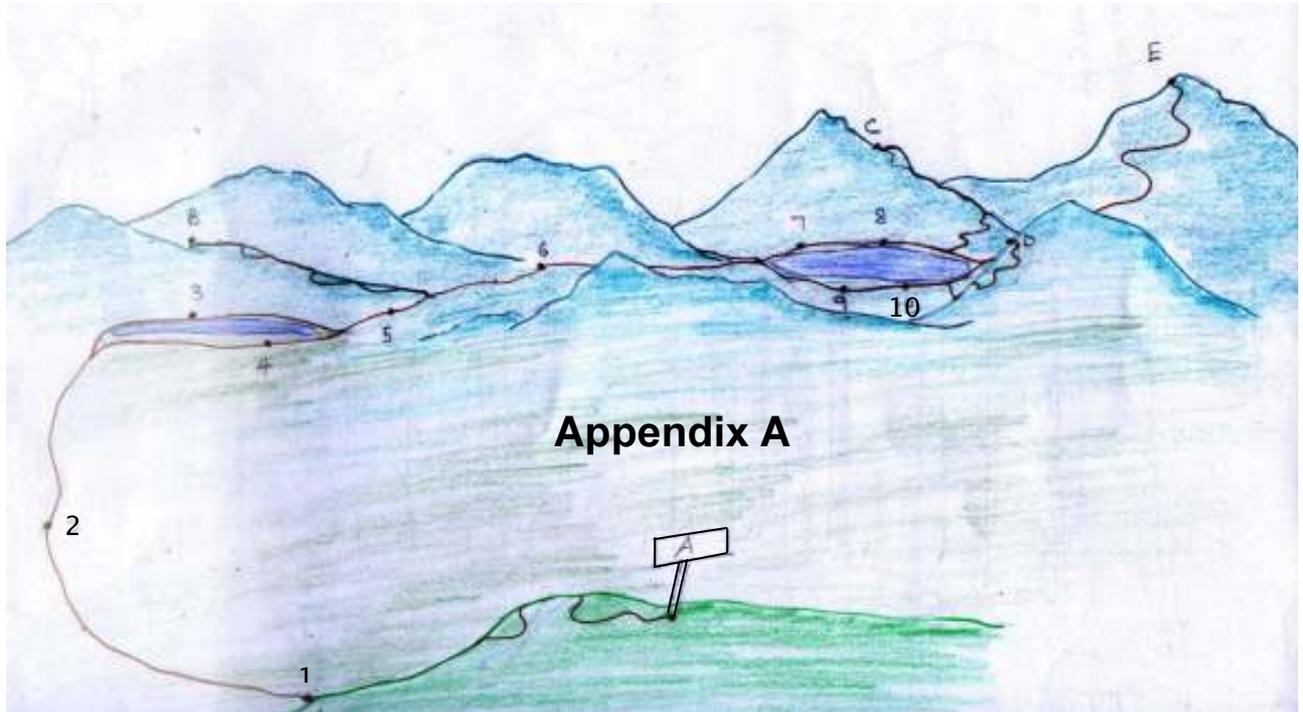
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An informal survey related to professional development in Active Movement

[1] Method

This survey was carried out on 23rd November 2004. The purpose of this survey was to find out:

- whether the teachers were interested in professional development,
- whether they believed we had Active Movement, and
- whether they felt our gym programme was a good starting point for the professional development.

I wrote the survey questions on A-3 size paper and left the paper in the staff room for teachers to fill in during their tea and lunch breaks.

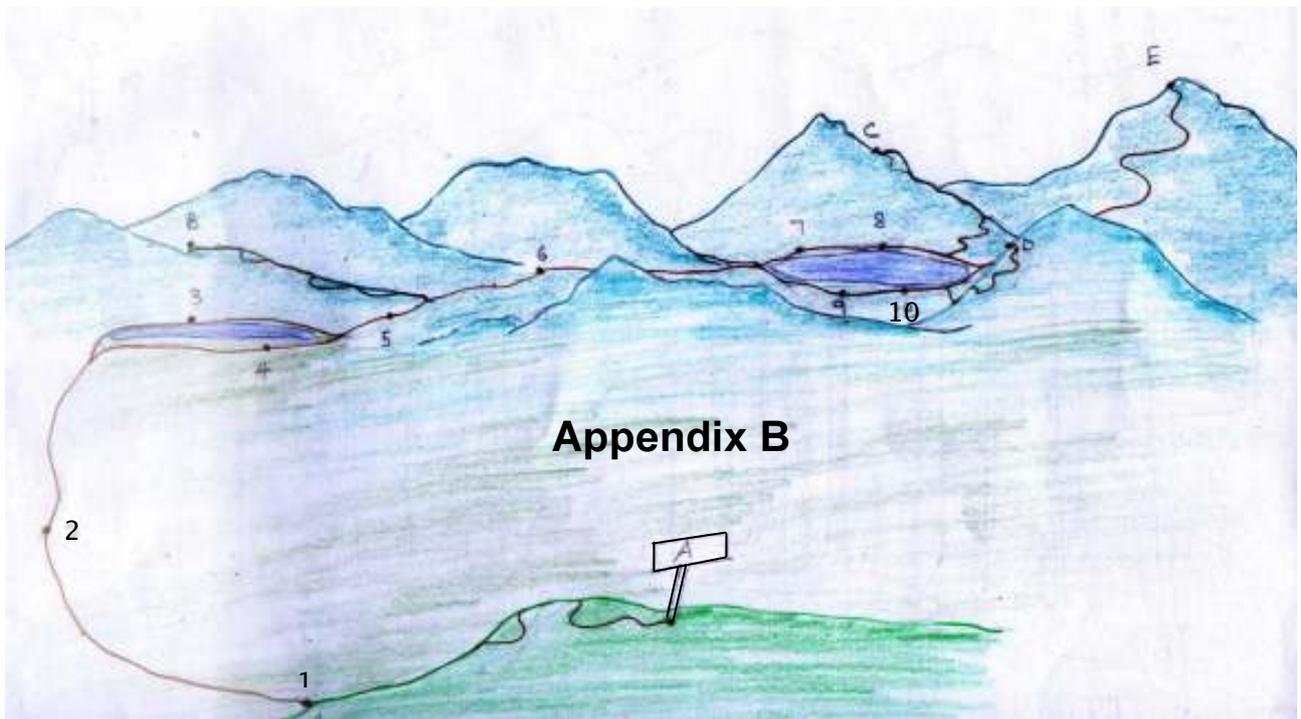
- Question 1: Are you interested in the professional development in Active Movement?
Some possible answers: Yes/No/Haven't decided/Depends on _____ (please state)
- Question 2: Do you think we have Active Movement at our centre?
Possible answers: Yes (Go to Question 3)
No (Go to Question 4)
You can add anything you wish to clarify your views.
- Question 3: How do you feel about evaluating the Active Movement that we now have, and using this evaluation as a starting point for professional development?
- Question 4: How do you feel about evaluating our perceptual-motor and gym programme and using this evaluation as a starting point for
a) creating Active Movement at the centre
b) the professional development?

[2] Results

Teacher	Question 1	Question 2	Question 3	Question 4
1	Yes	Yes	I believe this to be the most appropriate way to start any on-going professional development. We need to identify our strengths and areas of development across the programme from equipment to facilitation before starting upon a specific area of perceptual-motor development.	
2	Depends	Yes	Not sure if I can do it.	
3	Yes	Yes	I think in all instances you need to know where you have been in order to understand where you are going. Once you have gathered all that info then you can map out your destination.	
4	Yes	Yes	I agree with 1.	
5	Yes	Yes	I agree with 1. I also think that we need to look at our own Active Movement how we teach children which has to do with professional development.	

[3] Interpretation

1. *Four of the teachers were interested in the professional development while one was not sure.*
2. *All the teachers believed that we had Active Movement at the centre and agreed to evaluate our existing programme as a starting point for the professional development.*



Survey to collectively evaluate our Active Movement programme

[1] Important note

This survey was conducted on 29th and 30th November 2004, and its analysis, interpretation and reporting in December 2004. I have reproduced the texts from the report with some minor editing to improve its presentation.

[2] Background

I conducted the collective evaluation process after an initial survey to find out

- if teachers believed Active Movement was present at the preschool,
- if teachers were interested in professional development in Active Movement,
- what their feelings and thoughts were about using an evaluation as a starting point for the professional development

Their positive responses led me to create this evaluation to find out what Active Movement looked like at the preschool from the teachers' perspective. I didn't want to assume that all the teachers at the center had the same conceptions of Active Movement as I didⁱ. Furthermore, I felt that it was very difficult to create my research proposal without having an idea, however rough and flawed, of what the professional development could look like since both the professional development and the research question were very much inter-twined.

[3] Method

During staff meeting, I would put out a questionnaire based on Rudyard Kipling's six wise men for the collective evaluationⁱⁱ. I wrote each question on an A4 sheet for the teachers to individually respond anywhere in the remaining space, and I wanted the teachers to focus on Active Movement in the context of the preschool and not in a general sense. The initial six questions were:

1. What is Active Movement at FUNdamentals?
2. Who are involved in Active Movement at FUNdamentals?
3. How do we do Active Movement at FUNdamentals?
4. When do we do Active Movement at FUNdamentals?

5. Where do we see/find Active Movement at FUNdamentals?
6. Why do we have Active Movement at FUNdamental?

I did not write my responses because I did not want to influence the teachers' responses. I sat and observed the process, and during that time, I created two more questions, which were:

7. What do we like about Active Movement at FUNdamentals?
8. What do we not like about Active Movement at FUNdamentals?

When the teachers had completed the questionnaire, I explained to them that I would leave it in the staff room for them to change, add or delete anything they wanted. That night, however, I took the questionnaire home to look at the teachers' responses and discovered that I needed to clarify some of the responses that the teachers had written. I wrote a note for the teachers to that effect, and left the questionnaire in the staff room for the rest of the week.

During the week, I approached Humpty, who had been away at a course on the day we did the collective evaluation, to ask her if she would contribute her thoughts to the questionnaire. She did.

At the end of the week, I took the questionnaire home to make some sense of it.

Assumptions underlying analysis and interpretation of survey

In making sense of the teachers' responses to the collective evaluation, I made the following assumptions:

- Each teacher's responses are not viewed as complete in itself, given the way the evaluation was conducted and its limitations (see below). I assume that each teacher knows more about Active Movement than what they have written about it. One's articulated knowledge is a subset of one's knowledgeⁱⁱⁱ. For this reason, I will integrate the teachers' responses to create a collective picture of Active Movement at the preschool.
- From a complexity worldview, there is value in everything we are, see, say and do (knowledge), as well as in every way of being, knowing, seeing, saying and doing (ways of

knowing). For this reason, I will look for the value of what and how the teachers view Active Movement. At the same time, I will be critical in the sense of thinking about and highlighting possible limitations and dangers of the knowledge and ways of knowing. In other words, I will be thinking about the contexts in which I think what is expressed is valuable and the contexts in which it is not.

- I will use my knowledge of the teachers and the context of the preschool (including my perceptions of what the teachers do in relation to Active Movement) to fill in the gaps between what the teachers say and my conclusions.

[4] Method of interpretation

1. I used an inductive method of analysis, where I look through the responses to first determine if any pattern(s) ‘jump’ out from the responses.
2. organizing the response in terms of some features/characteristics that are clearly identifiable.

[5] Results

Teacher	What is AM @ F?	Who are involved in AM @ F?	How do we do AM @ F?	When do we do AM @ F?	Where do we see/find AM @ F?	Why do we have AM @ F?	What do we like about AM @ F?	What do we not like about AM @ F?
1	Time set aside to focus on using our bodies in different ways with different and varied props/equipment. Time to have fun using our bodies and developing confidence and control.	Staff, management – Moire, chn, siblings, parents (<i>Staff – facilitation + prep, observing + planning</i> <i>Management – financial, philosophy, implementation</i> <i>Chn – experimenting, playing, enjoying, attempting new things</i> <i>Siblings – chn observe their siblings using equipment in different and new ways + Julia’s boys</i> <i>Parents – feedback, ideas, progress reports ‘ my child can now do ...’</i>)	Instinct (<i>natural ways to move our bodies, not ‘learnt’ information but stuff we do without ‘actively’ thinking</i>) By observing others By listening to others By/through having fun (<i>teachers and chn do these</i>)	We have set times for chn to develop specific teacher directed skills. Based on current programme plan and long term programme planning. Free play outside – bikes, climbing frame, swings/slide set, etc	Everywhere. In everything we do from going to the toilet to playing a ball game in the gym.	It is our center vision (the FUNdamentals philosophy). When children develop confidence and control with their bodies this will help them establish more pathways in the brain that will benefit their academic skills in later life.	Experimentation (<i>everybodies</i>), developing a skill from the beginning to mastery eg. Jumping – falling to jumping with control – eg. 2 feet Watching chn develop confidence and enjoyment using their bodies.	Equipment restraints (<i>variety, amount, space, safety issues</i>) Not being able to keep up with the chn energy wise.
2	It is the way we move, exercise, enjoy being active. The Fundamentals also looks at healthy eating and encouraging children to be part of the programme.	Everyone – children including babies, staff, management	- through play - through various exercise - in the gym we focus more on defined activities	- Various times of the day - Set times in the gym - During informal times of play free play (<i>not structured</i>)	Wherever you find children. We have compulsory times of gym, we extend on their development. In free play they are extended through watching others.	For children to be involved with other children, for children who are developing skills. For children who are working alongside others. Scaffolding.	That children develop skills at the own level (pace). That what ever the age there is a skill they can learn.	Not knowing sometimes how to extend the children. Repeat, repeat, repeat sometimes can get tedious.

Teacher	What is AM @ F?	Who are involved in AM @ F?	How do we do AM @ F?	When do we do AM @ F?	Where do we see/find AM @ F?	Why do we have AM @ F?	What do we like about AM @ F?	What do we not like about AM @ F?
3	Active movement is often found throughout the preschool, ie children running, playing sports games outside. In the gym room, through different programme ie music, outdoors	Everyone who takes part or is actively involved in center	Through different aspects (<i>music, gym</i>) of our programme, dancing, rolling, jumping, outdoor sports (<i>chasing games, bikes, races, soccer</i>)		Through the whole programme, music, gym, outdoors, group times	For children. Active movement is an aid to helping them (children) learn through body awareness and control.	Seeing children enjoy active movement without being aware of the under lying concepts (EXERCISE!)	Having the younger chn in the gym, and not feeling confident about how we can incorporate the programme to suit all ages and adjust the programme to suit
4	All movement. Outside, in the gym room, sometimes at group times. At times, teacher directed.	Everyone. Staff + chn by games & teaching. Or trying different ways to use equipment.	Through setting up equipment in different ways, by playing with the chn, maybe showing them one way to use something and then watching & listening to them as they discover new ways to use equipment or their bodies	At gym time in the morning and during freeplay during the day. Outside time, chn's choice	Though out the center. At all times.	As well as being good for our bodies it is also good for our minds. Links between the 2. body control.		
5	Active movement is all the times when we (staff & children) are moving their bodies and being physical. Gym & outside play in particular.	Children and staff – staff showing and children doing.	Running around outside, kicking balls, on bikes, climbing frames/boxes etc In the gym climbing fames, group exercises	In all times of play	In everything we do except eating and sleeping. However, in those times their bodies should be processing.	Part of our (Fundamentals) philosophy as well as a personal philosophy. Children and adults should be active. Healthy in mind, body and spirit.	Helping the children to learn about physical activity which will set them up to be physical & healthy for the rest of their lives.	(Monday mornings) When I'm tired and the children are tired its hard to be motivated and get the children motivated to work and be physically active.

[6] Features of teachers' responses and issues/questions arising

1. *The teachers believe that Active Movement encompasses every aspect of what we do at FUNdamentals. However, the teachers identified some aspects of the programme that are clearly related to Active Movement.*
 - *The parts of the programme that are distinctly associated with Active Movement are free play, gym time, music, group times, setting up equipment, children's choice, although these do not preclude other aspects of the programme.*
 - *The places that are distinctly associated with Active Movement are the gym room and the outside area, although these do not preclude other areas being used for Active Movement.*
2. *All teachers agree that Active Movement involves teachers and children. Some believe that management and children's families are also involved. When asked to elaborate the nature of each party's involvement in Active Movement, there were different, though sometimes overlapping, roles for each party.*
3. *Active Movement can be structured (or teacher-directed) and unstructured (free). Within both structured and unstructured settings, some of the ways in which teachers and children learn about and learn to do Active Movement are by experimenting and trying out, learning from each other (watching, listening, showing). Teachers also mention that Active Movement can be about learning specific skills/tasks identified by the teacher as well as trying out different movements in different ways, implying that diversity and specificity are part of Active Movement.*
4. *All teachers link the purpose of Active Movement at FUNdamentals to the benefits of Active Movement for children. In other words, teachers agree that Active Movement is a means to*

an end or, to put it another way, with Active Movement, children learn through movement. Several teachers made explicit links of its purpose to the centre's philosophy and personal philosophy.

The teachers appear to answer the question on why they conduct Active Movement for the children. An important question we need to think about is: why do children engage in Active Movement? In other words, if the teachers believe that the purpose of AM is linked to its benefits, what about the children's purpose for engaging in AM? Do the children share the same beliefs about its benefit? Can we think of other possible reasons that they may have that we have not mentioned?

5. Teachers link what they like about Active Movement to

- their purpose for having it at the center,*
- their belief that Active Movement here caters to the diversity of children in terms of their developmental level,*
- the ways in which Active Movement takes place at FUNdamentals (ie. experimentation and unconscious learning).*

6. Teachers specified some of the aspects about Active Movement at FUNdamentals that they do not like as

- Related to equipment constraints*
- Related to personal constraints such as lack of motivation and energy to keep up with children*
- Lack of confidence in dealing with younger children and diversity of children*
- Lack of knowledge on extending children's learning*

- *The tedium of having to repeat the same activities*

[7] Tentative patterns in teachers' responses

I detected some patterns related to the teachers' responses, although a more detailed analysis is necessary to determine the extent to which these pattern apply within each question and across the questions:

- *The teachers tended to answer some of the questions in conjunction with one or more of the other questions. In other words, the what, who, where, why, when and how of Active Movement at FUNdamentals are inter-related and inter-connected. This suggests that the collective conception of Active Movement at FUNdamentals is a complex one.*

For examples: Teacher 3's response to Question 1 was "Active Movement is often found throughout the preschool", which suggests links between 'what' and 'where'

- *The answers to every question reflect the diversity of Active Movement at FUNdamentals and the contextual nature of that diversity. In other words, each aspect of Active Movement is context-specific.*
- *There is a coherence in our collective understandings of Active Movement, that is, we can recognize whether something at FUNdamentals is part of Active Movement or not. Certain activities such as gym time and outdoor play are distinctly part of Active Movement but other activities are not excluded. Does this suggest that Active Movement at FUNdamentals has an internally coherent structure that teachers can recognize but the boundaries within Active Movement are fuzzy, ie. sometimes we can tell clearly that something is part of Active Movement, sometimes we can't and sometimes we have to decide whether it is or not.*

[8] Limitations of the collective evaluation

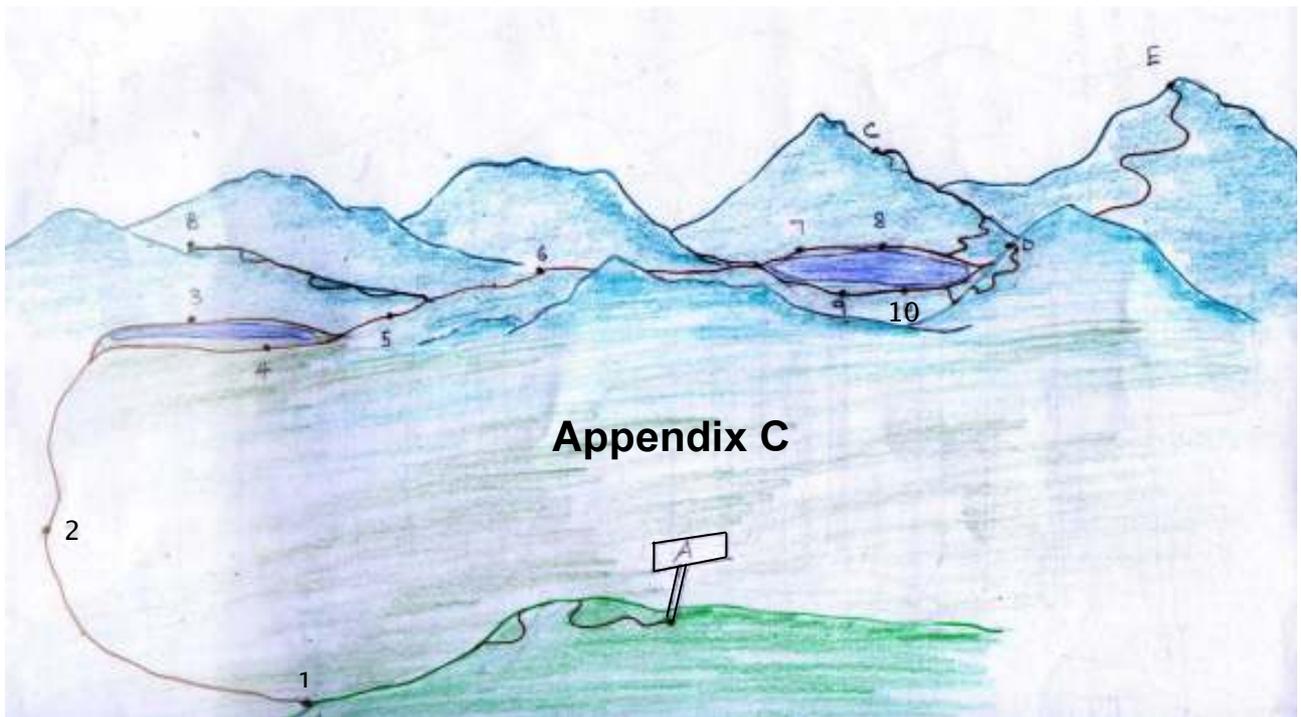
- *This is not a thorough evaluation; it is certainly not an evaluation research. There are gaps in places, but if it helps to find out starting point for the professional development, then it serves its purpose.*
- *Teachers' responses are framed by the process and factors that impacted on the process directly and indirectly. Was there time for teachers to think about questions? How did carrying out this activity at the end of the day impact on teachers' responses?*
- *To what extent are the responses individual and/or shared responses? Teachers were reading each other's responses, which likely influenced their own responses. Does it matter?*

ⁱ Later, in my readings, I discovered the term “sensitizing concept”, which is described as “a starting point in thinking about the class of data of which the social researcher has no definite idea and provides an initial guide to her research” (van den Hoonaard, 1997, in Patton, 2000, p. 278). While I did personally have definite ideas about Active Movement, I did not know whether there was a collective definite idea about Active Movement. In a sense, I was using the idea of a sensitizing concept (ie. concept of Active Movement) for this evaluation but for the purpose of creating a collective conception of Active Movement to guide the process of professional development.

Note : Blumer (1954, in Patton, 2000, p. 278) create the idea of “sensitizing concept as a guide to fieldwork with special attention to the words and meanings that are prevalent among the people being studied”

ⁱⁱ Again, to my surprise, Patton (2000, p. 278) made reference to this poem as a “fundamental and insightful sensitizing framework identifying the central elements of a good description”.

ⁱⁱⁱ This links with Nonaka and Takeuchi's (in Fullan, 2003, p. 15) idea that there is a distinction between explicit and tacit knowledge. According to them, explicit knowledge are “words and numbers that can be communicated and shared in the form of hard data” whereas tacit knowledge refer to “skills and knowledge which are below the level of awareness”. I view articulated knowledge as explicit knowledge and one's knowledge as both explicit and tacit knowledge. Davis *et al.* (2000) make a similar classification using the terms conscious and unconscious knowledge. Elaborate?



The KWLH questionnaire: Teacher's self-evaluation

[1] Introduction

KWHL stands for “what I **K**now, what I **W**ant to know, **H**ow I want to know and what I **L**earnt”, and there are four questions around these four facets of teachers’ knowledge in and about Active Movement.

Below is a copy of the KWHL questionnaire that I gave out to the six teachers at the preschool in December 2004. Five teachers filled in the questionnaire and I have included in this appendix one of the teacher’s responses to the questions (which I have typed).

[2] KWHL questionnaire

Dear _____

This is a personal evaluation questionnaire for everyone to think about what we know about Active Movement, want to know about it and how we want learn more about Active Movement. Later, when we start our professional development, we will include the part about what we have learnt.

This questionnaire is a tool that serves many functions. These are:

For us to think deeply and articulate our knowledge, practices, beliefs, hopes and dreams as well as fears and nightmares. This articulation can help us to create bridges together to connect the starting point(s) of our journeys with the destinations we seek. I hope that doing it this way will make the creation of these bridges (ie. the professional development) more meaningful to each of us personally.

To help us keep track of where we are going in our own professional development. I envisage that this professional development may take the best part of a year, depending on how far we want to go. Hopefully, this questionnaire can serve to motivate us when we see what we have learnt, keep us on track when we lose sight of where we're going or maybe help us to change our destinations, which sometimes happens when we embark on a long journey. This questionnaire is meant to be a living document that should be changed, added on, scribbled, etc. Feel free to add on more sheets if you run out of space to write.

To help me facilitate the professional development in ways that can, and hopefully will, cater to everyone's needs, hopes and dreams. I have my ideas about the ways in which we can do this professional development together. These ideas are shaped by my personal experiences as well as my shared experiences with you. I may think I know you well enough to be able to work out what each teacher could *possibly* want out of this professional development, but I can never be certain. By articulating what you want and how you want it, it will be easier for me to adapt my ideas to suit you.

To guide me in creating my proposals for my thesis as well for the SPARC's research grant. I will need to include in my proposals how I am going to collect my data and issues related to data collection. These will be influenced by what we want to achieve individually and collectively, as well as how we want to achieve them.

Take your time to think about the questions and your responses to these questions. Every thought, idea, belief, knowledge, feeling, action and every way of thinking, believing, knowing and seeing the world has some value, however uncommon and outwardly insignificant. If others do not share what we value, it doesn't matter as long we know why we value them, and how to use them wisely and in ways that benefit ourselves and others.

Go for it and have fun.

Hanin,

3rd December 2004

[2.1] What I Know about Active Movement

The purpose of this part is for us to reflect on and articulate our thoughts, ideas and feelings about Active Movement. Knowledge is viewed in the broadest possible sense and can be conscious and unconscious, visible and invisible. It is embodied in and includes our actions, reactions, thoughts, words, skills, feelings, attitudes, intentions, memories and all that is around us.

Below are some possible guiding questions. We can add in anything that we think is relevant but is not included here.

1. What do I believe about Active Movement, its importance and value for myself and for children? Why do I believe in these?
2. What are the things that I do at the center that are related to Active Movement? Why do I do these things? How do I do them? Why do I do them this way?
3. What are the things that are related to Active Movement that I *don't* do at the center? Why don't I do them?
4. What skills do I have and/or use that is directly and/or indirectly related to Active Movement? Where did I get these skills from?
5. What do I feel about Active Movement in the center? What aspects of it make me happy? Unhappy? Comfortable? Uncomfortable?
6. What are the things that I do well at the center that's related to Active Movement? What are the things I *don't* do well?
7. What do I know about teaching and learning theories (our own or theories put forward by others) related to Active Movement? What do I know about teaching and learning practices of Active Movement? How do I know these?

Teacher's responses

1. Active Movement to me is encouraging children to be physically active to the best of their ability (without pushing boundaries or expecting beyond their means)
2. Activities in the gym, outside movements with the smaller children in the nursery, e.g., encouraging rolling, standing, sitting, going across their bodies, to cross the mid line.
3. I don't always extend the children to the best of their ability as I worry about pushing them too far.
4. A basic knowledge of child development, through training, watching my own children, observing others and from deepest, darkest far reaches of my mind (my childhood). Use books related to the age range I work with.
5. I enjoy seeing the children develop, change and grow from the various set ups in the gym. It is often just little changes. I feel uncomfortable seeing the older children jumping from the top of the frame (even though I know they are safe). I feel comfortable when I see a skill achieved after many practices.
6. I don't do well is set up the gym, as I don't feel confident in this area. I don't feel I could extend the older children, so I prefer to leave it to someone else.

[2.2] What I Want to know about Active Movement

The purpose of this part is for us to think about and articulate our personal goals and objectives for the professional development – goals and objectives that are meaningful for us personally. These can include what we personally want to

- *know* – eg. Theories, teaching tips, ideas and principles, knowing about myself, my colleagues and children, skills, understanding, etc.
- *do* – eg. observe children’s movement, provide opportunities to extend their learning, conduct teacher’s choice, set up the gym room, etc.
- *feel* – eg. Feel comfortable about watching children’s movement and scaffolding them, feel comfortable about conducting teacher’s choice, etc

The above list is just a guide. We can include anything that is important to us. Please be as detailed as possible.

Teacher’s responses

- I would like to know teaching tips that will extend my knowledge and help children’s skills.
- I would like to be able to provide the opportunities for the active movement to be extended. But by observing know where to go next.
- I would like to feel more comfortable in what I am doing to extend the children in all areas of the gym room.

[2.3] How I want to learn about Active Movement

The purpose of this part is for us to reflect on and articulate the ways that we would like to learn, given that everyone is different. Do we prefer discussions, reading, lectures, trying out, observing or watching, writing, drawing, have a buddy to help us when we teach, etc? Do we prefer some combination of the different ways? Just list whatever you think suits you, even if it's not here and sounds bizarre.

Teacher's responses

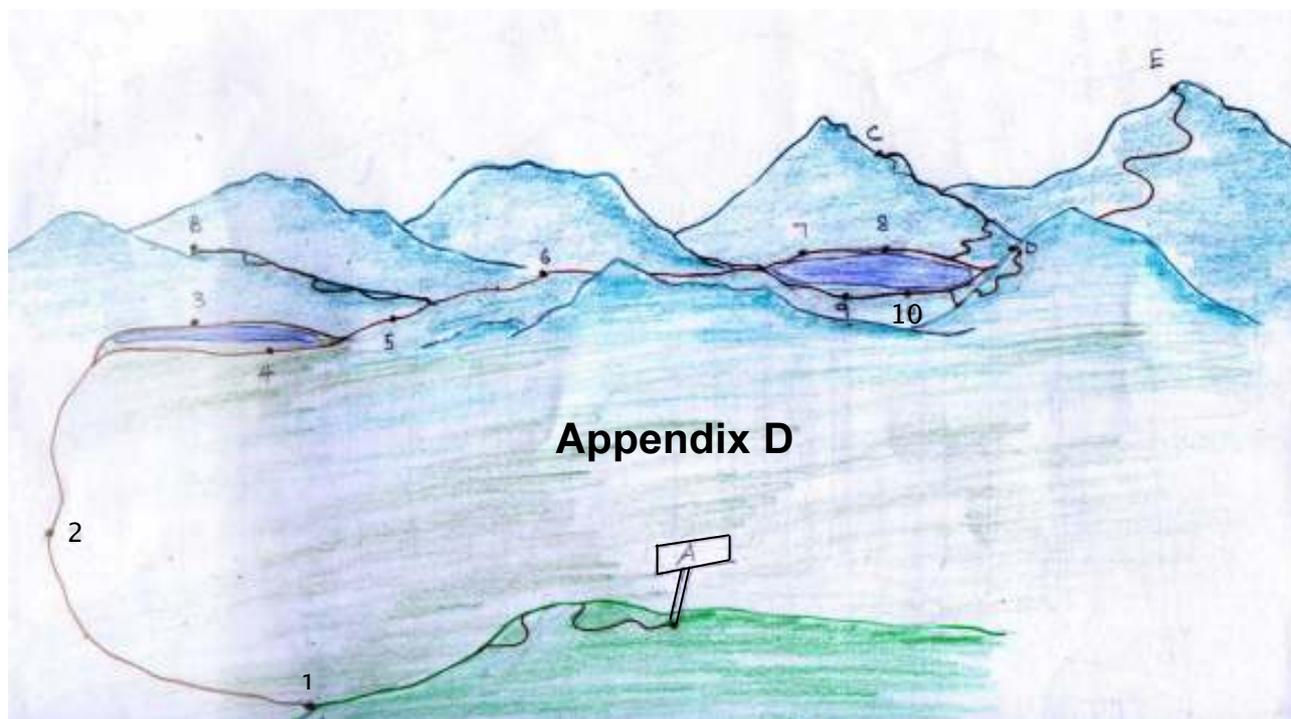
I would prefer a combination of reading, observing, discussion and having time while watching to talk about what is happening. Or maybe a video to look at step by step and have a discussion on what is happening and when to next.

[3] Reflections

While the above questionnaire was useful in helping me to plan for the professional development activities, the teachers did not get the opportunity to complete the last question at the end of the professional development, as I had originally intended. I made the decision not to pursue this course of action due to emergent events at the Centre. Initially, I had set aside a meeting in June 2006 to evaluate the professional development, during which we would share what we had learnt over the course of the learning journeys. However, due to a crisis at the Centre, I gave up the meeting so that we could focus on resolving the crisis. I went away to Singapore several days later and when I returned, other events had emerged that made it difficult to conduct a final evaluation of the professional development.

Hanin

4th March 2007



The Holding Shirt Story

HOLDING SHIRT STORY

Cast list (in alphabetical order)

<i>Teachers</i>	<i>Children</i>	<i>Parents</i>	<i>Research supervisors</i>
Frances	Alison	Katherine	Elaine
Hanin	Andy	Mike	Lindsey
Humpty	Gary		
Jemima	Sally		
Little Ted	Sophie		
Manu			
Meeka			
Titanya			

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HOLDING SHIRT STORY

Sometimes we value a story for what it is.

Sometimes we value a story for what we make of it.

Introduction

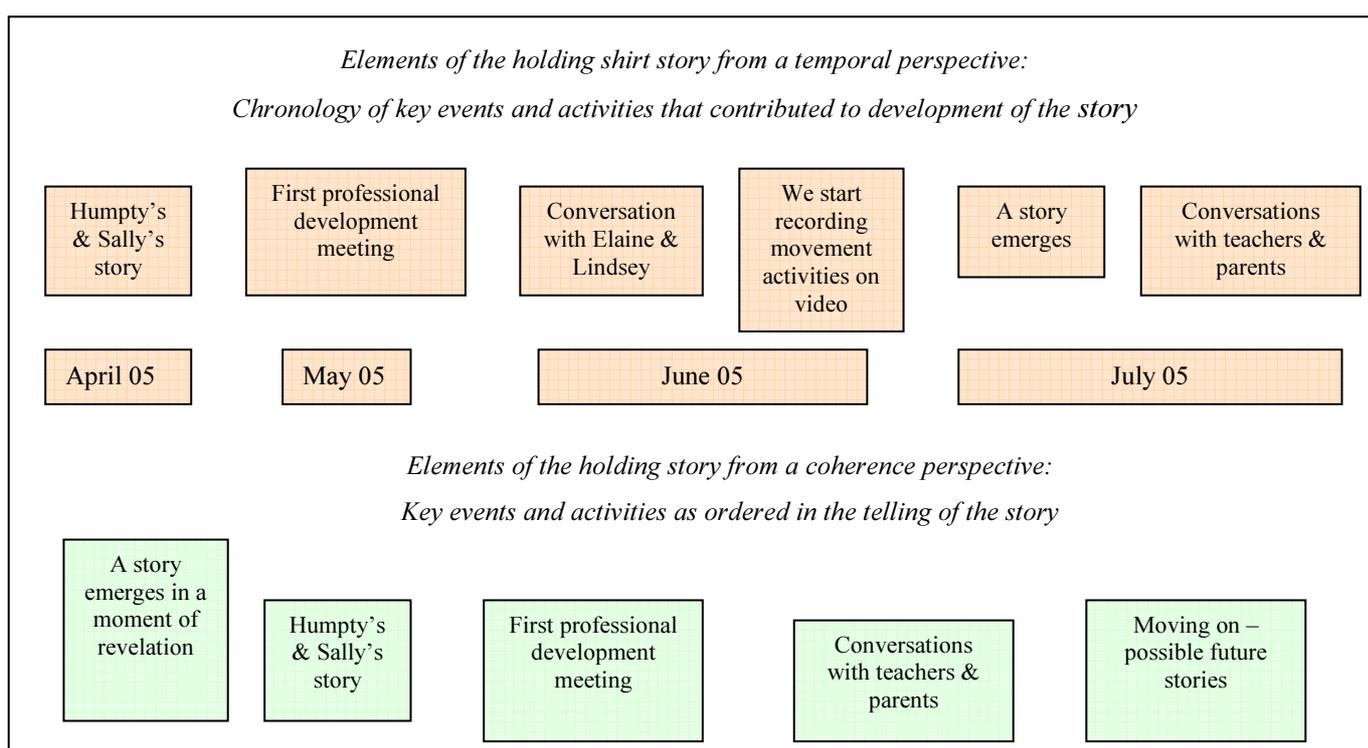
Purpose of the movement story

Holding onto a child's clothing or top is a common strategy that teachers at the centre use when we help an individual child to negotiate movement activities that involve an element of height. This story uses this teachers' know-how (Lundvall & Johnson, 1994, in OECD, 1994) as an example of how our professional development takes place as we go about our daily lives at the centre, and the impact that sharing this know-how had.

Structure of the holding shirt story

The holding shirt story is made up of vignettes of events, activities and conversations, stitched together to create a bigger story. I have deliberately not presented the holding shirt story in a chronological order but in a manner that I hope makes it more meaningful and coherent. This choice of representation is in line with my belief that we create meaning by creating order or patterns out of the events and activities in our lives, and in a world of multiple meanings, we can choose to create stories to focus on a certain aspect of the story.

Below are two different storyboards that illustrate the elements of the holding shirt story from a temporal perspective and from what I view as a perspective that focuses on coherence.



The movement story

A moment of revelation

In the early hours of the morning of 10th July 2005, I stared at my laptop, wondering how on earth I was going to make a story out of my conversations with Humpty. I felt there was a story in it but I didn't quite know what that story was. I had talked to Humpty several times about it, she had shared her story with the other teachers and even my supervisors, Elaine and Lindsey, saw a potential story. But what was the story?

Then, bang. I was hit by a flash of inspiration. Where was that video? I searched for the video on my laptop and found it. I watched it and there was Meeka, who had joined us less than three months ago, holding onto Sophie's top as the latter crawled across the ladder. Questions ran through my mind. How did Meeka know to do that? Where did she learn that from? Did she pick that up before she started working at FUNDamentals or did she learn that here? I must find out.



Going back to the beginning of the story

It was 19th April 2005. I imagine it must have been Humpty's gym time. We had probably just completed the teacher's choice activity, and it was probably children's choice time. As I sometimes do, I might have been standing in front of the shelves, scanning the room to see who was engaged in what activity. In the midst of my scanning, Humpty came up to me and said she'd just notice Sally go through 'a confidence thing' with swinging from the bar.

Humpty explained that Sally had asked for help and initially, Humpty had held onto Sally's top from the sides as the child let go of her grip on the bar. In Sally's subsequent attempt, Humpty took her hands away from Sally and stood in front of the child, saying, "I'm here, I'm here". Sally held onto the bar for as long as she could until she could not hold on any longer and dropped onto the mat. Humpty then let Sally do it herself without any help. I guess by then Sally must have realised that she could do it on her own and repeated the activity over and over again as many children often did.

At the time of this event, Sally was two months short of turning three. She had been with us since the early days of the centre. Articulate, sociable and generally confident, she started out in the nursery as a toddler and moved into the preschool when she turned two. I imagine that, like many other two-year olds, she would have had little experience hanging onto the bar as a toddler except when a teacher was

physically holding her. But, like many other two-year olds in the centre, she would have watched the older children doing so, and was eventually drawn into trying it out.

The bar is a very popular activity at the centre. It is supported by two 1.7 metre high ladders at each end, and can be set at different heights by putting the bar through set holes at different heights on the ladders. I imagine that on the day of Sally's experience, the bar would have been set at the highest level, which would have given most, if not all, children the opportunity to hang and swing from the bar without their feet touching the ground. At such a height, Sally would be hanging from the bars with her hands at 1.5 metres off the ground, which I believe is a pretty daunting height for a two-year old.

I imagine that to get up to the bar, Sally would have had to climb up one of the ladders and when she reached an appropriate height, she would have transferred her handgrip sideways from the rungs of the ladder to the bar. Then, she would have released her foothold on the ladder to let herself swing from the bar. In my experience, many children learn to do this quickly. However, I imagine that it is one thing to swing from the bar, and an entirely different matter to let go of their grip from the bar and freefall to land on the mat below. Depending on how the children land (standing, squatting, on their feet or sprawled), they could be freefalling down a height of anywhere between 0.5 metres to 1.3 metres.

This bar is set at the second highest level. These series of photos show what most children at the centre do when they try to get to the bar to swing from it. I imagine that Sally would have done something very similar to what Gary is doing here.



Several days later, when Humpty was supporting me for gym time, I noticed her approaching Sally's mum as the latter was about to say goodbye to her daughter. Sally had just successfully swung on the bar by herself and Humpty had made a gesture to me that I interpreted as "she can still do it". From the far end of the gym, I saw Humpty talking to Sally's mum and from some of the words I overheard and the way they were looking at Sally on the bar and the equipment, I guessed that Humpty was sharing with mum how Sally had learnt to build her confidence in releasing her grip from the bar and landing on the mat below.

Sharing the story during our professional development meeting

During our first professional development meeting, I invited Humpty to share her story about how she had helped Sally. We had been sharing our ideas of the concept of the professional development as ‘playing with our Active Movement knowledge system’, and, as her group’s presenter, Humpty had said,

“A lot of active movement is what we already know. It’s common sense. Like trying to teach a child to walk. To jump. Or if a child is trying to ... climb and hang on the bars. It’s like you instinctively know the next step that you need to help them at. Or not to help them at.”

This comment sparked a round of dialogue about how we, as teachers, have learnt to help the children in the way that we do- our shared knowledge, our common sense. Meeka said it was something she learnt “along the way”. Manu commented that it not something that we consciously think about and that it is “an unconscious reaction to the situation that the child’s in”. Titanya added that it was important to “know when to help them and when not to help them”, which alluded Humpty to the FUNdamental’s ten commandments for activities (Rose & Dryden, 1995, see box for the 10 commandments).

A summary of the ten commandments for activities

1. Ensure he succeeds ...
2. But give only enough help and no more.
3. Show and tell.
4. Give her time to work it out for herself.
5. Give helpful, specific encouragement rather than vague praise.
6. Help him
 - See what’s important,
 - Stop and think,
 - Take care in his work.
7. Take your lead from his interest.
8. Encourage internal motivation.
9. Encourage curiosity.
10. Avoid comparison with other children.

(Rose & Dryden, 1995, p.15)

As Humpty recounted her story, she made reference to the fact that I had seen her help Alison in a similar manner. She described the way she helped them both as common sense, adding,

“They get up onto the bar so far and they say ‘Help, help, help’. You’ve got to hold them before they’re prepared to jump down. And then next time, you’re there but you’re not holding them. You say ‘I’m not going to hold you. You can jump down now and you know you’re going to land ok.’”

Humpty’s recount of the story elicited further comments from other teachers. Titanya commented that this practice was about giving the children a sense of security. Little Ted reckoned that it was about “just being around them” that gave them “a sense of safety”. As one of the teachers who had not been part of the original team, she commented that this practice was something she had picked up from the other teachers.

Back to the moment of revelation

It was in the context of the teachers’ comments of this practice I call ‘the holding shirt strategy’ that made me wonder how, as the newest member of the teaching team, Meeka had learnt to do this. I speculated about some possibilities before approaching her with this question. In my journal, I wrote:

“Did Meeka learn that from PDMtg1, where a dialogue on holding onto a child’s shirt arose from Humpty’s sharing of her story with Sally? Of course, I have to verify this with Meeka but my hunch tells me that it is so, given that Meeka had very little experience with gym, etc. prior to FUNdamentals.”

Conversations with teachers

Several days later, when I was in the nursery to cover Frances for her lunch break, I posed my question to Meeka. She said that she’d noticed this almost immediately upon joining the team, as if this was something that was expected of her. She added that, initially, she was unsure of how far to stand back – how much to help and how much to let the child attempt it himself or herself, but through experience she had learnt to use her judgement.

On separate occasions, I also spoke to Frances and Little Ted about the holding shirt strategy. While I was in the gym room with Frances, I spoke to her about my wish to write about it. I mentioned watching the video clip and seeing Meeka holding onto a child’s shirt, and wondered where she’d picked it up. Frances said that Meeka had seen her do it many times and had probably picked it up by observing her. She then surprised me by adding that she had seen me do it and remembered thinking at that time that the holding shirt strategy was a good one because it kept the children’s hands free for climbing instead of holding onto someone else.

My personal reflections on how I learnt the ‘holding shirt strategy’

I have no firm recollections of when I first learnt this strategy. I remember using it at FUNdamentals, and I know I most certainly didn’t use it when I taught physical education at a primary school in Singapore because we didn’t have the kind of equipment like we do here. My guess is that I must have started using it with my son, Deen, when he was a preschooler. I certainly remember helping him with activities similar to what we do at FUNdamentals. As a child, Deen started walking at eight-and-a-half months and we would regularly go to the playground on the hill near our home in Singapore. I remember him climbing up to the slide to get down, trying to hang from the bar, jumping from high places (for a little person). The park was the highlight of the day for my family for almost two years until we came to New Zealand. I also know that, being the physical education teacher, I had resolved to learn about preschoolers and their motor development when Deen was born. But I have no clear memories of any instances of actually using the holding shirt strategy with him. I can, however, say that as a child, Deen was always very determined to climb and I was very afraid he would fall off and hurt himself. I guess somewhere amongst all these was when I learnt to use the holding shirt strategy, which I must have carried with me to FUNdamentals.

My conversation with Little Ted arose when she asked me how my research was going. I talked about my conversation with Frances and Meeka and how I wanted to write about how we transfer knowledge among ourselves. Little Ted mentioned that she had held Gary's shirt yesterday when he had asked for help to cross the horizontal ladder in the gym room. She remembered holding onto him lightly and was amazed that he seemed to find security in the fact that she was holding his shirt and he did not seem perturbed by the light grip she was using. I then shared my approach to holding shirts and how I considered it a judgement call whether or not to hold and how tight or light a grip to use.

Beyond the conversations - future professional development possibilities

In my attempt to make sense of the story, I went back to Humpty to clarify what she actually did with Sally. I talked about the choices I had with the story I wanted to write, whether to focus just on holding the shirt or on the different ways of helping children gain confidence. Humpty mentioned another way that she sometimes used – putting her hands by the children's sides very close to their bodies but not actually touching them. Her comment made me wonder whether it would be worthwhile recording the different ways that teachers use to help children in the gym room, and, as a group, talking about these ways and why we use the different ways in different situations. I started reviewing videos that included teachers helping children in different movement activities, and recording more such situations on video. In the process of all that recording, reviewing and organising, it dawned on me that I could link the different ways we help children to the concept of feedback in physical education (Gallahue & Donnelly, 2002; Mosston & Ashworth, 2002; Graham, Holt/Hale & Parker, 1998) and in learning in complex adaptive systems (Davis, Sumara & Luce-Kaplar, 2000; Johnson, 2001; Visser, 2001). A possible pathway for further professional development had emerged- one that could link experiential knowledge with theoretical knowledge.

Excited by this prospect, I used the video data to create some cases of teachers scaffolding children. I also made a decision to dedicate several professional development meetings to a dialogue on the different scaffolding strategies that teachers used and how they could possibly relate these strategies to the concept of feedback. I also wonder if it would be useful to make links between these strategies, the concept of feedback and the ten commandments for activities.

Humpty also mentioned, in that same conversation, that she was currently trying to help two other children, Alison and Andy, with their confidence in jumping from heights. She added that she had learnt from Andy's dad, Mike, that Andy was now jumping off from the couch at home and onto a mattress, and they were helping him by moving the mattress further and further away from the couch.

Later, I spoke to Mike about what Humpty had told me about Andy jumping off the couch at home. He added that he and Katherine, Andy's mum, had videos of their son doing this, and I asked him if he would be willing to give me a copy of this video. I explained that it might be interesting to include this as part

of the story of how what we do here and what Andy learns is transferred at home. He seemed quite happy to do so. Later that day, when Katherine came to pick Andy up, she said Mike had shared with her our earlier conversation. I asked her if she thought that Andy's jumping off from the furniture at home was a result of what he did here, and she agreed that it was.

As I reflected on these conversations, I wondered whether my conversations with Humpty, Mike and Katherine about Andy's jumping had opened up another possible line of inquiry. I wrote in my journal:

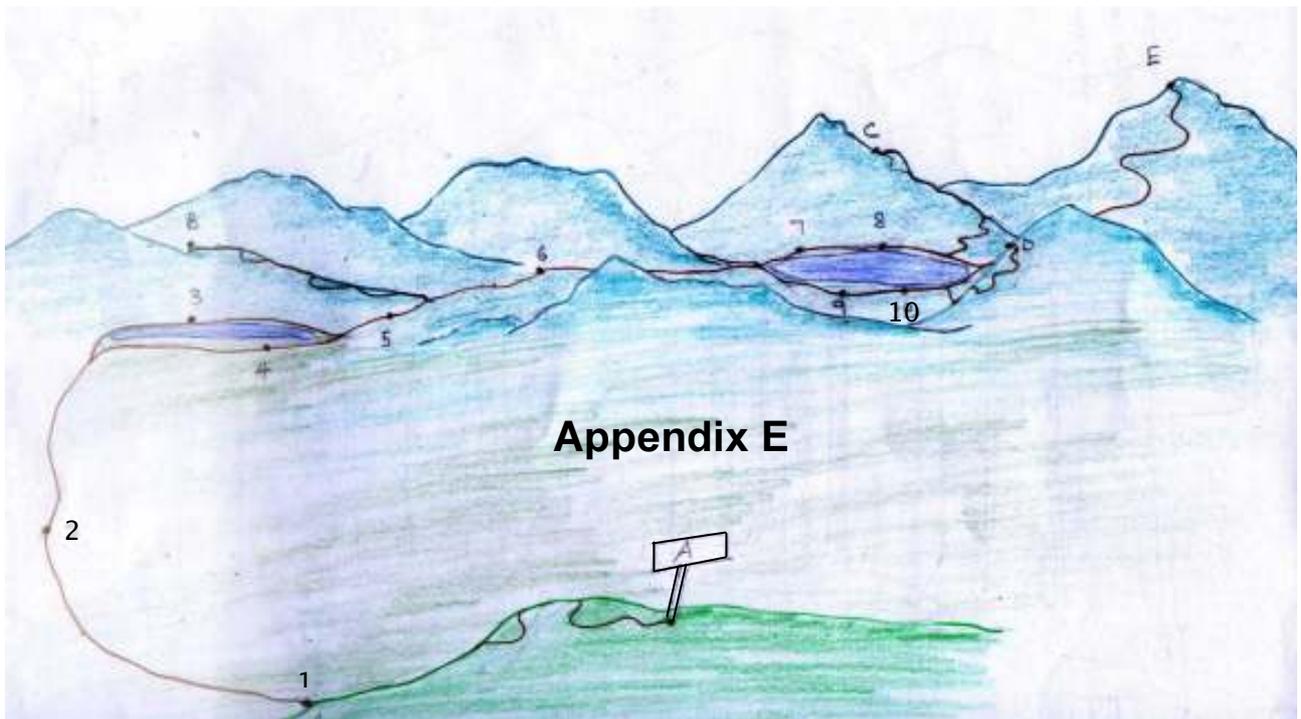
“Perhaps, we could collect the parents' stories, including videos and pictures, about what they think their children are learning from FUNdamentals that is being transferred to the home context. I know in the past, several parents have mentioned that their children are doing all sorts of things that they believe their children learnt here but we have never actually recorded any of these stories.”

This line of inquiry can help us focus on developing possible ways of incorporating the parent's voice into the learning stories that we create as assessment of and for children's learning. Such a path of inquiry would bring us in line with one of the focus of the Ministry of Education's (2004) learning story exemplars– to include the parent's voice in the learning stories we create. In the process, we can strengthen the connecting links between the child's centre life, his/her family life and the wider world (Ministry of Education, 1996).

At the time of writing, we have not yet followed any of these lines of inquiries. The first remains almost a certainty, given my belief in the importance of feedback in and for learning. However, this story will not feature in this master's thesis and I will keep it as a possible line of inquiry for a PhD thesis. The second line of inquiry remains a possible option for the professional development and I believe it will blend into the professional development when the time and conditions are right. At this point, I cannot help but wonder what further stories can emerge from either of these paths of inquiry.

Hanin Hussain

October 2005



Professional development activities survey

[1] Summary

In this survey, I listed eleven possible professional development activities on the survey form generated from a variety of sourcesⁱ. All eight teachers took part in the survey and each teacher ranked our five most preferred activities.

[2] Method

This survey was conducted on 1st July 2005 and involved all eight teachers at the centre, including myself. We filled in the survey form, as shown below (with the teachers' real names), and I scored our choices according to the table below before adding the total score for each activity. The results and interpretations (in terms of implications for the professional development) were carried out immediately after the survey.

Teacher's ranking	1	2	3	4	5
Score	5	4	3	2	1

[3] Survey form

Possible professional development activities

Some of the activities listed below are the suggestions made by the teachers during our first professional development meeting. Some are suggestions I have made as an outcome of my analysis of the sharing that took place, some have emerged as a result of Manu's and Little Ted's sharing of the perceptual-motor programme course they attended, and some as a result of conversations among teachers.

1. History of active movement at FUNdamentals - "How did our gym programme come to be the way it is?"
2. "(W)e don't know the underlying knowledge a lot of the time. So that's what we're trying to gain." (p.21) - Gaining what Arnold (1979) calls knowledge about movement?
3. Exploring the nature of risks and hazards.
4. Further integrating our monthly focus into gym time
5. Resolving issues and problems with knowledge system & exploring classifications of problems as simple and wicked problems
6. Starting a mini-library
7. Creating conditions and opportunities for teachers to observe others
8. Critiquing the statements "Movement is hindered by technology" and "Technology can inspire play"
9. Incorporating activities to inhibit reflexes into our programme
10. Incorporating station-based activities into our programme
11. Learning to incorporate technology into learning stories (eg. Embedding digital images into learning stories)

Survey questions:

1. Which of the above activities are you interested in doing for your professional development? Please choose a maximum of five activities and rank them in order of preference, 1 being the most preferred activity.

Teacher	Ranking of preferred activities
1	
2	
3	
4	
5	
6	
7	
8	

1. Can you suggest any other activity that you are interested in that is not listed above?

[4] Results

ACTIVITY	1	2	3	4	5	6	7	8	9	10	11
Teacher											
1	5	3			2			1	4		
2	5					2	4	1	3		
3	5	2				1	4		3		
4	5		3			2	4				1
5	4	3			1		2		5		
5		5		1			4		3	2	
7		5			3		2		4	1	
8	5				4		3		2		1
TOTAL	29	18	3	1	10	5	23	2	24	3	2

- According to the above results, the five preferred activities, in decreasing order of preference, are:
 1. Activity 1: History of active movement at FUNdamentals – “How did our gym programme come to be the way it is?” (29)
 2. Activity 9: Incorporating activities to inhibit reflexes into our programme (24).
 3. Activity 7: Creating conditions and opportunities for teachers to observe others (within and outside of FUNdamentals) (23).
 4. Activity 2: “(W)e don’t know the underlying knowledge a lot of the time. So that’s what we’re trying to gain.” (18)
 5. Activity 5: Resolving issues and problems with the knowledge system and exploring classifications of problems as simple and wicked problems (10)

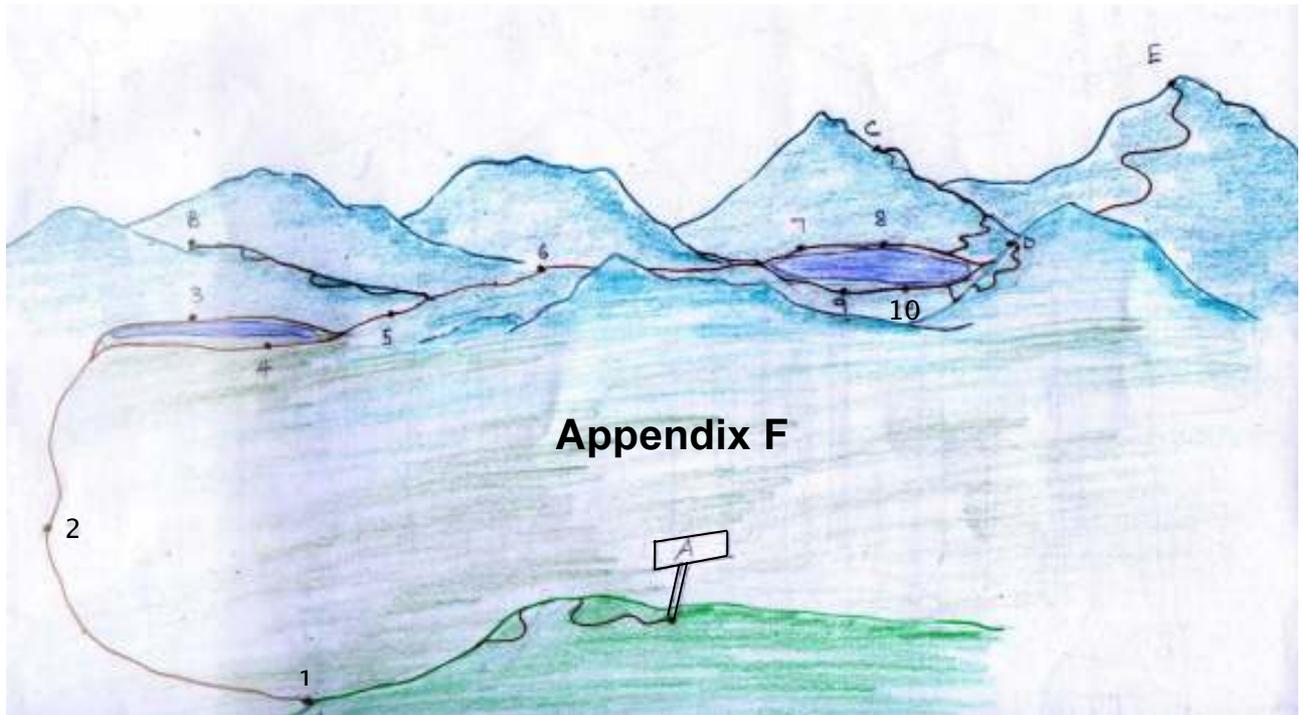
- Activities 1, 2, 7 and 9 were chosen by at least five teachers, although the ranking given by the teachers varied for each activity.
- All activities have at least one teacher who chose it as one of her five choices.

[5] Implications

What are the implications of and issues arising from the above results, in view of the fact that SPARC has approved the research grant?

- *Consider various approaches to professional development – teachers choose, all do the same, teachers choose some and all do some, etc. What are some possible factors that influence each of these approaches?*
- *Consider ways of organizing non-contact for teachers to engage in professional development. Which of these activities are suitable for teachers to pursue during non-contact? How can we allocate different teachers for different weeks, etc?*
- *Consider professional development meetings – which activities can be conducted during these meeting?*
- *Which activities may require both non-contact and meetings?*

¹ Sources are indicated in the survey form.



Analysis of meeting when teachers first articulated our shared values

[1] Introduction

Although my interpretation of teachers' shared values emerged from several sources (that is, our staff meeting on 9th May 2005, our first professional development meeting on 23rd May 2005 and our second professional development meeting on 4th July 2005), I first sensed it during our second professional development meeting.

The part of the first professional development meeting that were relevant to this emergent interpretation relates to the sharing of what the notion of "Playing with our Active Movement knowledge system" meant to us. Below is a summary of my analysis of the relevant parts of our meeting that contributed to the interpretation.

[2] Summary of dialogue and sharing

I have organized the relevant parts of our meeting into the following themes:

Theme 1: Creating our understandings of the concept, which included articulating our active movement knowledge system as well as current issues and problems in knowledge system

Theme 2: Possible professional development activities

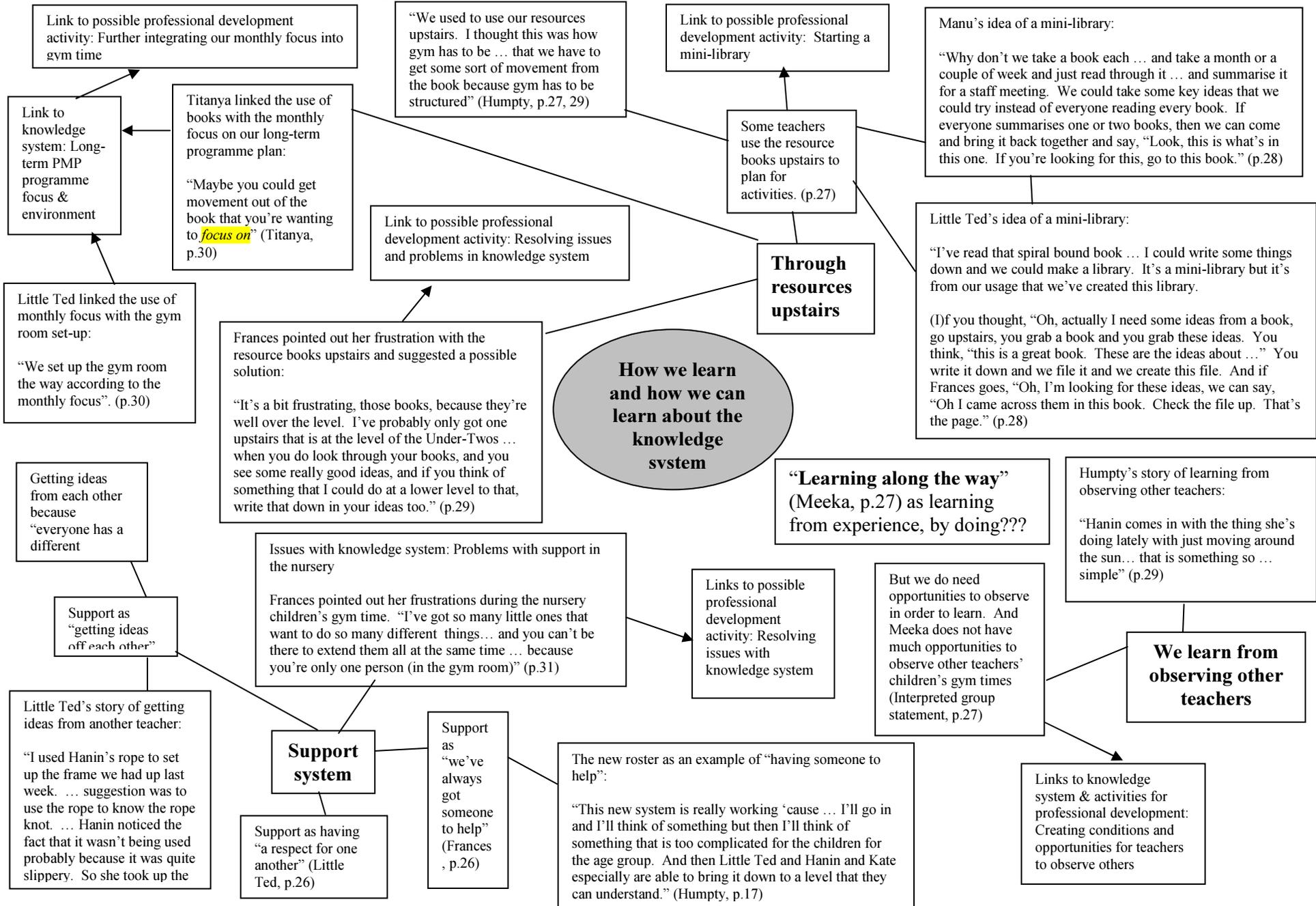
For theme 1, I organised the conversations into four sub-themes:

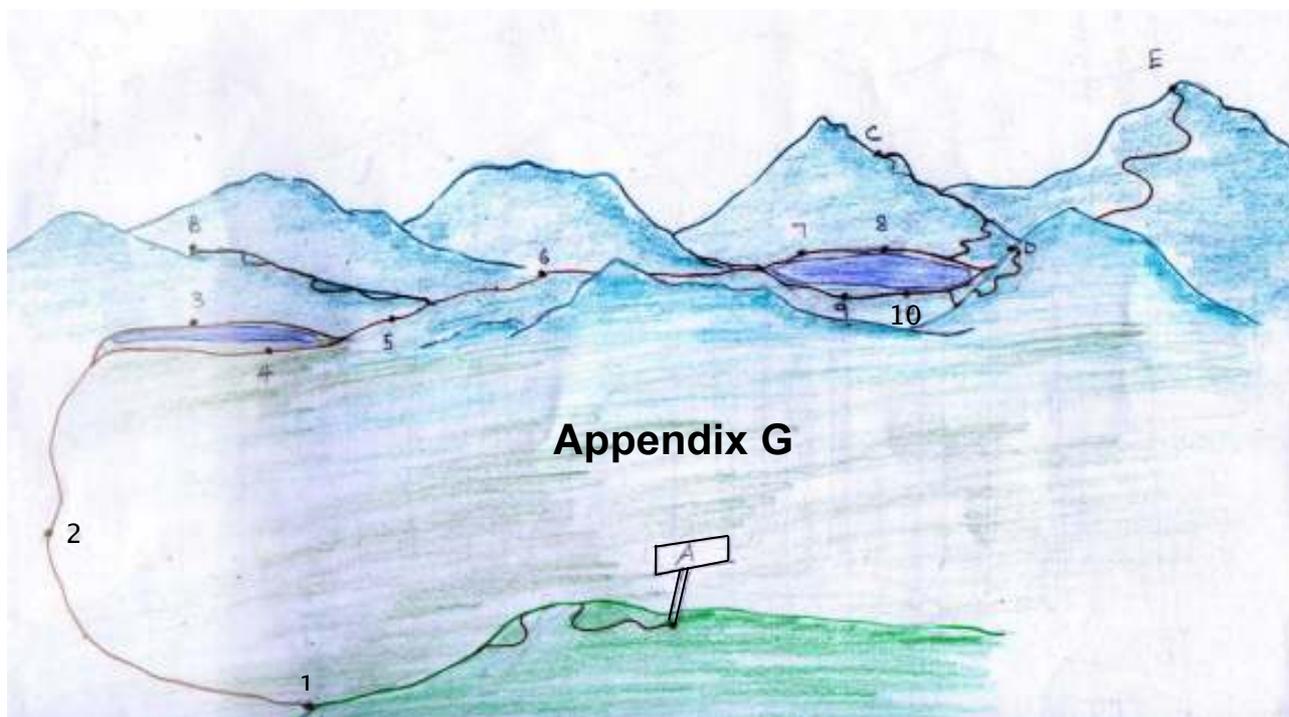
- 1. Our knowledge system has developed at FUNdamentals collectively and individually*
- 2. How we learn and how we can learn about the knowledge system*
- 3. Our Active Movement knowledge system embodies the brain and the "things we know ... about Active Movement"*
- 4. Playing as freedom to be a hippy*

Under the sub-theme on **How we learn and how we can learn about the knowledge system**, I identified four ways in which teachers learnt or wanted to learn. These were:

1. *We learn by observing other people.*
2. *We learn by supporting each other.*
3. *We learn by using the resources upstairs.*
4. *We learn along the way.*

The mind map on p. 261 shows the teachers' conversations on how we learnt or wanted to learn.





Collecting and analysing data to evaluate the new gym roster

[1] Introduction

In this Appendix, I provide descriptions of the methods we used to collect and analyse data in order to evaluate the new roster. I also present an analysis of the second professional development meeting when we collectively analysed and shared the data we collected.

[2] Description of method for collecting data to evaluate the new roster

This description was first articulated in the document “preschool teachers’ discussing and sharing of ppda1”. I reproduce the description below:

“We created an A3-sized form (see sample on p. 264) to help us monitor and evaluate the implementation of the new roster. We decided on the following actions for the monitoring and evaluation:

- The lead teacher will record in each of the first two blank columns what activity was conducted for teachers’ choice, how the activity went, and any incidents that happen in the gym room that can point to the value and limitations of having the support person.
- The support teacher will record on the rightmost column any anecdotes about what she did in the gym room.
- Both the lead and support teachers will fill in the number of children in the little boxes in each of the first two blank columns.
- The teachers will record this data for two months, checking after every month, during staff meeting, to see if any clear patterns have emerged.

I prepared the form for us to use, and later added some A3 sheets of paper for teachers to record any details that cannot fit into the boxes provided in the form.” (preschool teachers’ discussing and sharing of ppda1)

PRESCHOOL PROFESSIONAL DEVELOPMENT

MONITORING & EVALUATING OUR GYM ROSTER

Day/Date	Leading teacher's evaluation of gym time		Support teachers' observations Other ideas & anecdotes
	Younger children	Older children	
MON I did ... I think ... I want ...	<input type="checkbox"/>	<input type="checkbox"/>	
TUE	<input type="checkbox"/>	<input type="checkbox"/>	
WED	<input type="checkbox"/>	<input type="checkbox"/>	
THU	<input type="checkbox"/>	<input type="checkbox"/>	
FRI	<input type="checkbox"/>	<input type="checkbox"/>	

[3] Data analysis

I reproduce the plan for data analysis, the findings of the teachers' data analysis and my interpretations of the analysis. The plan was first articulated in the document "activity 1 for preschool teachers" which was created on 3rd July 2005. The analysis and interpretations were first articulated in the document "ppda1 data display and analysis", created on 21st July 2005, with the interpretations embedded in the analysis. I have modified the presentation of these documents in this appendix to make them easier to understand. However, there are no changes to the contents of the documents, which reflect my analysis and interpretations at the point in time. This analysis and interpretations, in turn, affected subsequent actions and decisions related to the professional development and thesis.

[3.1] Plan for data analysis

Preschool professional development activity 1 Monitoring and evaluating the new gym roster

Our discussions and dialogue during this meeting will focus on the following questions:

- What do we do with the data we have collected? (framing our analysis)
- What does our data tell us? (interpretations and findings)
- How do we present our findings and the data that supports these findings?

Group 1 will focus on these questions:

1. Are there any trends and patterns in the activities conducted during teacher's choice? What do these trends and patterns tell us? Are these trends and patterns expected? Unexpected?
2. Are there surprising and/or interesting events recorded? What are they and what makes them surprising and/or interesting?

Questions to evaluate the activity:

1. What were the issues and problems we faced during this activity, including planning for the activity, collecting the data, analyzing and interpreting the data, presenting the data?
2. What did we learn from the activity?

Group 2 will focus on these questions:

1. What are the *benefits* of having a support teacher in the gym room?
2. What are the *limitations* of having a support teacher in the gym room?

Questions to evaluate the activity:

1. What were the issues and problems we faced during this activity, including planning for the activity, collecting the data, analyzing and interpreting the data, presenting the data?
2. What did we learn from the activity?

Important notes:

- The findings we present must be supported by the data we have collected.
- Our findings will go on the professional development board.
- We can clarify with the teachers concerned about what they have written.
- Do not include children's names in your findings.

[3.2] Teachers' findings from data analysis

Notes for data display and analysis:

1. Data for this display come from the posters the teachers created as part of their analysis and presentation of the evaluation of the gym roster (DD/ as well as from the transcripts of the discussion that took place when the teachers shared their findings to the group as a whole.
2. Data is organised according to the questions that the groups answered, so that the questions play a big role in the findings the teachers generated.
3. One of the purposes of creating this data display and analysis is to find data that supports or refutes the idea that the teachers may be evaluating the gym roster using evidence or judgements or a combination?

Group 1's findings on focus questions

1. Are there any trends and patterns in the activities conducted during teacher's choice? What do these trends and patterns tell us? Are these trends and patterns expected? Unexpected?

- Group activities for all children.
- Most games are repeated and are teacher-generated
- 'not your more traditional games' (PDMtg2P2L5-7). What does she mean by traditional?
- Sometimes there are links to our current letter focus
- Props are often used: books, CDs, bubbles, furniture, etc.
 - Eggs given- 'We use ... support materials like for musical chairs and bubble dance' (PDMtg2P2L7-7.5)

Titanya's suggestion to refine roster:

Person leading following day's gym session is to be support person for the day before/current day. (Table drawn to illustrate idea.)

Responses to suggestion:

- Humpty likes the idea (PDMtg2L10.5)
- Manu thought that was what we were doing until she looked at the roster (PDMtg2P2L13-L13.5)
- Jemima highlighted problem of 'how it fitted with the roster for group time and all that stuff' (PDMtg2P2L14-L15)

2. Are there surprising and/or interesting events recorded? What are they and what makes them surprising and/or interesting?

- What was surprising was that the records of the number of children who attended the sessions showed "a growth in number of children attending this year alone".
 - '...compared to this time last year, twelve was like you max but now it seems to average twenty' (PDMtg2p2L17-L18). Does this count as evidence or is this a judgement based on glancing at the numbers?
- No concrete patterns to activity facilitation/choice of activities
 - 'we just talked about whether there were any concrete patterns. There didn't tend to be. Sometimes it was quite sporadic, so I might do an activity and then three people might follow it and then it might jump around and then other weeks it's quite different again.' (PDMtg2P2L21-L23.5)
 - No specific examples given. Can the data from the table support that assertion?

Issues and implications from this way of facilitating:

- Children don't get bored
- Continuity
- No limitations on creativity for teachers
- Predictability
- Build on skills learnt- challenge and extend

Jemima talks about the tensions between

- being 'sporadic' so 'children don't get bored' (PDMtg2L24.5-25.5) and providing continuity and predictability (PDtg2P3L0)

- eg. boring for children who attend five days a week to experience the same lessons but may need repetition for other children 'like it being predictable' and for others who can build on their skills (PDMtg2P3L11-L16) Is this data from experience more than from the table?
- limiting teachers' creativity to change or build on a lesson
- A different way of doing the roster if we don't give teachers the opportunity to vary or change another teacher's lessons- 'probably you could just say, "Sorry, can't do it; Jemima, can you do it again?' (PDMtg2P4L1-1.5), which may give rise to allocating teachers to do gym time on a week by week basis (PDMtg2P4L2-3.5).

Group 1's responses to questions for evaluating the activity

1. What were the issues and problems we faced during this activity, including planning for the activity, collecting the data, analyzing and interpreting the data, presenting the data?

Issues:

Problems:

- time
- remembering to fill out forms then and there 'because if you don't you kind of forget really quickly what you did' (PDMtg2P4L16.5-18)
- Eg. writing the number of children we had (PDMtg2L19)

2. What did we learn from the activity?

What was good about it:

- A history: keeping track of what we have done.
- Eg. 'Titanya, when she's been away for a bit, can actually go back to it without actually asking anybody and get an idea of what's been happening'
- Jemima generalises on this idea- 'So we should be able to do that if no one's actually available to *tell us (I think that's what she means)*. Well, I've been away a bit and actually look back at that thing and get a gist of what's going on if I'm on gym today. It's quite handy.' (PDMtg2P4L12.5-16)
- A memory bank
- A reflection
- Accountability
- Outlet to discuss problems in a 'safe' environment, eg. 'with children coming in late and stuff' (PDMtg2P4L11)

Group 2's findings on focus questions

1. What are the *benefits* of having a support teacher in the gym room?

- To settle children
 - Egs. given- settle children who are 'coming in late, those that might not be very happy when they're coming to gym time and also just collecting all the children who are scattered all over the gym room so that the gym person can get ready while that other person is rounding them up'(PDMtg2P8L10.5-L13)
- Support teacher is able to observe children more closely, ie. observe one child while teacher gives lesson
 - Eg. given- 'if I'm taking the gym time, I've got to focus on all fifteen and you know and keep it going whereas say, for example, Humpty might be able to pick up on the fact that Betty's really quite focusing on ... doing ... hammering or something like that, whatever she's suppose to do for gym time' (PDMtg2P8L13.5-17.5). Did this example come from the recorded data, from experience or as a local analogy?
- Able to deal with parent inquiries
 - Eg. given-'taking cheques, eftpos, bookings' (PDMtg2P8L20-21.5). I remember Little Ted talking to a parent while I was doing gym time. Little Ted calls this 'a benefit but also a bit of a hindrance' PDMtg2P8L19-19.5); a hindrance because it takes the support teacher away from the gym room (critical awareness of issues???)
- Supporting disruptive children (PDMtg2P8L23)
- Able to role model activity
 - Examples given- 'you set up activity ... dancing around the gym room... you got that person to facilitate the children on what exactly's supposed to be happening' (PDMtg2P8L23.5-25.5)

- Having one person to describe the activity and another to demonstrate means that the younger children will be sitting down watching the demonstration; they have a tendency to follow the speaker's actions and will stand up if the same teacher is doing both talking and demonstrating (PDMtg2P9L9-L14)
- Two teachers role modelling an activity involving two children at the same time (e.g., Titanya's moon race) (PDMtg2P9L18-L25)
- Able to pick up the lead teacher's slack if the she is not feeling well (PDMtg2P9L0-L9)
- Able to help lead teacher to write down observations and children's responses (PDMtg2P9L14-L18); Jemima- 'I just couldn't have done that if I was by myself' so 'I wouldn't even integrate that into the activity so I wouldn't have even bothered'; critical awareness of teaching constraints
- Able to go to break- even lead teacher can have a break during children's choice because the support teacher can conduct ka kite to finish off gym time for the group (PDMtg2P9L25-P10L2)
- Support person is able to take children to toilet and help out with children having accidents (PDMtg2P10L2-L4)
- Being able to get ideas and bounce ideas off each other. (PDMtg2P10L4-L6.5)

2. What are the *limitations* of having a support teacher in the gym room?

- If the support teacher is a reliever, and not a permanent staff, then the benefits discussed above may not be realised because the relieving teachers (PDMtg2P10L6-L)
 - may not know how to 'cope with those children who are being disruptive'
 - can't pick up on the slack for the teachers because they haven't been acculturated into the team cultureTeachers recognised this as an issue to be resolved and tried to come up with solutions to the problem. Suggested solutions included:
 - Manu's suggestion: have permanent staff in the gym room and relievers for group times because 'it's a lot easier to deal with issues that arise at group time than it is at gym time when you got children running around' (PDMtg2P10L17-21)
 - Jemima prefers it the other way because she finds it easier to direct the older children using her voice and whereas that strategy doesn't always work with the younger children; she gives an example of me having to pull the gym boxes apart to get a child out from the boxes to go for "ka kite" during the younger children's gym time. (PDMtg2P10L23-P11L8)
 - Writing out expectations for relievers as part of the induction folder for gym and group time; have we done this? Who did it? what did she put it it?

Issue arising from above discussion:

While the teachers were talking about expectations for relievers, they also mentioned expectations for parents who sometimes unintentionally disrupt the programme. Frances then made a joke pertaining to the problem she faces of the preschool children standing on and leaning on the gate separating the gym room to look at the nursery children when the latter are having their gym time. The teachers recognised this as an issue because while the teachers want to encourage the children to watch the younger ones, standing on the gate would eventually break it. Jemima came up with the idea of having teacher helpers in the younger children's gym time. The teachers then spent some time talking about how this idea could be implemented. (PDMtg2P12L22-P14L26)

I see this idea as one way of providing support for the nursery teachers while they are doing gym time, since the roster does not apply to them. I see it as a win-win situation for the teachers and the children.

Group 2's responses to questions for evaluating the activity

1. What were the issues and problems we faced during this activity, including planning for the activity, collecting the data, analyzing and interpreting the data, presenting the data?
2. What did we learn from the activity?

Group 2 presented their responses in the form of a table which highlighted each issues and problems, the weight of the issues and problems and what we learnt from it.

Issues & problems	Filling in details		Counting children		Students' background knowledge		CDs not available when activity planned		Time restraint
10									
9									
8									
7									
6									
5									
4									
3									
2									
1									
What we did learn	Being more reflective		Planning more appropriately for number of children		Talking to students about activity and outcomes		Always have a back-up plan		Need teacher to be fresh in mind

- Acknowledged that we sometimes forgot to fill in the details and that writing down these details helped us to be more reflective. 'We are thinking about what we're doing during gym time a lot more. We're also targeting on exactly what we're focusing on.' (PDMtg2P15L5.5-L6.5)
- Quite often forgot to count the number of children during the activity and did this only during morning tea. But counting the children made us aware of the number of children (ie. average? Range?) and helped us to plan appropriately for that number of children. (PDMtg2P15L6.5-L14) Local analogy given.
- Little Ted talked about how a student teacher 'was constantly interrupting during gym time' during Humpty's gym time and was giving ideas when Julia's intention during that session was for the children to suggest ideas themselves. Little Ted said that it would be good to talk to any student teachers about what the lesson was focusing on and how they could contribute to the lessons. (PDMtg2P15L14-24.5)
- The activity also helped them to record and realise that teachers' plans sometimes did not work out because of unavailability of resources, eg. CD player used by someone else, running out of bubbles. That suggested that teachers should always have a backup plan for their lessons. (PDMtg2P15L24.5-P16L5)
- Acknowledged how much time recording and reflecting on the activities takes, and the teacher has to be in a 'fresh' frame of mind to be able to do so. (PDMtg2P16L5-L9)

[3.3] Interpretation: Insight on 18th November 2005

Reading the transcript of the second meeting (p. 5-8), it seems to me that it might be worth highlighting questions related to tensions in our knowledge system. For example, I detected tensions related to programme planning and evaluation in terms of the use of the planning and evaluation sheets:

- Tension between being brief and being detailed in our writing of the planning and evaluation sheets (PDMtg2P4L21-P4L23.5)
- Tensions in purpose of an evaluation- between fulfilling an obligation and using it as a living document (PDMtg2P5L25.5-P7L25)

Is this tension related to learning by observing each other and learning by reading about something? Does it suggest that teachers prefer to learn by observing (and talking???) as opposed to reading? If so, why is that the

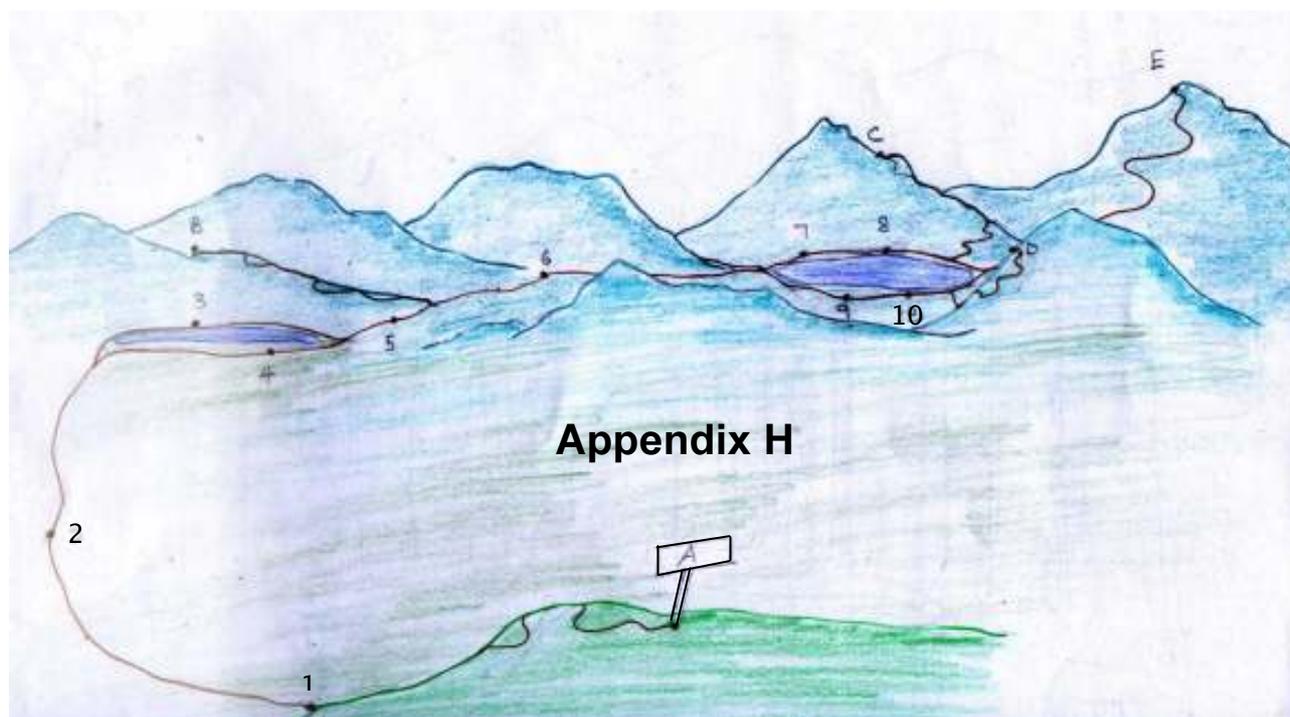
case? What does this imply about our perceptions of the purpose of the planning and evaluation sheets and how we are using them? Are teachers aware of these issues?

I also detect some examples of problem setting and solving in relation to our knowledge system related to programme planning and evaluation:

- Manu's problem (PDMtg2P5L12-L25.5)

Here are some interesting questions about tensions in our knowledge system that may be worth asking:

- What are the tensions that exist in our knowledge system?
- Why do we have those tensions?
- Do we realise those tensions are there? If so, are those tensions articulated? Can I view this professional development activity as a means of articulating those tensions and not keep them at a tacit level?
- Which are the ones we can live with and those that we want and/or should change? How do we decide which ones to live with and which ones to change? Is changing the gym roster an example of one that we wanted to change?
- How can I relate tensions to the games we play? What literature exists in game theory? Can I take the view that tensions in games make them inherently political because we have to decide what and how we do with those tensions?



Change lessons: playing with the gym roster

CHANGE LESSONS: PLAYING WITH THE GYM ROSTER

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Cast list
(in alphabetical order)

Teachers

Angela

Bronwyn

Frances

Hanin

Humpty

Jemima

Little Ted

Manu

Meeka

Titanya

Children

Betty

Jenny

'Tinkering is embedded in the process of professional knowledge creation, since this is the means of testing and modifying an initial 'good idea' into something worth subjecting to more systematic validation. When a group of teachers tinker with ideas emerging from knowledge creation, they are checking the extent to which the emerging practice is both transferable and transposable. In tinkering, knowledge creation and knowledge utilisation are not separate entities that occur in sequence, but an interactive process in which knowledge utilisation becomes part of the creative activity'
(Hargreaves, 2000, p.231)

Introduction

Purpose of movement story

Gym time is an integral part of Active Movement at FUNdamentals Preschool. It is the time of the day when children spend time in the gym room engaging in a mix of teacher-directed and child-directed activities. The gym roster is the roster that states which teacher(s) is(are) responsible for conducting gym time for the preschool children for a particular day of the week.

In April 2005, the teachers changed the preschool gym roster to give us more opportunities to observe and learn from each other. This movement story is about that change and some of the lessons we learnt from it. It addresses the following questions:

- How did the change in the roster come about?
- How did the teachers evaluate the new roster and what value did the teachers give to it?
- What other changes emerged from the change in the gym roster?
- What do I think are other changes we can effect beyond the above changes and how can we effect these?

I will focus the above questions on two aspects of our play with our gym roster. Firstly, I will describe the events, actions and decisions that led to the development of this new roster and another practice that emerged from our play with the roster, both of which I view as *movements in our shared practice*. Secondly, I will share some of the teachers' insights, including my own, that arose from articulating and/or sharing the value of these new practices. I view this second outcome as *movements in our knowledge about our practices* or, using the language in Nonaka and Takeuchi's (1995) model of organisational knowledge creation, a conversion of tacit knowledge to explicit knowledge at individual and/or group levels.

Why the title 'Playing with our gym roster'?

I have chosen the title 'Playing with our gym roster' to align this story with the overall concept of the professional development as 'Playing with our Active Movement knowledge system'. The meaning of play that I have in mind for this story is consistent with the notions of tinkering and systematic validation expressed by Hargreaves (2000) above.

The activities that constitute playing with the gym roster include our attempts to initiate, implement, evaluate and collectively talk about the new roster. Our attempts to play with the new gym roster resulted in the following outcomes:

- Developing a new practice (that is, the new roster)
- Articulating and sharing the value of this new practice
- Articulating and sharing the limitations of this new practice
- Articulating and sharing the nature of teaching and learning at the centre
- Articulating and sharing the value and limitations of the systematic evaluation process

This movement story focuses on the first two outcomes. It also describes another practice that emerged from the above outcomes, that is, the teacher-helper scheme for the nursery teachers.

Source data: to be included in final draft of thesis

Why have I chosen to tell this story and in this way? Firstly, I believe that there are lessons we can learn from articulating change processes that are collaborative in nature and from highlighting some of the intended and unintended outcomes that arise from the change processes. These lessons can help us in the future when we decide to introduce other changes to our knowledge system. Secondly, I view this story to be part of the process of capturing, articulating and sharing the dynamic knowing that gives an organisation its competitive advantage in the business world (Wenger, 1998). Thirdly, in a community of practice, I believe there is historical value in making explicit both the processes and products of the changes we make to the way we teach at the centre (Wenger et al, 2002). In a community where membership is fluid (that is, families and teachers can join and leave the community at any time), a knowledge of one's history can help us ease the process of initiating new members into our community, and understand our own culture and the development of that culture.

Structure of movement story

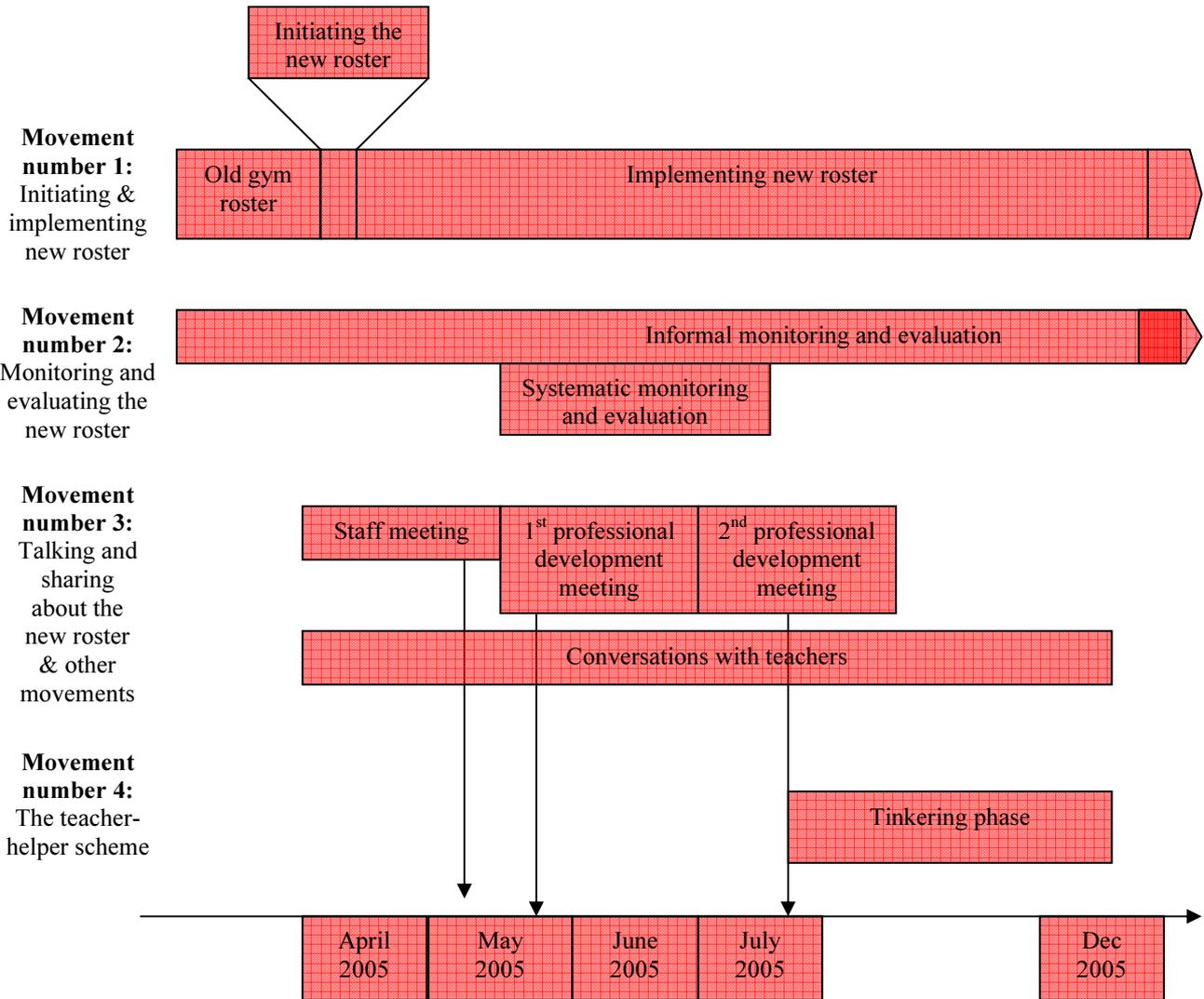
As with *The holding shirt story*, I will represent the structure of this movement story using two different storyboards. Both these representations show a summary of the elements that make up this movement story but are organised differently. The first representation is a storyboard that summarises the chronology of the events and activities that have influenced the development of this story. The second represents a non-linear storyboard that is intended to help the reader make sense of the story; it is a structure that focuses on coherence. It expresses the relationships among the different elements of the story, as I have perceived them; non-linear relationships that are more difficult to express in the inherently linear structure of the main text. In a way, the non-linear storyboard complements the linear structure of the main text.

I have also decided to include additional features in this movement story, features that were not present in *The holding shirt story*. In addition to the main text, I have included a column on the right for peripheral stories, additional information, comments, reflections, theoretical points and photos. I have decided to do this in view of my judgement that this story is far more complex than *The holding shirt story*; there are far more events and ideas that interweave and are embedded within each other. The use of text in the right column is one of my strategies to help create a more holistic understanding of this story.

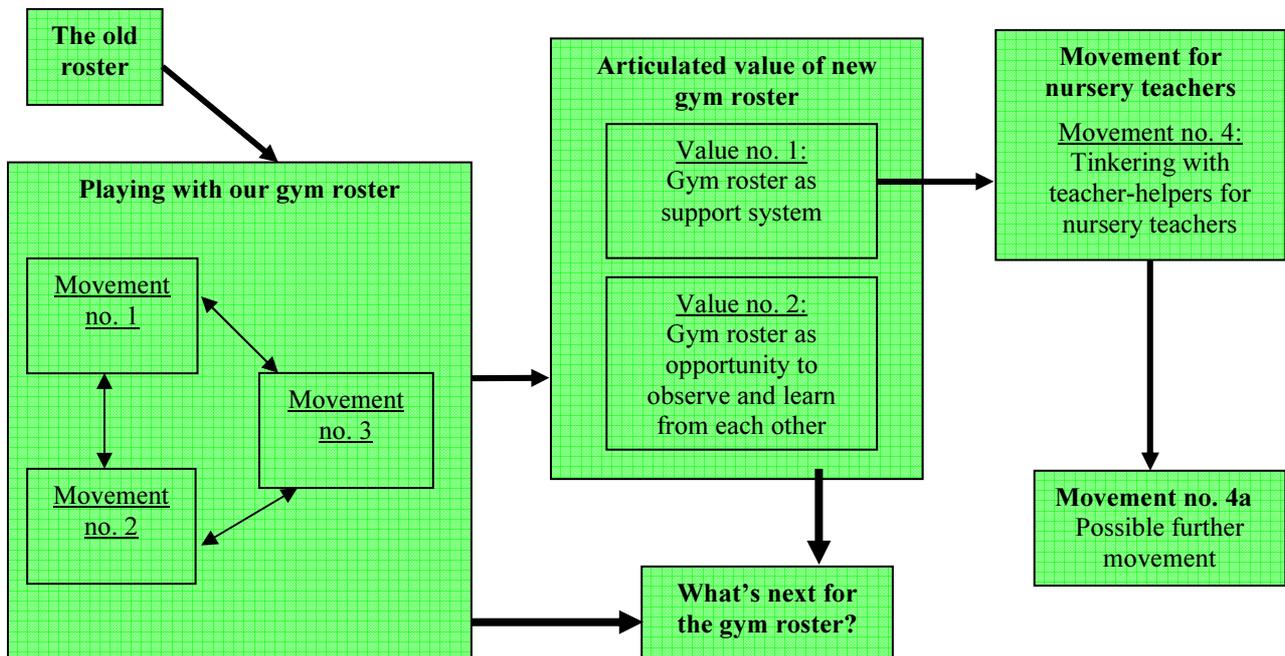
Wenger's (1998) view on the role of knowledge in the business world

'We now recognize knowledge as a key source of competitive advantage in the business world, but we still have little understanding of how to create and leverage it in practice. Traditional knowledge management approaches attempt to capture existing knowledge within formal systems, such as databases. Yet systematically addressing the kind of dynamic "knowing" that makes a difference in practice requires the participation of people who are fully engaged in the process of creating, refining, communicating, and using knowledge'. (p. 1)

*Elements of the story 'Playing with our gym roster' from a temporal perspective:
A summary of the chronology of key events and activities that contributed to development of the story*



*Elements of the story 'Playing with our gym roster' from a coherence perspective:
A summary of the relationships among key events and activities as the told in the story*



The old gym roster : A history of gym time and the gym roster at FUNDamentals Preschool¹

A history of gym time

Gym time was introduced into the centre programme with other structured activities such as group time in January 2003, about five weeks after the centre opened. In June 2003, as a result of increasing enrolment, the preschool gym and group times were split into two groups. This practice remains until today, and the first group consists of the more experienced and older children between the ages of three and five, while the second one is made up of the less experienced and younger children, who are generally two- and three-year olds.

In the early days of the centre, another teacher and I designed the basic programme as a guide to help other teachers conduct gym time. Figure 1 shows the structure of that initial basic programme, which applied to two types of sessions, one with equipment set up in the gym room and one without. The basic programme also made explicit links to Te Whaariki (1996).

Figure 1: Structure of initial basic programme (November 2002)

- Discussion
- Warm up
- Stretch
- Equipment/non-equipment session
- Warm down

By May 2003, I noticed an emerging structure for gym time that gave it its own identity and coherence. In a note to teachers, I represented that emerging structure as shown in Figure 2².

Figure 2: Structure of gym sessions (May 2003)

I have noticed that this general structure for our gym sessions seems to work well at this point in time. So if you're not sure what to do, you can use this structure to help you out.

- Introductory activity
 - Using one of the activities/games we have done with the children
- Focus activity
 - A new activity that is generally done throughout the week
 - The focus activity can become an introductory activity when the children become familiar with it.
- Free play
 - We usually put out 3 to 5 stations so that the children have a choice of doing the stations whenever they want
- Winding down

Jemima's and Frances' timeline project

Between September 2005 and November 2005, as part of their professional development, Jemima and Frances undertook a project they called a 'timeline of the gym programme'. The idea of carrying out this project arose from several conversations among the teachers who were part of the original teaching team. We lamented on the fact that we could not remember how our gym programme came to be the way it is. Jemima and Frances decided to collect information from various sources, organise the documents they collected in a folder and, based on the information and documents, write a summary of the events, actions and decisions that have influenced the development of the gym programme.

The sources they used to create their timeline included:

- The staff meeting diary,
- Internal review documents,
- Teachers' personal diaries and journals,
- Professional development folder
- Programme planning folder

Jemima and Frances also created a questionnaire for the teachers who were part of the original team. Their purpose for the questionnaire was to have some understanding about what they felt and thought around the time they were part of the gym programme. They have plans to summarise the main themes running through the questionnaire when they receive all the questionnaires.

My personal reflections

I have used much of the information Frances and Jemima have gathered to help me create the history of gym time at the centre. At the time Jemima and Frances started working on this project, I had no idea that the information they would gather was going to be useful for my story. It was only when I started writing this movement story did I discover how useful their project was for my purpose. I have found that their project has actually saved me a considerable amount of time looking for the information I needed to describe the history of our gym time. This is even after I take into account the time I spent validating some of the information they collected.

- Winding down song goes like this:
Ka kite, ka kite
We've had lots of fun
Ka kite, ka kite
We've run and we've jumped
Ka kite, ka kite
It's time to wind down
- Children sit in a circle with feet pointing to the middle of the circle
- Stretching song: *If you're happy and you know it* (children can contribute to what action to do)

Since then, we have replaced the introductory activity with an opening song and a time for greetings. I have also noticed that the teachers have selected to pay attention to certain aspects of the suggested structure more than others and, in the process, the gym structure has now evolved to one with the features shown in Figure 3.

Figure 3: Current structure of gym time

- Introductory activity
 - Opening song, with clapping actions, goes like this:
It's gym time, hello, kia ora,
It's gym time, a special time of day,
It's gym time, hello kia ora,
Sit down, listen, we've lots of games to play.
 - Teachers greet children as a group and/or individually (depending on size of the group)
- Teacher's choice (teacher-directed activities)
- Children's choice or free play (child-directed activities)
- Winding down
 - as for structure in Figure 2 but with the addition of the activity below,
 - Lying down on our back and singing ABC or counting (teachers sometimes select a child to choose which of the two activities to do, and if he/she chooses to count, he/she can choose how many to count up to).

The structure of gym time continues to evolve as teachers vary the elements of that structure. For example, some time after we introduced the opening song with clapping actions, Kate and Frances incorporated the cross-over clapping actions for the older children after getting the idea from a brain-gym course³ they had attended.

Older children doing cross-over clapping actions for the gym time opening song



The preschool gym roster

In the early days of the centre, many teachers had the idea that I was going to conduct gym time⁴. But in 2003, the then supervisor decided that everyone would take turns doing gym and group times. It is not clear when the first teaching roster was introduced, which included a roster for gym time, but the roster was well and truly in place in 2004⁵.

Figure 4 gives a version of the roster that was updated in April 2005⁶. According to this roster, for any particular morning between 9 am and 10 am, there would be one teacher in the preschool conducting gym time, one teacher conducting group time, one teacher moving between gym and group times as needed and one teacher having morning break.

	Monday	Tuesday	Wednesday	Thursday	Friday
Group time	Hanin	Titanya	Little Ted	Humpty	Jemima
Gym time	Jemima	Humpty	Titanya	Little Ted	Hanin
Music	Little Ted	Titanya	Humpty	Hanin	Jemima
Numeracy & literacy	Titanya	Humpty	Titanya	Humpty	Manu
Nappies	Hanin	Titanya	Jemima	Manu	Little Ted
Afternoon table top activity	Jemima	Hanin	Little Ted	Manu	Little Ted

Figure 4: The teaching roster as at April 2005

I had an insight into the limitations of having one teacher in the gym room in September 2004, and I perceived the limitations to be more pronounced during teachers' choice time. This insight was one of the outcomes of a research project I undertook as part of my assignment for another Master's paper. For this project, I conducted gym time on my own over a two-week period. During this time, I taught the children a basic hoop dance and together, we worked at creating variations of the dance. I "found that my attempts to teach children various aspects of the hoop dance during teachers' choice were constantly frustrated by interruptions, late arrivals and negative group dynamics" (Hussain, 2004, p.12).

What paper was I doing when I noticed the limitations of one teacher in the gym room?

The paper that I was doing when I had this insight was *TL890: Educational change and the 21st century*. I focused my paper on linking complexity theory with futures issues in and around what I called early childhood physical education.

I attributed my frustration to a combination of factors⁷, some of which included:

- My beliefs about the purpose of teacher's choice activities as giving children the opportunity to experience teacher-directed activities that they may not think of doing themselves,

- The fact that there was only one teacher to conduct the activities and manage everything else that took place during that time- from dealing with toilet accidents to comforting a child who was upset at his/her parent's leaving to sorting out disagreements among children.

By then, Jemima had taken over the role of supervisor, and when I spoke to her about this matter at that time, we were quite aware that there really was not much we could do to change the situation. We were both aware that we did not have enough enrolment to justify employing another teacher so that we could have teachers to support each of the teachers conducting gym time and group time.

Playing with our gym roster

Movement number 1: Initiating and implementing the new roster

The winds of change blew in April 2005. On 11th April 2005, as part of my staff appraisal, I suggested that we could restructure the way we ran the centre programme by employing more teachers at the centre and giving teachers the opportunity to have lunch or non-contact together. I raised this suggestion with the view that perhaps such a restructuring would give teachers more opportunities to engage in informal conversations related to professional matters⁸.

Jemima's reaction to my suggestion came swiftly. She approached me on two days later, and I recorded my memories of our conversation:

'Jemima ... said that she'd read my appraisal worksheet and liked the idea I made about structuring opportunities for teachers to have lunch and non-contact in pairs so that we could have deeper conversations about professional matters. She said she would be looking into the matter, extending this idea to gym times and group times since Manu has joined us and another teacher may join us very soon.

She said that at the moment, she can't observe my gym times and vice-versa because we're both doing either gym time or group time on the same days. She agreed with me when I said that it was one thing to read what someone else had planned and something else to observe and support the person implementing the plan.'⁹

How did staff appraisal contribute to the change?

Jemima, the supervisor, gave each teacher an appraisal preparation worksheet as part of the process of staff appraisal. The purpose of this worksheet, according to its developer (author unknown, p.165) was to encourage 'reflective practice, the giving and receiving of feedback, people skilled in giving and receiving feedback, and developmental opportunities based on goal and objectives jointly decided'.

The worksheet consisted of ten open-ended questions related to the above outcomes. The suggestion I made in relation to this movement story pertained to the question about change, that is, 'Are there ways in which my job could be re-organised to make the work run more smoothly and give me a greater sense of achievement?'

This conversation moved me to ask the question of how we could schedule gym times for teachers so that there were opportunities for everyone to observe and learn from each other¹⁰. I used this question as the objective for reviewing ‘the way we schedule teachers to take gym times’ in an internal review¹¹ of gym time on 18th April 2005¹².

On the very same day, Jemima drafted a new roster, which included changes to other aspects of the programme and not only to gym time. In the new roster, Jemima generated the terms ‘lead’ and ‘support’ teachers to indicate the roles of the two teachers conducting gym time¹³. By the end of the week, the teachers had looked at the draft and made the changes they wanted, I had helped to type out the new roster¹⁴ and on Tuesday 26th April 2005, we implemented the new roster for the first time¹⁵. It had taken a little over two weeks to move from an idea to actual implementation.

Figure 5 shows the first version of the new gym roster¹⁶.

	Monday	Tuesday	Wednesday	Thursday	Friday
Group time	L: Little Ted S: Titanya	L: Titanya S: Hanin	Little Ted	Humpty	Jemima
Gym time	L: Jemima S: Hanin	L: Humpty S: Little Ted	L: Titanya S: Hanin	L: Little Ted S: Jemima	L: Hanin S: Little Ted
Music	Little Ted	Hanin	Titanya	Humpty	Jemima
Numeracy & literacy	Titanya	Humpty	Humpty	Titanya	Humpty/Jemima
Nappies	Hanin	Titanya	Jemima	Little Ted	Shared
Afternoon group time	Manu	Hanin	Little Ted	Humpty	Little Ted

Figure 5: The teaching roster as at April 2005

Movement number 2: Monitoring and evaluating the new roster

Systematic monitoring and evaluation of new gym roster

It was around the time we changed the gym roster that I was also looking for an activity to launch our professional development in Active Movement. I saw the creation of the new roster as a good opportunity around which we could focus our first professional development activity. On the day that Jemima approached me about her reactions to my suggestion, I wrote in my journal:

‘I think the professional development has started in a way that I couldn’t possibly have foreseen.’¹⁷

What is the internal review?

The internal review is a process of self-monitoring and self-evaluating the various aspects of the centre’s knowledge system. These include reviews of policies, core curriculum areas and specific documents such as Te Whaariki (1996), the charter and the centre philosophy.

Documents that are created as part of the internal review process are filed in the internal review folder in the supervisor’s office.

The internal review of gym time described in this story is an example of an internal review of a core curriculum area. Core curriculum areas such as group time, music, sandpit area, puzzles and family and whaanau area are reviewed annually or as required. A schedule for this review is created in November of each year.

How do we review a core curriculum area?

An internal review of a core curriculum area involves the following steps:

- A teacher is assigned the task of reviewing a particular area.
- She records on a specific form what she has noticed or observed, reflects on these and suggests whether or not to review an area, and if so, why, what changes to make, who those changes are intended to benefit and when the review will take place.
- The supervisor and/or teachers will then review the area and implement changes.
- When the change has been implemented for some time, the supervisor or teacher(s) reflect(s) on and evaluate(s) the change.

Although opportunity had come knocking at my door, it took me several weeks to clarify what our first professional development activity would be all about and how we could proceed with it. For me, it was one thing to find a door open for me to enter but it was a different matter altogether to make sense of where the door could lead to and how to get in. The turning point in my process of clarifying our first professional development activity came when I attended the *Teachers-making-a-difference conference* at the Christchurch College of Education on 29th April 2005, where the keynote speakers spoke about action research and evidence-based teaching. It was after this conference that I wondered if we could focus our first professional development activity on evaluating the new roster in a systematic way. I consulted with the teachers to find out if they were happy to do this. Everyone seemed happy enough. It took me a further four weeks to plan this activity in a way that I felt would maintain sort of balance between structure and flexibility¹⁸.

During our first professional development meeting, we discussed how we could collect data to systematically monitor and evaluate the gym roster. This was how we collectively decided to do it¹⁹:

Day/date	Lead teacher's evaluation of gym time		Support teacher's observations Other ideas & anecdotes
	Older children	Younger children	
Mon I think... I did... I want...			
Tue			
Wed			

“We created a form ... to help us monitor and evaluate the implementation of the new roster. We decided on the following actions for the monitoring and evaluation:

- The lead teacher will record in each of the first two blank columns what activity was conducted for teachers' choice, how the activity went, and any incidents that happen in the gym room that can point to the value and limitations of having the support person.
- The support teacher will record on the rightmost column any anecdotes about what she did in the gym room.

- Both the lead and support teachers will fill in the number of children in the little boxes in each of the first two blank columns.
- The teachers will record this data for two months, checking after every month, during staff meeting, to see if any clear patterns have emerged.

I prepared the form for us to use, and later added some A3 sheets of paper for teachers to record any details that cannot fit into the boxes provided in the form.”

We decided that we would analyse the data we collected during the next professional development meeting.

Informal monitoring and evaluation

While I was thinking about evaluating the new roster by systematically collecting data on it, the teachers were already individually evaluating it from the time we implemented it²⁰. The teachers articulated their evaluations of the new roster during a staff meeting on 9th May 2005, and during our dialogue on the concept of the professional development as ‘Playing with our Active Movement knowledge system’. Both events took place before we started our systematic monitoring and evaluation. Perhaps one of the factors that contributed to this outcome was the four-week time lag between the implementation of the new roster and the start of the systematic evaluation. This time lag was not something that was intended- it just happened.

I continued to informally monitor the roster after the systematic monitoring and evaluation ended. It took the form of mutation monitoring, that is, looking out for variations of the roster that emerged from other changes that took place at the centre (see below, p. 288).

Movement number 3: Talking and sharing about the new roster

Between May and July 2005, as part of the evaluation process, we shared our experiences of and judgements about the new roster during the three meetings we had related to it. In my view, these meetings represented ‘formal’ conversations in the sense that they were deliberately set aside for that purpose.

There were also other opportunities for ‘informal’ conversations about the new gym roster, some of which I collected²¹. Later, in the year, after I had noticed the possibility of linking the change in the gym roster with

My personal reflections on the systematic and informal evaluations

It was only in November 2005 that I realised there were two kinds of evaluation happening. This insight emerged as I was analysing the conversations that took place during the staff meeting on 9th May and the first professional development meeting at the same time that I was trying to create a storyboard for this story. I had not realised before then that this had happened.

Looking back on the systematic and informal evaluations, I believe it was a good thing it happened. To me, they highlight different forms of evaluation that take place in the course of teaching. Highlighting these different forms of evaluation serve the purpose of illuminating the complex nature of teaching and learning in a team setting.

Insight on 1st January 2006:

Using ideas from Hargreaves (2000), it is also possible to view the informal evaluation as an evaluation of the roster during its tinkering phase and the systematic evaluation as a more systematic and collaborative process of validation. I believe both forms of validation are crucial for developing sustainable shared practices (see Movement number 4a below, p.19)

movements for the nursery teachers, I talked to them informally about their views on these movements.

Articulated value of the new gym roster

The preschool teachers were generally very positive about the new roster. For example, Humpty saw it as a support system that was “absolutely brilliant” while Little Ted thought it was “phenomenal”²². In addition to these meetings, Little Ted, in her role as assistant supervisor, also reflected on the change in the internal review of the new roster. She wrote:

“For the past three months, we have implemented new changes during gym and group (times). There is a teacher who leads and also a support teacher at all times. This has been very successful ... and will continue as set out.”²³

I have categorised what the teachers valued about the new gym roster into two inter-related themes. The first theme focuses on the value of the roster as a support system for teachers and the second theme focuses on its value as an opportunity for teachers to observe and learn from each other.

Value number 1: The new roster created a support system for teachers

Several teachers articulated their views on what support meant to them²⁴. Frances viewed support as always having someone to help²⁵. Humpty gave an example of what she meant by support when she said,

“This new system is really working ‘cause ... I’ll go in and I’ll think of something but then I’ll think of something that is too complicated for the children for the age group. And then Little Ted and Hanin and Jemima especially are able to bring it down to a level that (the children) can understand.”²⁶

Their notions of support suggest to me that they saw the new roster as an example of a system that made help readily available when needed.

Manu talked about being able to ‘try things without having to worry about whether or not it’s right or wrong’²⁷. Little Ted, on the other hand, talked about having respect for one another and gave an example of what she meant by respect:

“When Humpty and I are in the gym room, we can joke around. But at the end of the day, if I say, “I don’t think that worked. How do you think I could

do something different?” You know, she’s going to come back to me “This is how we do it”. She’s not going to come back to me condescendingly.”²⁸

I have interpreted what Manu and Little Ted expressed as other important facets of support.

We also shared the benefits of the new gym roster²⁹. I view these benefits as different ways in which teachers helped and supported each other during gym time, and I have organised these into a table with some details and/or examples given by the teachers³⁰.

<i>Ways teachers support each other with new gym roster</i>	<i>What teachers said about this way of supporting each other³¹</i>
Helping to settle children	The support teacher helped to settle children who arrived after gym time started and those who were upset on arrival. She also helped to regroup the children scattered all over the gym room while the lead teacher was getting ready for gym time ³² .
Helping to observe children more closely, that is, observe one child while the lead teacher facilitates lesson	‘(I)f I’m taking the gym time, I’ve got to focus on all fifteen and ... keep it going whereas say, for example, Humpty might be able to pick up on the fact that Betty’s really quite focusing on ... doing ... hammering or something like that, whatever she’s suppose to do for gym time’ ³³ .
Helping to deal with parent inquiries	Parent inquiries can include ‘taking cheques, eftpos, bookings’ ³⁴ . Little Ted pointed out that although it was beneficial to have the support teacher deal with parent inquiries during gym time, it was also ‘a bit of a hindrance’ ³⁵ because it took the support teacher away from her role of supporting children and the lead teacher in the gym room.
Helping to support disruptive children ³⁶	While the teachers did not give any particular examples of this during our meetings, it was unspoken knowledge amongst us that at the time we were evaluating the gym roster, we were dealing with several children who disrupted the flow of activities during gym time ³⁷ .
Helping to role model activity in different ways ³⁸	Example 1: ‘you set up activity ... dancing around the gym room... you got that (second) person to facilitate the children on what exactly is supposed to be happening’ ³⁹ Example 2: Having one person to describe the activity and another to demonstrate means that the younger children will be sitting down watching the demonstration; they have a tendency to follow the speaker’s actions and will stand up if the same teacher is doing both talking and

	demonstrating ⁴⁰ Example 3: Two teachers role modelling an activity involving two children at the same time as the teachers did in Titanya's moon race ⁴¹ .
Helping to pick up the lead teacher's slack if the she is not feeling well ⁴²	This was especially important for Jemima who was pregnant at the time of the evaluation.
Helping the lead teacher to write down observations and children's responses	'I just couldn't have done that if I was by myself' so 'I wouldn't even integrate that into the activity', ⁴³ .
Helping to take children to the toilet and help out with children having accidents ⁴⁴ .	

Value number 2: New roster created opportunities for teachers to observe and learn from each other

The teachers also believed that having two teachers in the gym room provided us with opportunities to observe and learn from each other⁴⁵. In our dialogues and discussions, we used the term 'getting ideas' from each other and 'bouncing ideas' off each other to describe such opportunities. We also shared stories of what we learnt from each other from these opportunities.

For example, at one meeting, Humpty talked about how she struggled to get ideas from books in her attempts to plan for teacher's choice activities. She then shared her story of how, during one of those struggles, she observed an activity that I was doing with the children while she was supporting me in the gym room. That experience gave her an idea of what she could do for her gym time⁴⁶:

"Hanin comes in with the thing she's doing lately with just moving around the sun... that is something so ... simple"⁴⁷

At the time that Humpty was referring to, we were focusing our programme on the topic of space. As part of this topic, I had created an action song called 'Moving round the sun'. After supporting me for that activity, Humpty conducted it with the younger children on a different day. Little Ted, who supported Humpty's gym time later that week, carried out the activity with both the younger and older children, varying it by getting the children to move slowly, fast and quietly⁴⁸. It seemed as if Little Ted had picked up the activity from supporting Humpty, who had learnt about it while supporting me.

My personal reflections on the activity
Moving round the sun

I remember well the activity *Moving round the sun*. It is a variation of the movement song *Ring-a-ring-a-rosies* in the sense that it follows the tune but the words have been changed. In the activity, we all pretended to be planets moving around the sun and we sang and acted out the song:

*Moving round the sun
is fun for everyone.
Boom, boom, boom
And we all fall down.*

We have also varied the actions in this song. For example, instead of *we all fall down*, some of the teachers have changed the last line to *we all spin away*.

During one of our professional development meetings, Humpty also told a story of how Little Ted supported her during gym time and how they learnt from each other:

“What I tried didn’t work but Little Ted was able to take it right down to the correct level. We were throwing the balloons but we ended giving the younger children one each and you put on throwing the beanbag song. I mean that works really, really well. You know, you’ve got another person’s ideas. The support system really works”⁴⁹.

Little Ted told a story of how we bounced ideas off each other⁵⁰. While setting up the gym room one day, several teachers had together come up with the idea of tying knots on a rope and attaching the rope to the big climbing frame for children to use in the gym room. Some time later,

“Hanin noticed the fact that (the rope) wasn’t being used probably because it was quite slippery. So she took up the idea and she linked (the rope)” so that the children could hang on to the rope without losing their grip⁵¹.

What’s next for the gym roster?

Based on the teachers’ evaluations, the new roster appeared to be working well. Since then, we have continued to informally monitor and evaluate the new roster; I kept a lookout for what Garmston and Wellman (1999) refer to as mutations. In another internal review of the new roster⁵² in September 2005, I expressed one minor mutation that I had observed. We had made a series of modifications to the roster due to changing circumstances, and my purpose for recording the mutation in the internal review was to articulate those changes and the circumstances that led to it. In October 2005, there were other minor modifications to the roster when several teachers decided to change the days they did gym and group times⁵³.

In the same internal review, I suggested a major mutation—the possibility of a major overhaul of the gym roster in the future as an option ‘to meet the needs of children in terms of their experience with a diversity of teachers, teaching styles and/or activities during gym time’⁵⁴. Jemima said to me before going on maternity leave that she had asked Little Ted to set aside time in early 2006 for teachers to review my suggestions⁵⁵.

Jemima made a suggestion⁵⁶ that if the centre employed additional teachers in the future, we could modify the roster in such a way that the supervisor or assistant

More personal reflections... this time on the activity *Throw the beanbag*

The *throw the beanbag* activity and its variations is a popular activity at FUNdamentals. It is based on the song *Throw the beanbag* found in the CD *Look at me I’m moving Volume 1* (Tessarose Productions, n.d.). In this activity, children and teachers act out the various movements expressed in the lyrics of the song. Some of these movements include throwing the beanbag, putting it on various parts of our body, walking around the room with the beanbag on our head, etc. It is an activity that focuses very much on developing manipulative skills.

The teachers occasionally vary the song by changing the object that we throw. In the story related by Humpty, she was using balloons, pretending that these were moon rocks. During our theme on *Bugs*, we used plastic bugs of various types and sizes.

What is mutation and mutation monitoring?

I use the term ‘mutation’ in this story to mean the variations to a practice that evolve from the complex interactions of factors that affect that practice. In my emerging understanding of this term from the perspective of complex adaptive systems (that is, learning systems), mutations can emerge as intended and unintended outcomes of these interactions through Axelrod and Cohen’s (1999, cited in Visser, 2001) evolutionary processes of attention, selection and variation.

According to Garmston and Wellman (1999, p.129), ‘(m)utation monitoring is an important function of groups for their agreements about how to work together and the projects they have set in motion. Not all mutations are destructive. On the contrary, some are creative approaches that should be identified and shared with others’.

supervisor would not be rostered to do gym or group times. She could then act as a permanent support person in addition to the support teacher already rostered. She could focus her role on dealing with parent inquiries, providing individual support for children with special needs and taking on the role of lead teacher when the latter was away.

Movements for nursery teachers⁵⁷

The new gym roster was relevant only to the preschool teachers and the monitoring and evaluation of the new roster was intended as a professional development activity for the preschool teachers. However, the changes in and the evaluation of the gym roster together with the sharing of ideas arising from these also resulted in some changes or movements for the nursery teachers. These further movements came in the form of new practices for nursery teachers. I will describe one of these new practices, the value and critique of the new practice from the nursery teachers' perspectives and my own reflections on this movement.

Movement number 4: Teacher-helpers for nursery teachers

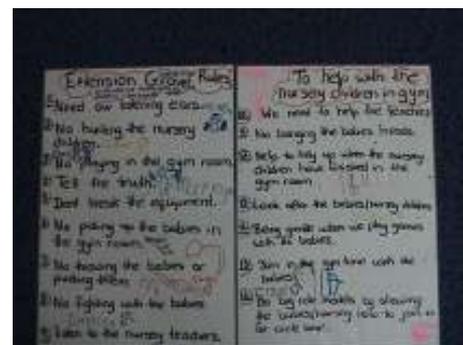
The teachers acknowledged that while the new roster provided a support system for the preschool teachers, a similar support system was not available for the nursery teachers. During our first professional development meeting, Frances pointed out her frustrations during the nursery children's gym time⁵⁸:

“... I've got so many little ones that want to do so many different things... and you can't be there to extend them all at the same time ... because you're only one person (in the gym room)”.

An unexpected solution to provide support for the nursery teachers during gym time came during the second professional development meeting⁵⁹. Some of the teachers brought up their observations that some of the older children love the little ones so much that they stand on the gate between the preschool and the gym room to watch them as they are having gym time. The teachers recognised this as an issue because although we wanted to encourage interactions between the preschool and nursery children, these older children would eventually damage the gate if they continually stood on the gate. The teachers then discussed ways to prevent this from happening. Jemima came up with the idea of having teacher helpers who would help the nursery teachers during the younger children's gym time. The rationale behind the idea was to give the older children some responsibility and the opportunity to interact with the nursery children while the

The teacher-helper idea: How it was implemented

This idea applied only to the four-year olds in the preschool, and Little Ted sat down with them one afternoon to draw up some rules for them to adhere to while helping out the nursery teachers. The children came up with the rules which were written down as a contract and the children signed it (see picture below). Little Ted said to me that the children appeared to understand those rules before they signed them.



Not long after the above activity, I observed several pairs of four-year olds helping out in the gym room. The photo below show one such pair. (Source data: 13th July 2005)



In the early days of the scheme, I remember regularly asking the nursery teachers in the gym room if they wanted help from the older children.

latter were having gym time. Jemima suggested that we trial this solution, and the teachers then spent some time talking about how this idea could be implemented, which is described in the box⁶⁰.

I spoke to Frances⁶¹ in December 2005 about how she felt about having the older children to help out the nursery children in the gym room⁶². Frances said that what she has found valuable about having the older children in the gym room with the nursery children was that the older ones would show the little ones what could be done with the equipment that had been set up. She noticed that the nursery children were more inclined to copy what the older children did and to try out the different equipment when these older children were around. She saw this as the older children scaffolding the nursery children. She also added that she had not been getting the older children to help out much lately for various reasons, and correspondingly noticed that the nursery children were less inclined to try out the equipment.

Frances added that opportunities to spend time with the older children in the gym room have helped nursery children like Jenny to shoot ahead in their movement abilities over the past few months. In her view, children like Jenny, who attended the centre all day, got these opportunities to observe and interact during morning gym time as well as at the end of the day when the preschool and nursery children play together in the gym room. If we do not set these opportunities up during their gym time, children who attend only the morning sessions would miss out. She said that after the Christmas break, she would work towards being more consistent with providing these opportunities for those children who are here only in the mornings.

She pointed out that the value she got from the practice of getting older children to help in the gym room was quite different from her original idea. She had initially thought that the older children would play a leadership role in helping the younger ones in their exploratory play and in teacher-directed activities such as lycra and parachute. She had started out with one idea about what she thought would be the value of this practice and ended up with a different value. However, she welcomed this difference between what she had anticipated and what eventuated. This seems to suggest to me that Frances had gone through a process of change- she had anticipated a particular value from getting the older children to help out in the gym room, and after implementing this practice and reflecting on it, she found a different value in it.

My observations and reflections in my journal entry dated 22nd November 2005:

‘Yesterday, I overheard Frances asking two of the 4-year old girls to help her in the gym room during the nursery children’s gym time. She wanted to do a parachute activity, and I think she wanted them to help her to model to the younger ones what to do. I haven’t seen the nursery teachers ask for help from the preschool children for quite a while, and it was good to know that we’ve moved to the point where Frances can just ask for help from the children, and the children can help and know what to do. So I guess the idea of getting the preschool children to help out during the nursery gym time has been incorporated into our practice in the sense that the teachers know that that option is available to them. The only thing we need to do is to keep introducing new helpers to this experience so that when the experienced helpers leave, there’ll always be others to take their place. I think I have to talk to the nursery teachers about how they feel it’s working or not working for them.’

I also spoke to Meeka about the teacher-helpers scheme⁶³. I mentioned what Frances had told me about her insight that the teacher helpers were helping the nursery children by role modelling the possible kinds of activities that the latter might not think of doing themselves, and asked Meeka for her thoughts and feelings.

Meeka said that she felt the practice worked really well at the start, but lately, she had not been having the older children as teacher helpers because she felt that they seemed to have forgotten that they were there to help out. She thought that the idea of being a teacher helper had lost its initial special meaning for the children, so that they were treating this time as another gym time- a time for playing in the gym room among themselves. She felt that, although the idea had potential benefits for children and teachers, it was becoming too much trouble for her to have them there because it meant having extra children to look after.

Meeka also wondered if we were still implementing the idea and I said that many of the children who were initially involved in the scheme had left to go to school. We will continue to lose others over time, and we have not really trained others to take their place.

My personal reflections on my conversation with Meeka about how to possibly keep the scheme self-sustaining if we want to continue with it:

‘I guess for this scheme to work, there needs to be continual monitoring of how it is going and regular induction of new helpers so that it keeps itself going. This is especially so in the initial stages until some sort of self-organisation takes place and the practice becomes entrenched into our centre culture and develops a life of its own. Next year, I think I will bring this up with the teachers and see if they want to resurrect this and how we can do this. This natural dying-out of the idea resonates with what Fullan (2003) says- that it is one thing to have an idea, it is another thing to make it work. We have thought about the what but didn’t put much thought into the how. In other words, we started trying to put the idea into practice but didn’t nurture it to the point where it takes a life of its own. But all is not lost. We have gained insight into its potential and why it didn’t work. Maybe someone can take leadership of the idea and nurture it into practice as part of her project. I wonder if Bronwyn or Angela would be willing to take on this role, and work with the nursery teachers on this.’
(Source data: E-journal 13th December 2005)

Movement number 4a: Possible future movement

Personal reflections and possible future movement in the teacher-helper scheme

I see this idea as one way of providing support for the nursery teachers while they are doing gym time, since the roster does not apply to them. I see it as a win-win scheme for teachers, children and the centre as a whole and one that is workable within the context of the centre. For these reasons, I personally believe it is worthwhile to move this scheme beyond its trial stage and subject it to more systematic validation (Hargreaves, 2000, p.231; see above p. 275).

I will articulate my reflections on the development of the above idea using my journal entries, our initial discussions about this scheme, my later conversations with Frances and Meeka and my tacit knowledge of this scheme as bases for my reflections. I will focus my reflections on our attempt to move the scheme from an idea into a practice, the issues and problems associated with the move and how we can possibly nurture it so that it becomes a sustainable practice, should we want to continue with it. My discussion will use complexity theory as the underlying theory of change (Fullan, 1999, 2003) since I view the movement from this idea to practice as a form of change involving many people- I view any change that involves the collaborative efforts of many people as a complex change.

What did I learn from the story about the teacher-helper scheme?

In the creation of the idea, the teachers saw the potential and multiple value of the idea for the teachers, the children and the centre. To summarise these values,

- the nursery teachers could get some support from the children in their attempts to cater to the individual children’s movement needs and abilities,
- the nursery children could get help from the older children while the older children would be able to interact with their nursery counterparts and learn responsibility and leadership, and
- in the process, it was hoped that the preschool children would stop standing on the gate, thereby extending its lifespan.

After implementing the scheme for five months, Frances believed that the biggest value of the scheme for her was that the nursery children had the opportunity to observe the older children and get ideas from them about what they could do with the equipment that was set up. In the same way that the new gym roster provided opportunities for teachers to

observe and get ideas from each other, this scheme gave the nursery children opportunities to observe and learn from the preschool children.

There are, however, issues and tensions that have arisen in our attempt to convert this idea into action. I have summarised them below and raise some questions arising from these in the hope that they will generate further dialogues, discussions and, in the process, clarify the resolution of these issues and tensions:

1. I sense variations and inherent tensions in the meanings we ascribe to the words 'playing' and 'helping out'. Meeka pointed out the problem of children playing when they are supposed to be helping the younger children and the teacher. This had led to more supervision problems for her. In this first case, the children can be viewed as playing but not helping out. However, Frances pointed out the value of having the preschool children to play in the gym room during the nursery gym time, and in the process, show the nursery children what they can do that they might not otherwise think of doing themselves. In this second case, it seems to me that the preschool children are both playing and helping out. In attempting to clarify and/or resolve this tension, I ask the following questions:
 - What does helping out mean?
 - When do helping out and playing clash or conflict? What does this look like, that is, how do we recognise that this is happening?
 - When do helping out and playing synergise? What does this look like so that we can recognise this synergy?
 - If we do want to synergise the meanings of 'helping out' with 'playing', what conditions can we create during the nursery children's gym time to achieve this outcome?
2. There has been a movement or shift away from the initial implementation of this idea, or in Garmston and Wellman's (1999) terminology, there has been a mutation in the original idea. In my understanding of the initial idea of this scheme, the older children would take their instructions from the teachers to show and guide the nursery children in their explorations. I see a high degree of teacher-direction behind what the preschool children can and should do. In turn, the preschool children would be helping by directing the nursery children's activities. However, I interpret Frances' later insight to be a realisation that she valued a higher degree of autonomy for the preschool children in terms of what and how they guided the nursery children. I welcome this mutation, variation or difference, which, to me, represents, a shift toward a more negotiated framework for teaching and learning, one involving co-construction of teaching and learning for the teachers, preschool children and nursery children. The questions that I ask from this insight are:
 - Which outcome(s) do we value? Just one? Both?
 - If we value both outcomes, can we achieve them both? If not, which outcome is easier to achieve? Should we focus our efforts on the one that is easier to achieve?
3. I view the implementation or trial of this teacher-helper scheme over the past six months as a tinkering of the idea. If we believe that this practice is worth developing and want to nurture it into a sustainable practice, we need to move it beyond this tinkering phase and subject it to what Hargreaves (2000) calls systematic validation. Using Garmston and Wellman's (1999) framework for creating ideas and managing actions, I recognise that we have generated a good idea, created a plan for converting the idea into action and implemented the plan. However, there are two processes that are missing from this plan; processes that I interpret as part of systematic validation and crucial for this practice to move beyond its tinkering phase to develop into a sustainable practice. The first process is the process of clarifying commitment and responsibilities and the second is that of systematically monitoring and evaluating the scheme (Gramston & Wellman, 1999). This insight begs the questions:
 - Is this a scheme *by* the nursery teachers and/or the preschool teachers? Is it *for* the nursery teachers and/or preschool teachers? Is this scheme part of normal centre life and can/should be addressed during staff meeting? Or is it part of the professional development and can/should be addressed during our professional development meeting? Or both? What is/are involved in making this scheme work? Who is/are responsible for the various aspects of this scheme? At present, we have not addressed these questions and I believe this lack of clarity has contributed to Meeka's question about whether the scheme is still being implemented.
 - How do we monitor and evaluate the scheme? Using a similar process as the one for the new gym roster? Or monitoring and evaluating it as part of the core curriculum review? Or a mixture of both? What are we monitoring anyway? Who will monitor and evaluate the scheme? When and how regularly do we do it? How do we represent and share the process and product of our evaluations?

It is possible to view this movement story as an evaluation of the scheme. However, this evaluation represents an unintended outcome of my research; had I not been conducting this research, individual evaluations by Frances, Meeka and myself might never have been collected and shared. The point I wish to make here is that when introducing a

shared practice that is completely new, we need to have a conscious plan to monitor and evaluate the changes we make to this shared practice if we are to sustain it. For a shared practice involving multiple players to be effective, the process of monitoring and evaluation of that shared practice cannot be ad-hoc and left to happen by chance. We need to systematically validate this new practice as we did the new gym roster, although we do not necessarily have to validate it in the same way. This, I believe, is the point Wenger et al (2002), Garmston and Wellman (1999) and Hargreaves (2000) make when they call for the need to be systematic in making and evaluating new practices involving many people.

How can I apply what I have learnt and what can happen when I apply it?

I will put this story and the insights from the story to the teachers and ask if we wish to nurture this practice. Should we decide to do so, we can then dialogue and discuss the issues that Frances, Meeka and I have highlighted, and create a systematic plan to further develop this practice. It is possible that this practice can become as valuable a practice as our gym roster.

The key question we need to ask ourselves is 'Is this worth doing?' Perhaps Lee Kuan Yew, former Prime Minister of Singapore, can offer us some advice:

'First, I've got to decide whether something is worth doing. If it's not worth doing, well, I'm not prepared to spend the time over it, to make the effort. Then, I just coast along, it doesn't matter whether it succeeds or doesn't succeed, it's of no consequence.

But if I decide that something is worth doing, then I'll put my heart and soul into it. I'll give everything I've got to make it succeed. So I would put my strength, determination and willingness to see my objective to its conclusion. Whether I can succeed or not, that's another matter- but I will give everything I've got to make sure it succeeds. If I've got to get good people, I get good people. If I've got to change tack, I will change tack. If you have decided something is worth doing, you've got to remove all obstacles to get there.' (Lee Kuan Yew, in Han, Fernandez and Tan, 1998, p.16)

26th December 2005-8th January 2006

Endnote

¹ I am grateful to Jemima and Frances for undertaking a project to look into how our gym programme came to be the way it is. I have found the timeline they have created and the documents that they have collected to be very useful for this part of the story.

² Source data: DD/230605/1

³ In January 2006, after reading through the draft of the story as part of the process of validating the story, Jemima mentioned to me how we incorporated the cross-over clapping actions. Frances remembered attending the course but neither she nor Jemima could remember when they did it. I could find no reference to the course in any of the centre documents I have looked. Both Jemima and Frances think it was either in 2003 or 2004.

⁴ This was a sentiment echoed by many of the teachers who were part of the original teaching team- Frances, Jemima, Humpty and Titanya. Personally, I have no clear recollections of whether I thought I was the one to do gym times or whether gym times was to be conducted by all teachers.

⁵ See the following journal entries for my attempts to find when we first introduced the roster: <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\movement stories\ppda1-monitoring and evaluating new gym roster\journal 21st December 2005.doc>

⁶ Source data: DD/290405/1. I have simplified the roster to keep it simple. For example, I removed the name of one of the teachers who joined us at that time but left very soon due to medical problems and decided not to include the non-contact roster. On 18th January 2006, as part of the process of data validation, Manu pointed out to me that she only joined the centre in April 2005. It appears that perhaps this version of the roster, while updated in March 2005, was further changed in April 2005 to include Manu.

⁷ This is a summary of what I viewed as contributing factors. See Hussain (2004, p.12-14)

⁸ Source data: DD/110405/1

⁹ Source data: <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\movement stories\ppda1-monitoring and evaluating new gym roster\conversation with Kate 130405.doc>, <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\movement stories\completed stories\conversation with Kate 130405.doc>

¹⁰ Source data: <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\movement stories\ppda1-monitoring and evaluating new gym roster\conversation with Kate 130405.doc>, <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\movement stories\completed stories\conversation with Kate 130405.doc>

¹¹ Source data for **What is the internal review?**: Internal review policy (DD/050106/1). The process described in box titled **How do we review a core curriculum area?** is based on DD/201205/1 and my own personal experiences of conducting the review, verified by Jemima and Little Ted.

¹² Source data: Core curriculum review sheet dated 18.4.05 (DD/201205/1)

¹³ Source data: RJ4P38L10.5-P39L27

¹⁴ Source data: RJ4P40L23-P42L27

¹⁵ Source data: RJ4P56L0-P56L10

¹⁶ Source data: DD/290405/2

¹⁷ Source data: RJ4P38L10.5-P39L27

¹⁸ Source data: <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\movement stories\ppda1-monitoring and evaluating new gym roster\activity 1 for preschool teachers.doc>, <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\professional development in AM\professional development activities\ppda1\activity 1 for preschool teachers.doc>

¹⁹ Source data: <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\movement stories\ppda1-monitoring and evaluating new gym roster\A3 preschool teachers' discussing %26 sharing of ppda1.doc> and <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\professional development in AM\professional development activities\ppda1\ppda1 table.doc>

²⁰ Source data: E-journal 13th November 2005

²¹ See the following journal entries for examples of informal conversations that I have collected and written about: <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\movement stories\ppda1-monitoring and evaluating new gym roster\conversation with Kate 130405.doc>, <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\movement stories\ppda1-monitoring and evaluating new gym roster\change in new roster 19 jul 05.doc>, <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\movement stories\ppda1-monitoring and evaluating new gym roster\change in gym roster 281005.doc>

²² Source data: PDMtg1P27L2-L6

²³ Source data: Core curriculum review sheet dated 18.4.05 (DD/201205/1). Little Ted's entry in the review was not dated, but her words 'For the past three months' suggests that she wrote this at the end of July 2005.

²⁴ With the exception of Humpty, the teachers did not directly state that what they were talking about was about support. I have interpreted their statements as support based on my understandings of the dialogue and discussion that took place during the meetings.

²⁵ Source data: PDMtg1P26L17

²⁶ Source data: PDMtg1P17L3-L11

²⁷ Source data: PDMtg1P26L6-7.5

²⁸ Source data: PDMtg1P26L20.5-L25

²⁹²⁹ The use of the term ‘benefit’ is a direct outcome of the way I have phrased the questions we used for analysing our evaluation data. For details of how and why we analysed the data, see <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\movement stories\ppda1-monitoring and evaluating new gym roster/activity 1 for preschool teachers analysis & presentation.doc>.

³⁰ Source data: <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\movement stories\ppda1-monitoring and evaluating new gym roster\ppda1 data display & analysis.doc>, <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\transcriptions\transcription of PDMtg2.doc>, and DD/040705/2.

³¹ While the ways in which the teachers helped and supported each other came from the discussion of the formal evaluation, not all the examples appear to come from the data from that formal evaluation. My hunch is that the teachers used mixture of data from the formal evaluation and personal experiences from our informal evaluation in the form of actual experience and local analogies.

³² Source data: PDMtg2P8L10.5-L13 in <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\transcriptions\transcription of PDMtg2.doc>. See entries on Tuesday, 24/5/05 (page 1) and Wednesday, 25/05/05 (page 1) in DD/160705/1 for data to support this finding.

³³ Source data: PDMtg2P8L13.5-17.5 in <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\transcriptions\transcription of PDMtg2.doc>. There was a record of the lead teacher making a similar observation of another child (DD/160705/1). See entries on Thursday, 9/6/05 (page 3) and Bubble 1 (page 7) of DD/160705/1.

³⁴ Source data: PDMtg2P8L20-21.5 in <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\transcriptions\transcription of PDMtg2.doc>. See entries in DD/160705/1 on Friday, 27/5/05 (page 1) and Tuesday, 31/05/05 (page 2) in DD/160705/1 for data to support this finding.

³⁵ Source data: PDMtg2P8L19-19.5 in <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\transcriptions\transcription of PDMtg2.doc>. Little Ted’s comment about this aspect of support being both a benefit and a hindrance suggests, to me, a critical awareness of this particular issue.

³⁶ Source data: PDMtg2P8L23 in <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\transcriptions\transcription of PDMtg2.doc>.

³⁷ Examples of data to support this finding include entries in DD/160705/1 on Monday, 30/5/05 (page 1), Wednesday, 1/6/05 (page 2) and Friday, 1/7/05 (page 6)

³⁸ Data from the formal evaluation to support this finding include entries on Thursday, 9/6/05 (page 3) and Friday, 10/6/05 (page 3) in DD/160705/1.

³⁹ Source data: PDMtg2P8L23.5-L25.5 in <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\transcriptions\transcription of PDMtg2.doc>.

⁴⁰ Source data: PDMtg2P9L9-L14 in <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\transcriptions\transcription of PDMtg2.doc>.

⁴¹ Source data: PDMtg2P9L18-L25 in <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\transcriptions\transcription of PDMtg2.doc>.

⁴² Source data: PDMtg2P9L0-L9 in <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\transcriptions\transcription of PDMtg2.doc>.

⁴³ Source data: PDMtg2P9L14-L18 in <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\transcriptions\transcription of PDMtg2.doc>.

Although Jemima did not give a specific example during the discussion, I remember the activity she was referring to during which I was acting as scribe. I did not find written record of this activity in the data related to the formal evaluation. I view this comment by Jemima as an example of her critical awareness of teaching constraints.

⁴⁴ Source data: PDMtg2P10L2-L4 in <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\transcriptions\transcription of PDMtg2.doc>. I have found no data in our formal evaluation that related to this but I know from experience that this occasionally happens. This suggests that at the time of our formal evaluation, there were either no cases of this happening or the teachers did not record such cases.

⁴⁵ Source data: PDMtg1P30L8.5-P31L8.5.

⁴⁶ See Humpty’s entry in DD/160705/1 on Tuesday, 24/5/05 (page 1) for her activity ‘Moving around the sun’ with the younger children.

⁴⁷ Source data: PDMtg1P29L14-L21

⁴⁸ Source data: See entries on Tuesday, 24/5/05 to Friday, 27/5/05 in DD/160705/1.

⁴⁹ Source data: PDMtg1P36L2.5-L21.

⁵⁰ Source data: PDMtg1P30L8.5-P31L8.5. Little Ted repeated the same point about bouncing ideas from each other in PDMtg2P10L4-L6.5 in <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\transcriptions\transcription of PDMtg2.doc>.

⁵¹ I remember this episode although I cannot remember when it happened. The teachers were teasing me about how I could not part with my skipping rope although the handles were broken.

⁵² Source data: Curriculum review of gym time (1) in <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\movement stories\ppda1-monitoring and evaluating new gym roster\CORE CURRICULUM REVIEW SHEET sep 05.doc>. Also refer to the following documents for events and decisions that gave rise to this

mutation: PDMtg2P5L12-L25.5 in <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\transcriptions\transcription of PDMtg2.doc>, Recommendation 1b in <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\movement stories\ppda1-monitoring and evaluating new gym roster\ppda 1 recommendations for action.doc>, <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\movement stories\ppda1-monitoring and evaluating new gym roster\change in new roster 19 jul 05.doc>

⁵³ Source data: <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\movement stories\ppda1-monitoring and evaluating new gym roster\change in gym roster 281005.doc>

⁵⁴ Source data: E-journal 30th September 2005, Curriculum review of gym time (2) in <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\movement stories\ppda1-monitoring and evaluating new gym roster\CORE CURRICULUM REVIEW SHEET sep 05.doc>

⁵⁵ Source data: E-journal 4th October 2005

⁵⁶ Source data: Jemima's feedback on story. Jemima made this suggestion as part of the validation process in January 2006. By then, she had gone on maternity leave, and I took a copy of the draft to her home for her to check that she was happy with what I had written about her.

⁵⁷ I gained this insight on 15th Nov 2005 as I was writing this movement story. Initially, I had thought that this story was going to be simple and straightforward. But as I looked at the story and the data, and tried to make connections, I realised that our meetings on the new preschool gym roster, which involved both preschool and nursery teachers, highlighted some of the problems the nursery teachers faced in trying to conduct their gym time. The articulation of this problem led to discussions about how we could help the nursery teachers solve these problems.

⁵⁸ Source data: PDMtg1P31L9-L12

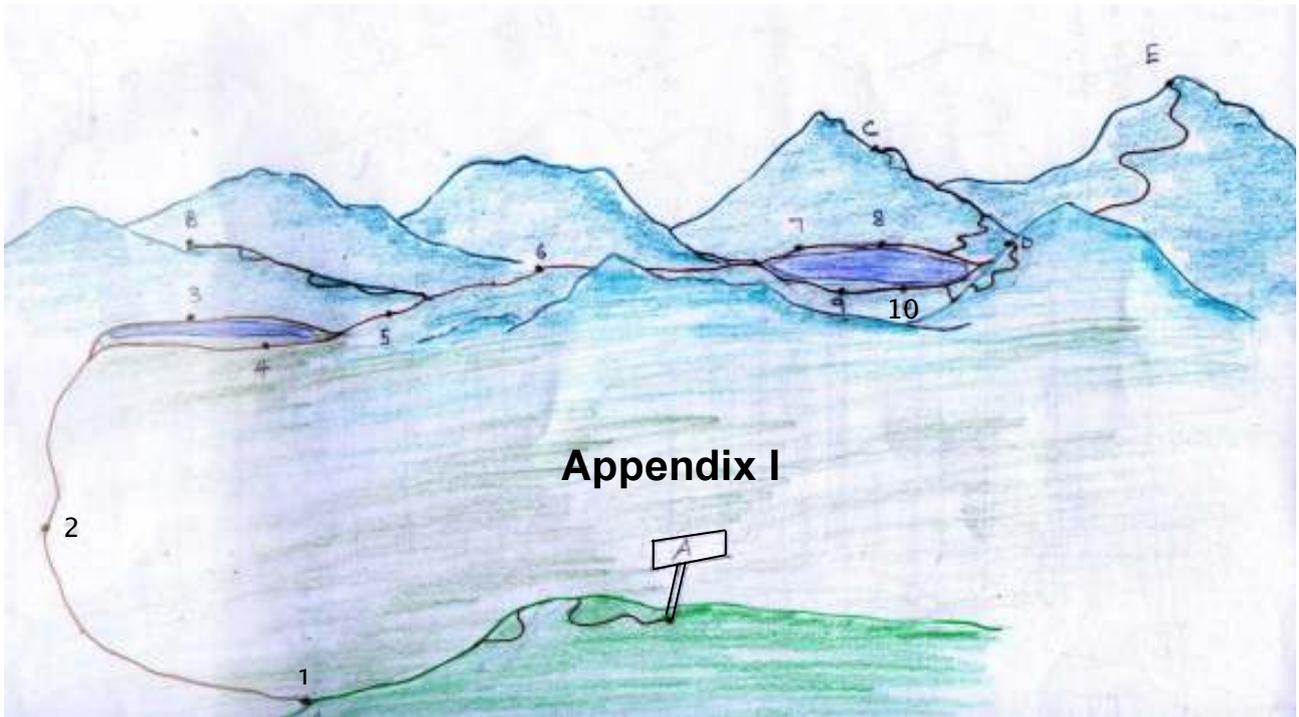
⁵⁹ Source data: PDMtg2P12L22-P14L26 in <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\transcriptions\transcription of PDMtg2.doc>, E-journal 13th July 2005.

⁶⁰ Source data: PDMtg2P12L22-P14L26 in <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\transcriptions\transcription of PDMtg2.doc>, E-journal 13th July 2005.

⁶¹ I will view my conversations with Frances and Meeka on the teacher-helper scheme as their informal evaluations of it.

⁶² Source data: E-journal 10th December 2005

⁶³ Source data: E-journal 13th December 2005



Appendix I

Moving towards sustainable practices

Moving towards sustainable practices

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Moving towards sustainable practices

Changing the preschool gym roster¹

Introduction

Gym time was introduced into the centre programme in January 2003, about five weeks after the centre opened. In those early days, many teachers had the idea that I was going to conduct gym time because of my experience with teaching physical education. However, sometime in 2003, the supervisor at that time decided that all teachers should take turns conducting gym time and group time, the other structured activity in the centre's programme. This led to the creation of the teaching roster, a roster that is now very much entrenched in the preschool teachers' practice.

It is not clear when the first teaching roster, which included a roster for gym time, was introduced but by 2004, it had become normal centre practice. Figure 5-1 below shows a version of the gym roster that was updated in April 2004. According to this roster, between 9am and 10am on any particular morning, there would be one teacher conducting gym time, another conducting group time, one moving between gym and group time and one teacher having a morning break.

	Monday	Tuesday	Wednesday	Thursday	Friday
Group time	Hanin	Titanya	Little Ted	Humpty	Jemima
Gym time	Jemima	Humpty	Titanya	Little Ted	Hanin
Music	Little Ted	Titanya	Humpty	Hanin	Jemima
Numeracy & literacy	Titanya	Humpty	Titanya	Humpty	Manu
Nappies	Hanin	Titanya	Jemima	Manu	Little Ted
Afternoon table top activity	Jemima	Hanin	Little Ted	Manu	Little Ted

Figure 5-1: The old teaching roster as at April 2005

I had an insight into the limitations of having one teacher in the gym room in September 2004 when I was doing an action research project for another Master's paper. For this project, I conducted gym time on my own over a two-week period, teaching the children a basic hoop

dance and working together to create variations of the dance. During this time I “found that my attempts to teach children various aspects of the hoop dance during teacher’s choice were constantly frustrated by interruptions, late arrivals and negative group dynamics” (Hussain, 2004, p.12).

I attributed my frustration to a combination of factors. One of these factors was that there was only one teacher to conduct the activities and manage everything else that took place during that time- from dealing with toilet accidents to comforting a child who was upset at his/her parent’s leaving to sorting out disagreements among children (Ibid, p.12-13).

By then, Jemima had taken over the role of supervisor, and when I spoke to her about this matter then, we were both quite aware that we could not do much to change the situation. We did not have enough enrolment to justify employing another teacher so that we could have teachers to support each of the teachers conducting gym time and group time.

The winds of change

The winds of change blew in April 2005. By then, another teacher, Manu, had joined us and another was likely to join us soon. On 11th April 2005, as part of my staff appraisal, I suggested that we could restructure the way we ran the programme by giving teachers the opportunity to have lunch and non-contact together. In this way, I hoped that teachers would have more uninterrupted opportunities to engage in informal conversations related to professional practice.

Jemima agreed with my views and spoke to me about it two days later. I recorded my memories of our conversations²:

“Jemima ... said that she’d read my appraisal worksheet and liked the idea I made about structuring opportunities for teachers to have lunch and non-contact in pairs so that we could have deeper conversations about professional matters. She said she would be looking into the

matter, extending this idea to gym times and group times since Manu has joined us and another teacher may join us very soon.

She said that at the moment, she can't observe my gym times and vice-versa because we're both doing either gym time or group time on the same days. She agreed with me when I said that it was one thing to read what someone else had planned and something else to observe and support the person implementing the plan."

This question moved me to ask the question of how we could schedule the gym roster so that there would be opportunities for everyone to observe and learn from each other. I used this question as the objective for reviewing "the way we schedule teachers to take gym times" in an internal review of gym time on 18th April 2005.

On that very same day, Jemima drafted a new roster, which included changes to gym time and other aspects of the teachers' practice. In this new roster, Jemima created the terms 'lead' and 'support' teachers to indicate the roles of the two teachers conducting gym time. By the end of that week, the teachers had looked at the draft and made the changes they wanted. I helped to type out the new roster and on Tuesday, 26th April 2005, we implemented the new roster for the first time. It had taken a little over two weeks to move from generating the idea to implementing it. Figure 5-2 show the first version of the new roster.

	Monday	Tuesday	Wednesday	Thursday	Friday
Group time	L: Little Ted S: Titanya	L: Titanya S: Hanin	Little Ted	Humpty	Jemima
Gym time	L: Jemima S: Hanin	L: Humpty S: Little Ted	L: Titanya S: Hanin	L: Little Ted S: Jemima	L: Hanin S: Little Ted
Music	Little Ted	Hanin	Titanya	Humpty	Jemima
Numeracy & literacy	Titanya	Humpty	Humpty	Titanya	Humpty/Jemima
Nappies	Hanin	Titanya	Jemima	Little Ted	Shared
Afternoon group time	Manu	Hanin	Little Ted	Humpty	Little Ted

Figure5-2: The new teaching roster as at April 2005

Monitoring and evaluating the new gym roster

Data-based monitoring and evaluating the new gym roster

At the same time we implemented the new roster, I was also looking for an activity to launch our learning journeys. I saw the creation of the new roster as a good opportunity around which we could focus our first professional development activity. However, it took several more weeks to clarify what we could do and how we could go about doing it.

The turning point came when I attended the *Teachers-making-a-difference* conference at the Christchurch College of Education on 29th April 2005, where the keynote speakers spoke about action research and evidence-based teaching. It was after this conference that I wondered if we could focus our first professional development activity on evaluating the new gym roster systematically and using data or evidence as a basis for our evaluation. I consulted the preschool teachers to find out if they wanted to do this, and they seemed happy. Being new to the idea of conducting data-based monitoring and evaluation in a team setting, it took me a further four weeks to plan this activity.

During our first professional development meeting on 23rd May 2005, the preschool teachers discussed how we were going to go about with this process of systematic and data-based monitoring and evaluation. We decided what data to collect and how each teacher would contribute to this data collection process, and shared with the nursery teachers our plan. Six weeks later, on 4th July 2005, we collectively analysed the data we collected and shared our analysis with the nursery teachers.

Experienced-based monitoring and evaluation of the new roster

In November 2005, as I was writing the interim movement story, *Playing with our gym roster*, I realised that at the same time we were systematically collecting data to monitor and evaluate the new roster, we had already been informally monitoring and evaluating it based on our experiences with it. The teachers articulated their experiences with the new roster during a staff

meeting on 9th May 2005, and later during our first professional development meeting on 23rd May 2005 when we were talking about what the idea of *Playing with our Active Movement knowledge system* meant to us. Both these articulations took place before we started our data-based monitoring and evaluation of the new gym roster. I also suggested in this interim movement story that perhaps the four-week time lag between the implementation of the new roster and the start of the data-based monitoring and evaluation was a key factor that gave rise to the informal and experience-based evaluation. However, I welcomed this outcome because it highlighted different forms of evaluation that could take place in the course of teaching, which, in turn, further illuminated the complex nature of teaching and learning in a team setting.

Articulated value of the new gym roster

The preschool teachers were generally very positive about the new gym roster. For example, Humpty saw it as a support system that was “absolutely brilliant” while Little Ted thought it was “phenomenal”. Little Ted, in her role as assistant supervisor, also reflected on the change in the internal review of the new roster in July 2005. She wrote

“For the past three months, we have implemented new changes during gym and group (times). There is a teacher who leads and also a support teacher at tall times. This has been very successful ... and will continue as set out.”

When I sat to analyse what the teachers said about the gym roster, I realised that it was possible to categorise what they valued about the new roster into two inter-related themes. The first theme focuses on the value of the roster as a support system for teachers and the second on its value as an opportunity for teachers to observe and learn from each other.

The new roster as a support system for teachers

During the evaluation meetings, the teachers shared the benefits of the new roster as a support system. We gave examples of the ways in which the new roster made it easy for us to support each other. Among other things, the presence of a support teacher made it easier for teachers to

settle children who arrive late, support disruptive children, role model the activity, write down observations and children's responses and take children to the toilet. It seemed to me that the new roster had helped to address the limitations of the old roster that I had earlier expressed as my basis for suggesting change.

The new roster as an opportunity for teachers to observe and learn from each other
The teachers also believed that that having two teachers in the gym room gave us the opportunities to observe and learn from each other. We shared stories about our learning from these opportunities. Humpty told a story of how she and Little Ted had learnt from each other during gym time when Little Ted was supporting her:

“What I tried didn't work but Little Ted was able to take it right down to the correct level. We were throwing the balloons but we ended up giving the younger children one each and you put on the throwing the beanbag song. I mean that works really, really well. You know, you've got another person's ideas.”

In my interim movement story, *Playing with the gym roster*, I called this type of teacher learning 'getting ideas from each other' and 'bouncing ideas off each other'.

The emergence of the teacher-helper scheme

The new gym roster was relevant only to the preschool teachers and the monitoring and evaluation of the new roster was intended as a professional development activity for the preschool teachers. However, during our professional development meetings, the preschool teachers had shared their plans of and findings from the monitoring and evaluation process with the nursery teachers, and both groups had traded stories, ideas, hopes and frustrations.

One of the frustrations that was expressed came from Frances, a nursery teacher. She said of her frustration during the nursery children's gym time,

“... I’ve got so many little ones that want to do so many different things ... and you can’t be there to extend them all at the same time ... because you’re only one person (in the gym room)”.

With this expression of frustration, the teachers acknowledged that while the new gym roster provided a support system for the preschool teachers, a similar support system was not available for the nursery teachers. During the second professional development meeting on 4th July 2005, the teachers came up with a solution that would create a support system for the nursery teachers in the gym room, but one that did not involve support teachers but instead preschool children.

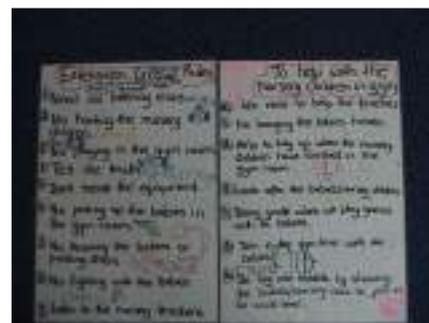
During our discussions at that meeting, some of the teachers shared that they observed some of the preschool children frequently standing on the little, wooden gate that separated the preschool from the gym room whenever the nursery children were having their gym time. While no one objected to the preschool children watching and interacting with the nursery children, we realised that we were constantly having to remind them not to stand on the gate so that not to damage it. The teachers discussed ways to prevent damage to the gate and Jemima came up with the idea of having preschool children as teacher-helpers in the gym room to achieve this end and, at the same time, help the nursery teachers during their gym time. The rationale behind this idea was to give the preschool children some responsibility and the opportunity to interact with the nursery children while the latter were having gym time. Jemima suggested that we trial the idea, and we spent some time discussing how we could implement this teacher-helper scheme. The idea of the teacher-helper scheme was born.

The teacher-helper scheme

Tinkering with the idea

In my interim movement story, *Playing with our gym roster*, I described how the teacher-helper scheme was implemented in its early days. It would involve only the four-year olds as teacher-helpers, and Little Ted sat down with them one afternoon to draw up some rules for them to

adhere to while helping out the nursery teachers. The children came up with the rules which were written down as a contract and the children signed it (see picture above). Little Ted said to me that the children appeared to understand those rules before they signed them.



In our discussions on how to implement the teacher-helper scheme, we did not talk about how to monitor or evaluate the scheme. However, I monitored its implementation in my roles as the professional development co-ordinator and researcher, making observations, taking photographs and talking to the nursery teachers.

In December 2005, about six months after we started the teacher-helper scheme, I spoke first to Frances, then to Michial about the scheme. Frances said that what she had found valuable about having the preschool children as teacher-helpers was the fact that they could model what could be done with the equipment in the gym room. She noticed that the nursery children were more inclined to copy what the teacher-helpers did and to try out the different equipment whenever the latter were around. She added that lately she has not been getting teacher-helpers to help out and she noticed that nursery children were less inclined to try the equipment.

Frances added that opportunities to spend time with the older children in the gym room had helped nursery children like Jenny to shoot ahead in their movement abilities over the past few months. In her view, children like Jenny, who attended the centre all day, got these opportunities to observe and interact during morning gym time as well as at the end of the day when the preschool and nursery children played together in the gym room. She believed that if we did not set up these opportunities for interaction during the nursery's gym time in the morning, the children who attended only the morning sessions would miss out. She was eager to work towards providing these opportunities more consistently for these children.

She pointed out that the value she got from the practice of getting older children to help in the gym room was quite different from her original idea. She had initially thought that the older children would play a leadership role in helping the younger ones in their exploratory play and in teacher-directed activities such as lycra and parachute.

When I spoke to Meeka about her views on the teacher-helper scheme in December 2005, she said that she felt the practice worked really well at the start. However, she added that she had not been having the older children as teacher-helpers because she felt that they seemed to have forgotten that they were there to help out. She thought that the idea of being a teacher-helper had perhaps lost its initial special meaning for the children, so that they were treating this time as another gym time- a time for playing in the gym room among themselves. She felt that, although the idea had potential benefits for children and teachers, it was becoming too much trouble for her to have them there because it meant having extra children to look after.

Meeka also asked if we were still implementing the idea. I said that many of the children who were initially involved in the scheme had left to go to school, that we would continue to lose others over time, and that we had not really trained others to take their place.

Creating an argument for making the teacher-helper scheme sustainable

After talking to Frances and Meeka, I reflected briefly on what I thought we needed to do to make the scheme sustainable. I wrote in my e-journal on 13th December 2005 and in the story

Playing with the gym roster:

“I guess for this scheme to work, there needs to be continual monitoring of how it is going and regular induction of new helpers so that it keeps itself going. This is especially so in the initial stages until some sort of self-organisation takes place and the practice becomes entrenched into our centre culture and develops a life of its own. Next year, I think I will bring this up with the teachers and see if they want to resurrect this and how we can do this.

This natural dying-out resonates with what Fullan (2003) says- that it is one thing to have an

idea, it is another thing to make it work. We have thought about the ‘what’ but didn’t put much thought into the ‘how’. In other words, we started trying to put the idea into practice but didn’t nurture it to the point where it takes a life of its own. But all is not lost. We have gained some insight into its potential and why it didn’t work.”

Looking back, I see this entry as a catalyst that spurred me to change my interim movement story, *Playing with the gym roster*, from one that described change to one that included an intention to create further change. I did this by ending the story with critical reflections that focused on the multiple value of the scheme, my analyses of the issues and tensions associated with how we had implemented it and my ideas on we could possible nurture it so that it could become a sustainable practice. I argued that if we believed this practice to be worth developing and nurturing into a sustainable practice, we should subject it to what Hargreaves (1999, p.231) calls a process of institutional knowledge-creation that is “more systematic, more collective *and explicitly managed*” than individual teacher’s tinkering with ideas. I compared Hargreaves’ (Ibid) knowledge-creation process with Garmston and Wellman’s (1999) framework for creating ideas and managing actions, and suggested that we had generated a good idea, created a plan for converting the idea into action and implemented the plan. However, we had not clarified our commitment and responsibilities to the idea and plan, and had not worked out a plan for systematically monitoring and evaluating the scheme. This lack of clarification and systematic monitoring and evaluation had led to the natural death of the scheme in its original form.

I distributed the story *Playing with our gym roster* to the teachers on 11th January 2006, and on 30th January 2006, during our sixth professional development meeting, we agreed that we would work towards making the teacher-helper scheme sustainable³.

Planning and implementing the scheme

On 6th March 2006, we focused our professional development meeting on discussing our plan to make the teacher-helper scheme sustainable. The meeting involved both nursery and preschool

teachers, with Frances, Meeka and Manu representing the nursery and Little Ted, Bronwyn, Angela and I representing the preschool. Humpty had left the centre, Titanya could not attend the meeting and Jemima was still away on maternity leave. Rosemary and Kerry had not yet joined the team at that time.

As the meeting unfolded, I became aware that much of the discussion we had revolved around foreseeing and resolving value tensions in implementing the scheme⁴. For example, Little Ted brought up the idea of giving every preschool child the opportunity to be a teacher-helper. The teachers agreed with the value of this idea but many also realised that there were some children who were not ready to handle the responsibilities of being a teacher-helper. The nursery teachers pointed out that having these children in the gym room as teacher-helpers could possibly give the nursery teachers added stress in the gym room. This, in turn, could eventually compromise one of the intended purposes of the teacher-helper scheme as providing support for the nursery teachers in the gym room. Manu, a nursery teacher, described a hypothetical scenario whereby a nursery teacher had to spend considerable time and energy helping a teacher-helper who needed help in the gym room. She was quick to point out that she was not against children learning through exploration or asking for help but questioned if the nursery gym time was the appropriate time for the preschool children to be doing so. In this scenario, the nursery teacher would have to closely supervise not only the nursery children, but also the teacher-helpers, a situation that reminded me of what Meeka said during our conversation in December 2005 (above, p.307). In my view, this discussion highlighted the tension between the value of giving every child the opportunity to be a teacher-helper and the value of ensuring that the teacher-helpers could be relied upon to handle the responsibilities of the teacher-helper role. The former would predominantly serve the interest of the preschool children while the latter those of the teachers implementing the scheme. We eventually synergised these tensions so that both parties' interests could be served. This came in the form of multiple implementation strategies that I articulated in a draft plan of the scheme⁵.

One of these strategies involved creating a list of teacher-helpers and classifying them into three groups that reflected the teachers' collective perceptions of the preschool children's readiness to handle the responsibilities of being teacher-helpers. We called the groups the *experienced helpers*, the *helpers-in-training* and the *not-yet-ready-to-be-helpers* group. We organised the children into the three groups taking into account the children's age, their experience with the centre's culture (which we assumed correlated roughly with how long they had been at the centre) and the teachers' perception of their disposition for taking responsibility. We also decided that we would review the teacher-helper list every three months so that every child would eventually have the opportunity to be a teacher-helper.

I created the draft plan two days after the meeting so that Angela, who had agreed to be the teacher-cordinator but had to leave before the meeting ended, could get a grasp of the discussions that took place after she left. In the draft plan, I included a statement of purpose of the teacher-helper scheme, how we would implement the teacher-helper scheme, how we would monitor and evaluate it, what the roles and responsibilities of the teachers directly and indirectly involved in the scheme, and what some of the issues were that could possibly arise as we implemented it. It is beyond the scope of this thesis to reproduce the draft plan, but I reproduce what I wrote about how the scheme would look like on a day-to-day basis from the teachers' points of view:

“During the preschool morning kai, Angela, the teacher-helper co-ordinator, will select two children to be the teacher-helpers for the day. As a rule of thumb, she will select one experienced helper and one helper-in-training. She will then ask these children whether they are interested to be teacher-helpers, and if they are, she will remind them of their role as teacher-helpers and direct them to the nursery teacher(s) in the gym room after they have finished their kai.

In the gym room, the nursery teacher(s) will welcome the teacher-helpers and, if necessary, reinforce the rules and the reasons the children are there. It is likely that the teacher-helpers

will arrive during the nursery children's choice time. Later, when the nursery has their teacher's choice activity, and the teacher-helpers are expected to participate in the activity with the teachers."

I disseminated the draft to the teachers for amendments but nobody made any.

After the planning meeting, Angela set about getting the necessary tools ready for implementing the teacher-helper scheme. This included typing out the list of teacher-helpers and finding what we eventually called the teacher-helper box to store the list, Angela's notebook and stationery⁶. On Tuesday, 14th March 2006, we tried the teacher-helper scheme in its new form for the first time. Meeka wrote a movement story describing her experiences on that first day, which I reproduce below.

Kicking around

Observed by Meeka

14th of March 2006

Today we started the 'Teacher helper' programme in the gym. This means that during the second half of the Nursery's gym time we have two older children come in to help the teacher. It is an opportunity for the Nursery children to observe the older children doing activities and things on the equipment that they may not have been considered before.

The month's programme focus is on ball skills so I thought an appropriate activity for today would be kicking bean bags. I choose bean bags rather than balls because they are stationary objects and won't roll away. I asked Tony and Merry (the two older children) if they could show the Nursery children how to kick them. So the three of us set off kicking the bean bags around the mat. I encouraged the Nursery children to get involved by drawing attention to what Tony and Merry were doing. They thought it was neat and soon all of the children had joined in kicking the bean bags.

Monty, Barry and Maximillian were able to balance on one foot and kick the bean bag a little way with their other foot. This shows that they have increasing hand-eye coordination and balance.

Ellen was very interested so came over to give it a go. She found a bean bag and put both her feet right next to it. I believe this is the first time she has observed the idea of kicking. With more observation of the others she will see that she can lift one foot and kick the ball to move it.

Tony and Merry listened to my instructions and were a great deal of help during this activity. Without them I don't believe the Nursery children would have understood the activity that was being offered to them.

The Nursery children were able to learn 'about' movement by observing Tony and Merry kicking the bean bags. The Nursery children were then able to gain new knowledge about how to kick by studying how to do it. Then they began to participate in kicking and began to learn 'in' and 'through' the movement (Arnold, 1979).

The Nursery children have shown that they have learning dispositions known as 'Taking an Interest' as it has motivated them all to get involved in this activity.

The Nursery children are developing 'increasing control over their bodies, including development of ... coordination and balance' (Te Whárika, p.86).

By being a teacher helper Tony and Merry are developing 'a sense of responsibility and respect for the needs and well-being of the group' (Te Whárika, p.70).

What Next? As today was the first day of the teacher helper programme I would recommend that it continues. It was a positive and enjoyable experience for all and obviously benefited both the Nursery children and Tony and Merry.

Monitoring and evaluating the scheme

During our meeting, we had decided that Angela, the teacher-helper co-ordinator, and the nursery teachers would be responsible for monitoring the scheme and modifying it if necessary⁷. We agreed on the monitoring process using notebooks to collect certain data⁸, and in June 2006, Angela, in her role as teacher-coordinator, had this to say about the notebooks in her evaluation of the scheme⁹:

“The notebook for the preschool children is ongoing and each day we write in the notebook the day, the date, which nursery teachers were in the gym and the preschool teacher-helpers. At times, we ask the preschool children about what they did in the gym room with the nursery children and we are able to record this in the notebook. The notebook for the nursery teachers started off really well and soon died off. I think both notebooks are a big help when looking at how the teacher-helper scheme is working out and with the comments in the book helps the preschool teachers work out the children that are really working well and the children that are not working well, as well as what activities they did in the gym room.”

Angela's evaluation of the scheme

In June 2006, just as we were ending our learning journeys, Angela undertook her own evaluation of the teacher-helper scheme and produced her own report of the scheme. She produced her report after talking to the nursery teachers, taking some photographs and analysing the notebooks that were used to monitor the scheme. In her report, she wrote of the value of the scheme and some of the on-going issues with it. I reproduce the relevant parts of her report below¹⁰:

“I feel that implementing the teacher-helper scheme has helped the teachers as well as both the younger and older children in the nursery and the preschool. I have talked to the nursery teachers about how they feel it has been working, and Frances has said that she thinks it's fantastic at time for the preschool children to show the nursery children things that she cannot. She also commented that when there is only one teacher in the gym with the nursery children

and when the teacher-helper comes in to help, it is harder for her to watch both the teacher-helpers and the nursery children. We may need to decide whether we put a teacher-helper in the gym when there is only one nursery teacher taking gym time. I feel that the nursery time in the gym room with the teacher-helper is helping them develop physical and cognitive skills from watching them and trying for themselves. I feel that this system has been working very well with the preschool children enjoying going into the gym room with the nursery children. The nursery children are benefiting from the role modelling of the preschool children's actions, and getting to know the children before they transition to the preschool can help them in knowing familiar faces. A lot of the time when you ask a child to be teacher-helper, some of the other children ask to be teacher-helper as well. I found that by showing the children the name sheet and telling them that you are going to give this child a turn today because they had not had a turn for a while helped them understand why you were choosing that child. I have found some of the children have worked well in the gym but others have not. This was to be expected as we were trialling the children that we selected and a further review on the children from this can help us decide where each child should be."

Reviewing the teacher-helper scheme

During our meeting in March 2006, the teachers had decided that Angela, the nursery teachers and I would review the scheme in April 2006 and again in June 2006. We held our first review meeting on 10th April 2006 and the second, on 12th June 2006, a few days before we ended our professional development. In my analysis of these meetings¹¹, which included listening to the audio-recordings of the meetings, I classified our conversations into the following themes:

- Value and benefits of the scheme
- Implementation issues
- Improvements to the scheme

- Anticipated future issues

It seems to me that both Angela's evaluation and the teachers' review meetings were similar in the sense that they both included a focus on the value of the scheme as well as implementation issues. However, upon reflection, I suggest that they were different in the sense that Angela's evaluation included references to the data from the notebook whereas our review meetings appeared to deal with teachers' experiences with the scheme. In other words, while the former included recorded data, the latter was based more on tacit, experiential knowledge.

Teachers' movement stories as stories of value

On 26th April 2006, about five weeks after we re-started the teacher-helper scheme, Frances wrote a movement story about how she observed a nursery child, Monty, observing what a teacher-helper, Jessie, was doing on the equipment and copied the older child's actions. I reproduce Frances' story below, but include a photograph of the gym room set-up to help the reader visualise the children's movement activities. Although this was a story about a nursery child's learning, it highlighted the value of the scheme for Monty, and can perhaps be viewed as part of the evaluation process.

Learning story about Monty 26th April 2006



Observe:

The preschool have started a new scheme where we have two children from the preschool come in and work alongside the nursery children in the gym. This scheme is two-fold: it helps the nursery children get to know the older children and helps the older children to learn to respect the younger children. I generally ask the older children to demonstrate to the younger children what they can do on the various pieces of equipment.

The nursery children were in the gym room having free play, I had asked Jessie an older child to demonstrate what she could do on a certain series of equipment. Jessie did as I asked and went over the bridges, up the tall ladder and swung on the bar, finishing off with jumping down on to the mat. Straight away Monty followed her, she walked over the bridges, up the tall ladder, stretched over to the bar and swung off. She swung for a couple of minutes before jumping down to the ground. I asked Jessie to repeat the series of activities and again Monty followed and did all the same actions.

Recognise:

Monty has developed observation skills, she is able to observe and then follow through with the actions she sees. This is a form of scaffolding that we like to encourage. This also shows that Monty has increasing control of her body, she is becoming very coordinate and able to move in space with confidence and has time and space to practice these skills.

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 initiating, maintaining, and enjoying a relationship with other children- including taking turns and negotiating. Pg 70.

Respond:

The trial of the older children coming into the nursery gym time has been very successful. We will continue with this scheme as it is helping develop reciprocal relationships with the older and younger children as well as developing the scaffolding of older children repeating an action several times for the younger children to observe.

On 5th April 2006, Angela and I accidentally stumbled upon the idea of recording the teacher-helper's comments about what they did in the gym room¹². We talked about this and decided to continue recording their comments in Angela's notebook whenever we could¹³. Later, I analysed

the comments and wrote an analysis around the comments made by four of the teacher-helpers¹⁴. Elijah, a four-year old boy, was one of them. Elijah attended the centre four full-days a week and had been at FUNdamentals for several years by the time we introduced the teacher-helper scheme. The teachers considered him to be an experienced teacher-helper at the start of the scheme. Between March and June 2006, Elijah was a teacher-helper on six different occasions and he made comments about what he did in the gym room on four of those occasions.

Monday, 3rd April 2006

Elijah was in the gym room with Merry. Frances was the nursery teacher in the gym that day.

Elijah's comments after helping Frances in the gym room.

Hanin: What did you do?

Elijah: I was teaching the babies to throw beanbags.



The gym room set-up for the fortnight including 3rd and 6th April 2006

Thursday, 6th April 2006

Elijah was a teacher-helper together with Callum. Rosemary and Angela were the nursery-teachers in the gym room. According to the teachers, the activities they did in the gym room included throw beanbags into a bucket, singing action songs and jumping.



The gym room set-up for the fortnight including 1st and 3rd May 2006

Elijah: Did big jumping, and all sorts of things.

Monday, 1st May 2006

Elijah was in the gym room with another teacher-helper, Sonny. Rosemary and Manu were the

teachers in the gym room with seven nursery children.

Elijah: Help teach the babies how to go on the climbing frames.

Wednesday, 3rd May 2006

Elijah was a teacher-helper with Alison. It is not known who the nursery teacher was.

Elijah: Teach them to how to go on the equipment. Through the tunnel and under.

Did the lion hunt with instrument.

What did the story mean to me as a teacher? Firstly, his comments suggested to me that Elijah engaged in the activities with the nursery children and was able to talk about it. Secondly, I noticed that Elijah used the word ‘teach’ in three of the four times he spoke of what he did in the gym room. It suggested to me that he knew what his role was as a teacher-helper and was able to articulate that role verbally. In other words, in addition developing the dispositions of ‘taking responsibility’ and ‘taking initiative’, Elijah was able to communicate that sense of responsibility to Angela or I when we asked him what he did in the gym room with the nursery children. To me, his comments exemplified the inextricable mix of tangible and intangible value of the scheme for the teacher-helpers. Using the language of Te Whāriki (Ministry of Education, 1996), Elijah’s participation as a teacher-helper can be viewed as an experience that provides him with opportunities to learn with and alongside others (p.64), develop verbal communication for a range of purposes (p.72), gain confidence in and control of his body, and develop working theories for making sense of the natural, social, physical, and material worlds (p.82). From Arnold’s (1979) perspective, Elijah’s comments suggest that in his role as a teacher-helper, he is learning in, through and about movement.

Integrating the evaluation process as part of the centre’s review process

At the end of April 2006¹⁵, as we were approaching the end of our SPARC-funded learning journeys, I mentioned to Little Ted that I wanted to fully integrate the teacher-helper scheme into

normal centre life as part of my idea of easing the professional development into normal centre processes. I mentioned the idea of incorporating the evaluation of the teacher-helper scheme into the usual internal review process. On 17th June 2006, I spoke to Little Ted again, and wrote of our conversation in my e-journal¹⁶,

“I told Little Ted that I’d like the teacher-helper scheme to be added to the list of core curriculum areas to be reviewed. She said that was fine and asked how often I wanted to do it. I suggested the next two reviews to be in September and December this year The subsequent reviews could then be every six months. She agreed with the idea.”

However, I added a note of caution in my entry,

“There is no list, at the moment, to remind teachers to review the list of teacher-helpers every three months as we had agreed. But I think that can be done together with the review of children for the older and younger children’s groups. That was what we did during the staff meeting on Monday, 12th June 2006, and having the two lists done at the same time makes it easier to remember. The only thing is to ensure that we remember to review the list every three months since we haven’t written any schedule [to review the list].”

Epilogue: Reflections of the past and for the future

The teacher-helper scheme is still in place as I write this story. It has survived its first six months in its new form, and I wonder how long it will continue to survive as our Active Movement community of practice continues to change and evolve. I return my thoughts to my e-journal entry on 13th December 2005 (above, p.307), the entry that had spurred me to push for this scheme in the first place, and to the argument I created to start the process (above, p.308). My personal feelings are that we have thought out the scheme well this second time round, resolving many of the issues that plagued us the first time. Our planning for the scheme had involved the processes of clarifying commitment and responsibilities and of systematic monitoring and evaluation (Garmston and Wellman, 1999) that I had viewed as part of a process

of institutional knowledge-creation (Hargreaves, 2000). However, as Angela, Frances and I uncovered, issues will always continue to emerge, given that the scheme is embedded in other aspects of centre life that compete with it for teachers' time and attention. Below are some of the emergent issues that I believe we will have to deal with in the future. I have articulated them as questions for teachers to ponder upon, or at the very least, be aware of.

1. What are the limitations of concentrating the role of the teacher-helper co-ordinator on one person, in this case, Angela? What has been the impact on this role when she is away on morning breaks and non-contact at the time (as has happened several times¹⁷) when she is usually working out who the teacher-helpers are? Are there ways of distributing the role among more teachers? What are the implications of distributing the role?
2. The process of continual induction of new teacher-helpers takes place in the form of reviewing the list of teacher-helpers every three months and giving children the opportunity to experience what it is like to be a teacher-helper¹⁸. However, unlike the internal review of core curriculum areas, there is no schedule to remind us of when this particular review process is to be carried out. In other words, the review of the list of teacher-helpers will only take place when one or more teachers remember that it is due. Is there a danger that this practice can be forgotten when teachers who have taken it upon themselves to remember this leave the centre? What can be done to prevent this outcome if we value the scheme enough to prevent this from happening?

My knowledge of and past experiences with complexity theory tells me that emergent issues and problems are characteristics of a complex reality. This idea resonates with my understanding of what Fullan (1999, p.23) calls living at the edge of chaos which he describes as "getting used to some degree of uncertainty". According to Fullan (1999, p.24), life at the edge of chaos has "both structure and openendedness". Perhaps, if we view emergent issues and problems as the uncertainty in openendedness, then our practice is the structure that exists in the form of our

“moral purpose, a small number of key priorities and a focus on knowledge and data arising from shared problem-solving and assessment of results” (p. 24). Consequently, I do not view emergent issues and problems with fear or loathing, but as opportunities for further learning for teachers and the centre.

Looking even further back to the beginning of this story, no one could have predicted that the teacher-helper scheme would have emerged from the change we made to our gym roster. Had I not been doing my research and following the unfolding events and activities that make up the story, I might not have remembered or realised that there was a connection between the two practices. An idea to change the gym roster, the preschool teachers’ first professional development activity, an evaluation meeting, Frances’ articulation of a problem, the generation and trialing of an idea to help the nursery teachers, the death of that idea, the resurrection and re-trial of the idea in a different form. These different but connecting activities and events involved different teachers who sometimes acted individually and sometimes in a group. I am not suggesting that these were purely accidents that somehow came together into something meaningful. Perhaps these actions by individuals and groups suggest what Petroski (1992, p.4) calls, in his story of *How the fork got its tines*, an interplay between discovery and intention. An idea is discovered and one or more teachers decide to work on the idea, which generates more ideas or insights, some of which are further acted upon by the same or other teachers and the chain of actions and events continues. Furthermore, when this interplay between discovery and intention is linked to creating value for children, teachers and the centre, as it did in this story, perhaps we can view this interplay as Fullan’s (2001, Chapter 6) intellectual, political and spiritual fusion or the interplay between ideas, actions and moral purpose.

I also see a common thread that binds these events, activities and actors together, and that is the value of support that the teachers believe underpin our practice at the centre. In my view, both the new gym roster and the teacher-helper scheme were created as a means to support teachers’ practice, and perhaps it is this articulated value that illuminates the path of my preferred future.

Our practices may evolve to adapt to existing conditions and may change beyond recognition, but perhaps it is the value of support that teachers get from each other that can bind the teachers together as a community of practice.

Endnotes

¹ The part of the story from p.1 to p.10 is a shortened version of the interim movement story *Change lessons: Playing with our gym roster*, which I completed in January 2006. All data sources for this part of the story can be found in the movement story's endnote.

² Source data: <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\movement stories\ppda1-monitoring and evaluating new gym roster\conversation with Kate 130405.doc>, <C:\Documents and Settings\Hanin Hussain\My Documents\AMPD\movement stories\completed stories\conversation with Jemima 130405.doc>

³ Refer to MC6sideB0:00-1:00 for agreement during PDMtg6.

⁴ Refer to MC5sideA10:00-46:30 and MC5sideB0:00-26:30 for audiorecording of PDMtg7 and Hanin's Scraps 4/280606/Listening to audiorecording of PDMtg7 for analysis of audiorecording.

⁵ See <..\..\professional development in AM\professional development activities\teacher-helper scheme\PDMtg7\draft of teacher-helper scheme.doc> and analysis document <..\..\movement stories\moving towards sustainable practice\part 2A\giving every child the opportunity to be a teacher-helper.doc>.

⁶ See e-journal entry 9th March 2006/Teacher-helper scheme in <..\..\e-journal\9th March 2006.doc>.

⁷ See <..\..\professional development in AM\professional development activities\teacher-helper scheme\PDMtg7\draft of teacher-helper scheme.doc> and refer to Hanin's Scraps 4/280606/Listening to audiorecording of PDMtg7 for analysis of audiorecording.

⁸ As in item 6.

⁹ Refer to Angela's write-up entitled Professional Development-Teacher-helper sheme.

¹⁰ As in item 8.

¹¹ Data sources: e-journal entry 11th April 2006/9th professional development meeting (<..\..\e-journal\11th April 2006.doc>), DD/100406/2, DD/100406/3, MC6side A33:12-46:35 and MC6sideB);)-14:52 for audiorecording of first review meeting and Hanin's Scraps 3/120606/Notes recorded of review of teacher-helper scheme. For analysis of review meetings, see Hanin's Scraps 4/290606/1st review meeting of teacher-helper scheme, Hanin's Scraps 4/290606/Possible themes around which to organise discussions, <..\..\movement stories\moving towards sustainable practice\part 2\first review meeting for teacher-helper scheme data analysed from recording.doc> and <..\..\movement stories\moving towards sustainable practice\part 2\Reviewing the teacher-helper scheme.doc>.

¹² See e-journal 5th April 2006/Teacher-helper scheme in <..\..\e-journal\5th April 2006.doc>.

¹³ See <..\..\professional development in AM\professional development activities\teacher-helper scheme\children's responses to their roles as teacher-helper.doc> and DD/120606/2 for children's comments on being teacher-helpers

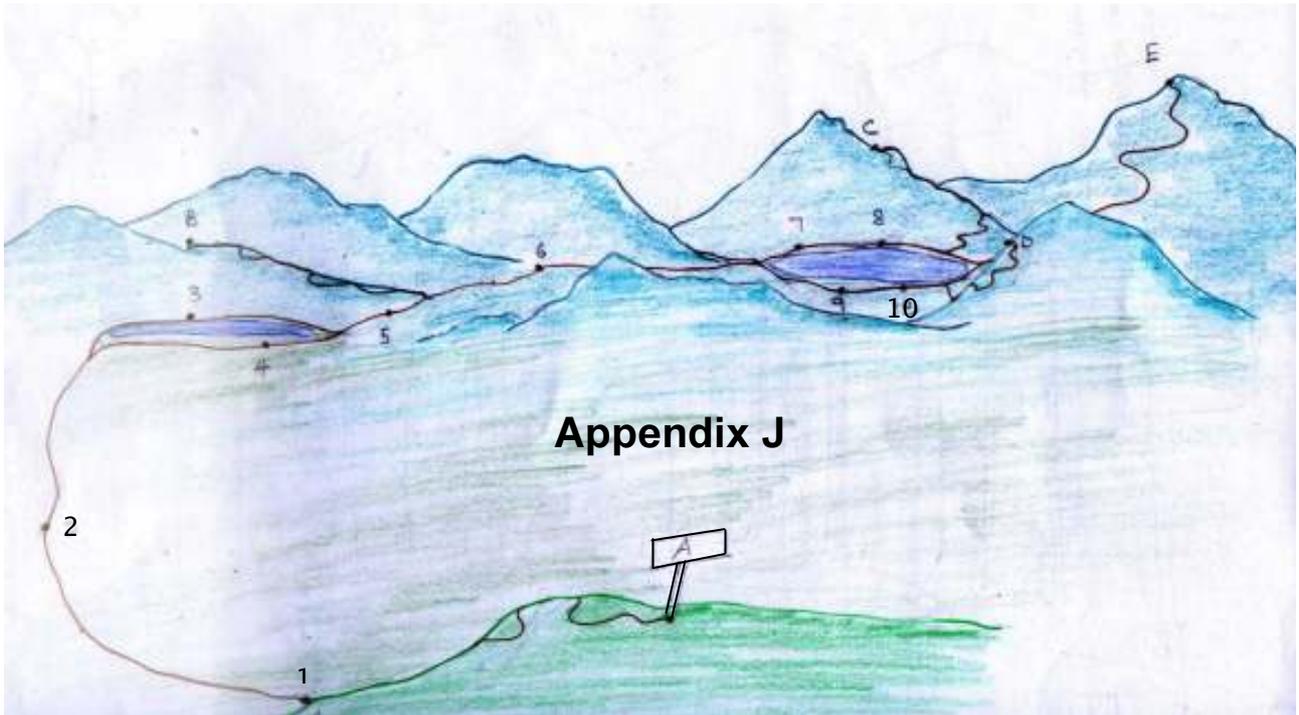
¹⁴ See Hanin's Scraps 4/220606/Analysing and synthesising children's responses, <..\..\professional development in AM\professional development activities\teacher-helper scheme\Children's stories.doc>, <..\..\professional development in AM\professional development activities\teacher-helper scheme\Children's stories v2.doc> and <..\..\professional development in AM\professional development activities\teacher-helper scheme\Children's stories v2-1.doc>

¹⁵ See e-journal 30th April 2006/Conversation with Little Ted (<..\..\e-journal\30th April 2006.doc>)

¹⁶ See e-journal 17th June 2006/Teacher-helper scheme (<..\..\e-journal\17th June 2006.doc>)

¹⁷ See e-journal 26th April 2006/Teacher-helper scheme (<..\..\e-journal\26th April 2006.doc>).

¹⁸ See document <..\..\movement stories\moving towards sustainable practice\part 2A\giving every child the opportunity to be a teacher-helper.doc> for my analysis of the issue.



Draft plan of the teacher-helper scheme

[1] Introduction

On 6th March 2006, the teachers discussed the teacher-helper scheme that we want to implement as part of our Active Movement programme. Below are the topics we discussed:

- Purpose
- Structure of nursery gym time
- How to implement the scheme
- How to monitor and evaluate the scheme
- Roles and responsibilities
- Issues related to the scheme

The decisions articulated below represent collective decisions made by the teachers who were present. The only exceptions are the texts in *italics*, which I have added because we forgot to discuss these points. Please read and make any changes or corrections before I print a final copy for everyone.

[2] Purpose

The purposes of the teacher-helper scheme are:

- To provide support for the nursery teachers in the gym room during morning gym time,
- To give the preschool children the opportunity to be responsible helpers and interact with the nursery children in a positive way,

- To give the nursery children opportunities to observe, interact with and learn from the teacher-helpers playing in the gym room and participating in teacher's choice activities during gym time,

[3] Structure of nursery gym time

The nursery teachers have decided on the following structure for their gym time:

- Beginning routine
- Children's choice
- Teachers' choice

[4] How to implement the scheme

This is how the scheme will look like on a day-to-day basis:

During the preschool morning kai, Angela, the teacher-helper co-ordinator, will select two children to be the teacher-helpers for the day. As a rule of thumb, she will select one experienced helper and one helper-in-training. She will then ask these children whether they are interested to be the teacher-helpers, and if they are, she will remind them of their role as teacher-helpers and direct them to the nursery teacher(s) in the gym room after they have finished their kai.

In the gym room, the nursery teacher(s) will welcome the teacher-helpers and, if necessary, reinforce the rules and the reasons the children are there. It is likely that the teacher-helpers will arrive during the nursery children's choice time. The teacher(s) will ask the teacher-helpers to model playing with the set-up in the gym room. Later, when the nursery has their teachers' choice activity, and the teacher-helpers are expected to participate in the activity with the teachers.

At the end of gym time, the nursery teacher will thank the teacher-helpers for their contribution to the gym session, and return them to the preschool.

The above is the simplest form of implementation that we will start with. Later, when the scheme is running smoothly, we may introduce other aspects to the scheme. One of the suggestions was to create a 'helpers of the day'. As part of this chart, the teacher-helpers will choose their names and put them on the chart for everyone to see. Another suggestion is to display the list of teacher-helpers and give the teacher-helper a star to put against their name after helping.

[5] How to monitor and evaluate the scheme

The nursery teachers and Angela will be responsible for monitoring and evaluating the scheme.

The nursery teachers have decided to combine the monitoring of the scheme with the monitoring of their gym programme for the nursery. This is how the nursery teachers will monitor and evaluate the scheme and their programme:

The nursery teachers will keep a common 3B1 notebook in which they will record the following every day:

- The date.
- Who the teacher-helpers were.
- Who the nursery gym teacher(s) was(were).
- How many nursery children were in the gym room during gym time.
- What the structured activity was and how it went.
- Any observations and comments worth noting. These may include observations and notes on how the scheme is benefiting the teachers, teacher-helpers and nursery children during gym time as well as what problems and issues emerging that may need to be resolved.
- The nursery teachers will ensure that the notebook is accessible to all nursery teachers and used specifically for these purposes.

Angela will keep a separate 3B1 notebook in which she will record the following:

- *Who the teacher-helpers for the day were.*
- *Problems and issues with process of selecting teacher-helpers.*

- *Any suggested or implemented solutions to problems.*

We plan to start implementing the teacher-helper scheme on 13th March 2006. As a start, the nursery teachers and Angela will meet every month over the next three months to evaluate the data they have collected as well as evaluate the use of the notebook as a tool for collecting the data for evaluation. *Tentatively, the first evaluation meeting will be held on 10th April 2006.* After each meeting, they will share their evaluation with the other teachers.

[6] Roles and responsibilities

The following are the roles and responsibilities of the various people directly and indirectly involved in the scheme:

1. The teacher-helper coordinator, Angela

Angela is responsible for the following tasks before the scheme begins:

- To draw up an initial list of preschool children who can be given the opportunity to be teacher-helpers. This list will classify the children under three categories in terms of their readiness to be responsible teacher-helpers. The categories are ‘experienced helpers’, ‘helpers in training’, and ‘not yet ready to be helpers’, and the criteria used to classify the children under these categories are their readiness to handle the responsibilities of being a teacher-helper, the length of time and experience at FUNdamentals and their age. The list will be reviewed every three months so that all children will eventually have the opportunity to be teacher-helpers. The list drawn up will also include an indication of the days that the children will be at preschool to ease the day-to-day selection process, as well as allow for changes in the days the children come to preschool.

- To draw up a list of rules for the teacher-helpers to be put up in the gym room so that the nursery teachers can refer to these during gym time. The list has been selected from the initial list of 19 rules that the extension group children created during the trial phase of this scheme. The three items on the list represent non-negotiable rules for the teacher-helpers:
 - Listen to the nursery teachers.
 - Join in the gym time with the babies.
 - No picking up the babies.

Angela is also responsible for the following tasks on a day-to-day basis:

- Selecting the pair of children who will be teacher-helpers for the day. She will select one child from the ‘experienced helper’ category and one from the ‘helpers in training’ category. As part of the selection process, she will liaise with the lead teachers for group and gym times as to assess who are or are not suitable to be teacher-helpers for that day and ask the children if they want to be the teacher-helpers for the day.
- Reinforce the role of the teacher-helpers as someone who is both playing in the gym room and helping out, and what the expectation/rules are. She will need to use her judgement to decide whether to remind the teacher-helper of these every day because although the children will need regular reminders, we don’t really want to be over-reminding the children.
- Communicating with the nursery teachers about any observations and issues that they may need to be aware of.

Angela is responsible for monitoring the following aspects of the scheme:

- Updating the list of teacher-helpers to ensure that she is able to make changes to the days the children in the scheme are at preschool.
- Monitoring the process of selecting the children on a day-to-day basis. Is it simple enough? Too complicated? Too stressful? Is there a need to simplify the process? If so, how?
- Ensuring that all children have the opportunity to be teacher-helpers by addressing the questions ‘How can I roster the children so that everyone on the list will eventually get a turn?’ and ‘How can I monitor the way I roster the children to ensure that this is happening?’
- Recording any observations, issues, pluses and minuses related to the above.

2. The nursery teachers

The nursery teachers are responsible for the following aspects of the teacher-helper scheme on a day-to-day basis:

- Planning and conducting teacher’s choice activity for the nursery children.
- Instructing the teacher-helpers on what and how they would like them to help.
- Reinforcing and enforcing the rules of the teacher-helper scheme and reminding the teacher-helpers for the reason they are in the gym room.
- Thanking the teacher-helpers and directing them back to the preschool at the end of gym time.
- Communicating with Angela about any observations and issues that she may need to be aware of.

The nursery teachers are also responsible for monitoring the following aspects of the scheme:

- Record how the scheme is benefiting the teachers, teacher-helpers and nursery children during gym time.
- Record what problems and issues emerge that need to be resolved.

3. The preschool teachers

The preschool teachers are responsible for the following tasks on a day-to-day basis:

- Reminding the children during group and gym times of the opportunity to be teacher-helpers and what is expected of them during group and gym times, e.g., listening to teachers and participating in activities.
- Informing Angela of the children who have and have not been listening and responsive during gym and group times.

4. All teachers

All teachers are responsible for the following aspects of the scheme:

- *Reviewing the list of teacher-helpers every three months. It is expected that this task will be carried out as part of staff meeting.*
- *Support each other in the tasks related to the scheme.*

[7] Issues related to the scheme

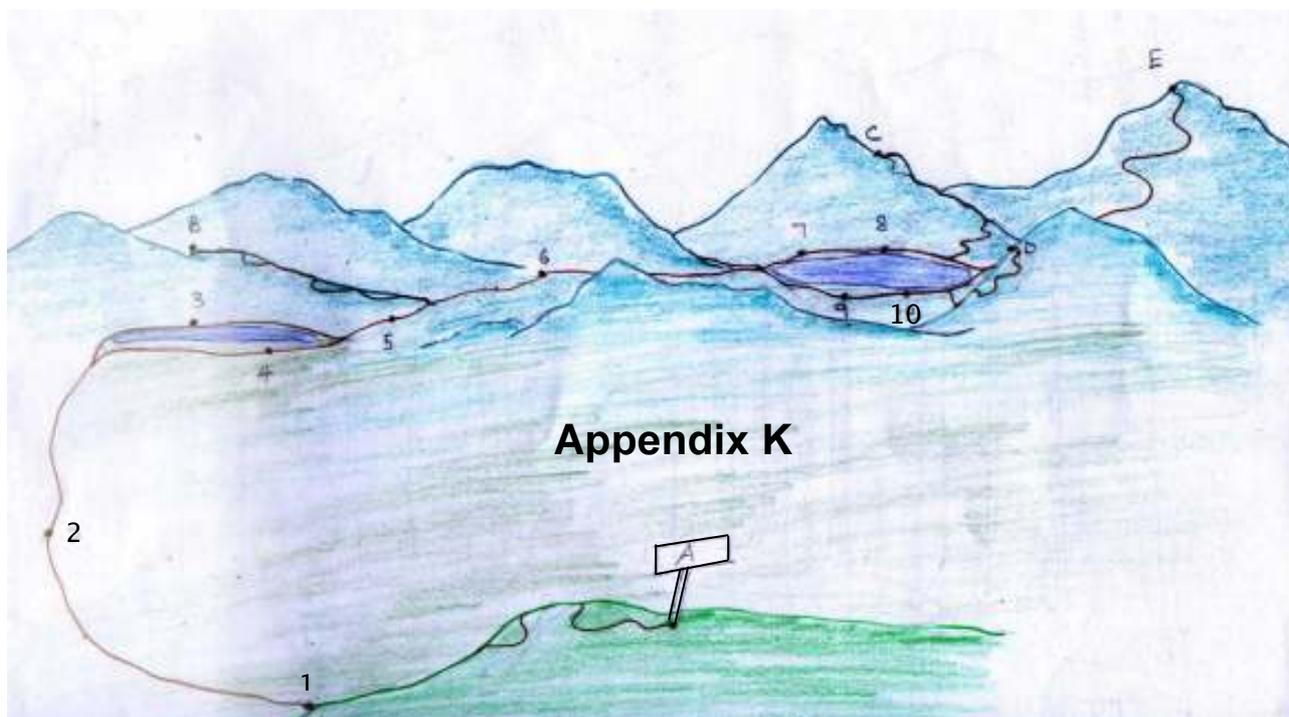
- One of the lessons we learnt from our monitoring of the preschool gym roster was that it was really hard to be diligent with collecting the data we decided to collect as part of the monitoring process. We were diligently recording the data in the first two weeks, but after

that, we started missing out on recording the data. How can we ensure that we have sufficient and relevant data for us to be able to make a judgement about how well or otherwise the scheme is being implemented?

- There is an inherent tension in selecting children who are responsible and can live up to the expectations of being teacher-helpers and giving all children the opportunities to be teacher-helpers. While having children who can live up to teachers' expectations is important to achieve the purposes of the scheme, we also recognise the need to give all children the opportunity to be teacher-helpers if they wish to. We have tried to balance the tension in several ways. Firstly, we will give all the preschool children the opportunity to interact with the nursery children in the gym room during free play. Such opportunities can be viewed as 'informal training' to be responsible teacher-helpers. Secondly, we will review and update the teacher-helper list every three months so that all children can eventually have the opportunity to be teacher-helpers if they stay at FUNdamentals long enough.

Hanin

8th March 2006



Information letters and consent forms



Information letter to teachers

7th January 2005

Dear _____,

As you are aware, I will be doing my research thesis that is related to the professional development in Active Movement that we will be doing together at FUNdamentals Preschool. My thesis will focus on evaluating the professional development in terms of how it impacts on us, individually and collectively. The title of the research is *Learning journeys in Active Movement: A case study of professional development in Active Movement*.

How will the research affect you?

To do the research, I will participate in the professional development, as well as observe and record meetings, activities, events and experiences related to the professional development and informally talk to you about your thoughts, reflections and perceptions. At times, I will record these using a video camera or a tape recorder. I will also be accessing the video recordings, photographs, documents (including movement stories) and notes we use and/or create as part of the professional development. The data that I collect can be used for professional development, research and/or assessing children's learning. I anticipate that the data collection for the research will take place over a period of 12 months.

I will be learning to use a video camera before starting the professional development and research. You are welcome to join me in this learning, which will be incorporated into life at the center. Any video data that I record while learning to use the video camera before I have received ethical approval for my research will not be used for the professional development or research unless you have agreed to it.

What will confidentiality be addressed?

Some of you have indicated that you wish to keep your names in the research to have ownership of the stories associated with your learning journeys. I wish to inform you that having your real names published in the thesis or any publication that may arise from this research may result in a loss of privacy for yourself and your family.

You are also welcome to choose a pseudonym to protect your identity. In such a case, I assure you that your identity will remain confidential during all stages of this research. I will also protect your identity in any publications and presentations that may result from this research.

In both cases, I assure you that any confidential information that you give me will be kept confidential. Furthermore, I will give you the opportunity to view, comment on and change any stories I write about you during all stages of the research. I will also ask you if you wish to share these stories with others, and I will respect your decision. Any stories that you write or tell will be attributed to you, should I use them in any publication and/or presentation that may result from this research.

I will not use photographs and video clips of you for any publications and presentations that may result from this research unless you have given me permission to do so. I wish to inform you that, should you give me permission to use photographs and video clips of you, I will not be able to keep your identity confidential. However, I give my assurance that any information, photographs and videos collected in this research will be used for educational purposes only.

What happens if you decide not to participate in or decide to withdraw from the research?

Participation in the research is voluntary, and if you choose not to participate in the research, you are still welcome to participate in the professional development. You may also withdraw from the research or withdraw any information pertaining to you at any time. In all cases, I will remove all agreed references to you in my data, and if you feature in any photographs or video clips that are taken in a group setting, your image will be digitally masked so that you are not identifiable. I assure you that you will not, in any way, be penalized.

What happens to the data?

The data that I collect for the research will be stored in a safe and secure place for the duration of the research. As you are also aware, I will be applying for a research grant from Sport and Recreation New Zealand (SPARC) to carry out this research. Should I be successful, SPARC has requested that my data be given to them at the end of the thesis to be stored electronically. It may be used for further analysis by SPARC. I assure you that I will give them only the data that we both agree to include as part of my research.

What else do you need to know?

I wish to inform you that The Christchurch College of Education Ethics Committee has reviewed and approved this study. If you have any queries or concerns about your participation in this research, please feel free to speak to me anytime at the preschool or call me at home at 385 9522. Alternatively, you may wish to contact one of my supervisors, Drs. Elaine Mayo or Lindsey Conner, from the Christchurch College of Education. Elaine can be contacted at 345 8447 and Lindsey at 345 8463.

The College requires that I inform you that if you do have any complaints concerning the manner in which the research is conducted, you may give it to me or, if you prefer an independent person, to:

The Chair
Ethical Clearance Committee
PO Box 31-065
Christchurch
Phone: (03) 345 8390

What to do next?

Please sign the attached consent form if you agree to participate in the research and the ways in which you agree to participate.

I believe this research will be invaluable in helping us understand the ways in which the professional development has and has not worked for us, individually and collectively. I appreciate your support in being part of this research. Thank you.

Yours truly,

Hanin Hussain

Tel: 385 9522



Consent form for teachers

I have read and understand the information about the research into our professional development. On that basis, I agree to participate in the study, which will allow you to:

- ◆ observe and talk to me about the professional development Yes/No*
- photograph, videotape and/or audiotape activities, events and experiences related to the professional development in which I am involved Yes/No*
- access photographs, videotapes, documents (including movement stories) and notes I use and/or create as part of the professional development Yes/No*
- use photographs of me for any publications and presentations Yes/No*
- use video recordings of me for any publications and presentations Yes/No*
- audiotape our informal conversations Yes/No*

I understand that should I not give you permission to do any of the above, any reference to me in photographs, videotapes and audiotapes taken in a group setting will be deleted or digitally masked out.

I understand that you also wish to learn to use the video camera before you receive ethical approval for your research and that you will seek my permission before using recordings of me during this period for the professional development or research. During this time,

- I would also like to learn to use the video camera Yes/No*

I understand that my participation is voluntary and that I may withdraw from the research at any time. I also understand that I have a choice of using my own name or a fictitious one.

- I choose to keep my name and understand the risks associated with using my own name in this research. Yes/No*
- I wish to use this fictitious name, _____, and understand that my identity will be kept confidential. Yes/No*

I understand that any information you collect will be used for educational purposes, and that I may withdraw any information pertaining to me at any time during the study.

I also understand that should you be given a research grant from SPARC, the agreed information collected will be given to and stored by SPARC, who may carry out further analysis.

Signature: _____

Date: _____

Name: _____

Phone: _____

Address: _____

* Please circle your choice.



Information letter to parents

7th January 2005

Dear parents, caregivers and whaanau

The teachers are doing professional development – what is it?

The teaching team at FUNdamentals will be embarking on professional development in Active Movement. The purpose of this professional development is to enhance the teachers' knowledge related to the centre's gym programme. For the professional development, the teachers will observe, photograph and videotape the children's engagement in movement activities that are part of the center's programme. It may also involve informally talking to you about your children's learning. We will use these conversations, observations, photographs and video recordings to create stories about the children's learning in Active Movement and write and/or discuss what we learn from them. These stories can also be used as learning stories for your child's profile book.

I'm doing my research - what is it?

I am also pursuing a Master's degree in teaching and learning at the Christchurch College of Education. I will be doing my research thesis in conjunction with this professional development. My thesis is entitled *Learning journeys in Active Movement: A case study of professional development in Active Movement*. It will focus on evaluating the professional development in terms of how it impacts on the teaching team, individually and collectively. To do this, I will participate in the professional development, as well as observe and record conversations, meetings, activities, events and experiences related to the professional development. I will also be accessing the video recordings, photographs, learning stories and notes that we, teachers, use and/or create as part of the professional development. The data that I collect can be used for professional development, research and assessing children's learning. I anticipate that the data collection for the research will take place over a period of 12 months.

I will be learning to use a video camera before starting the professional development and research. I have invited the teachers to join me in this learning, which will be incorporated into life at the center. Any video data that we record while learning to use the video camera before I have received ethical approval for my research will not be used for the professional development or research unless I have asked you for permission to do so and you have agreed to it.

How will confidentiality be addressed?

It is likely that the learning stories that the teachers write about your child's learning, together with any photographs, will be put up on the centre's notice board as part of our normal practice. However, I will change your child's name in the stories that I collect for my research so that your child's and your identities will remain confidential during all stages of this research. This will also protect your child's identity in any publications and presentations that may result from this research.

The teachers will use photographs and video clips of your child for any publications and presentations that are part of the *professional development* only if you give us permission to do so. Similarly, I will use photographs and video clips of your child for any publications and presentations that may result from this *research* only you have given me permission to do so. I wish to inform you that, should you give us permission to use photographs and video clips of your child for these purposes, I will not be able to keep his/her identity confidential. However, I give my assurance that any information, photographs and videos collected in this professional development and research will be used for educational purposes only.

What happens if you decide not to let your child participate in the research or decide to withdraw your child from the research?

Participation in the research is voluntary, and you may also withdraw your child from the research at any time. In the latter case, you may also withdraw any information pertaining to you and your child. In both cases, I assure you that you and your child will not be penalized for not participating in the research.

The teachers will still create learning stories about your child, as the professional development is part and parcel of center life. However, the learning stories that the teachers create about your child will not be used in the research. Furthermore, for the purposes of the research, any references to your child in other children's stories will be deleted, and if your child features in any photographs or video clips taken in a group setting, his/her image will be digitally masked so that he/she is not identifiable.

What happens to the data?

The data that I collect for the research will be stored in a safe and secure place for the duration of the research. I will be applying for a research grant from Sport and Recreation New Zealand (SPARC) to carry out the professional development and research. Should I be successful, the information that I have collected will be given to SPARC and stored electronically. It may be used for further analysis by SPARC. I assure you that I will give them only the data that we both agree to include as part of my research.

What else should you know?

I wish to inform you that The Christchurch College of Education Ethics Committee has reviewed and approved this study. If you have any queries or concerns about your participation in this research, please feel free to speak to me when you are at the preschool or call me at the preschool at 384 1522 between 8 am and 4.30 pm on weekdays. Alternatively, you may wish to contact one of my supervisors, Drs. Elaine Mayo or Lindsey Conner, from the Christchurch College of Education. Elaine can be contacted at 345 8447 and Lindsey at 345 8463.

The College requires that I inform you that if you do have any complaints concerning the manner in which the research is conducted, you may give it to me or, if you prefer an independent person, to:

The Chair
Ethical Clearance Committee
PO Box 31-065
Christchurch
Phone: (03) 345 8390

What to do next?

Please sign the attached consent form if you agree for your child to participate and the ways in which you agree to participate.

I strongly believe that teachers' professional development in Active Movement can enhance the children's learning and development. The research to evaluate the professional development will be invaluable in helping the teaching team understand the ways in which the professional development has and has not worked for us, individually and collectively. I appreciate your support in allowing your child to be part of the professional development and research. Thank you.

Yours truly,

Hanin Hussain

Tel: 384 1522



Consent form for parents and caregivers

I have read and understand the information about the professional development and the research. On that basis, I agree for my child to participate in the *professional development*, which will allow the teachers to do the following (in addition to normal center practice):

- photograph, videotape and/or audiotape activities, events and experiences at the center involving my child Yes/No*
- use my child's learning stories for any publication and/or presentation Yes/No*
- use my child's photographs for any publications and/or presentations Yes/No*
- use video recordings of my child for any publications and/or presentations Yes/No*

I also agree for my child to participate in the *research*, which allows you to do the following:

- access stories and notes teachers use and/or create involving my child Yes/No*
- use my child's photographs for any publications and presentations Yes/No*
- use video recordings of my child for any publications and presentations Yes/No*
- record our informal conversations Yes/No*

I understand that should I not give you permission to do any of the above, any reference to me and/or my child in photographs, videotapes and audiotapes taken in a group setting will be deleted or digitally masked out.

I understand that you also wish to learn to use the video camera before you receive ethical approval for your research, and that you will seek my permission to use any recordings of my child taken during this period for the professional development or research.

I understand that my child's identity and any information pertaining to me and my child will be kept confidential. I also understand that this information will be used for educational purposes, and that I may withdraw my child from the study at any time. Furthermore, should I choose to withdraw, I may also withdraw any information pertaining to me and my child.

I also understand that should you be given a research grant from SPARC, the agreed information collected will be given to and stored by SPARC, who may carry out further analysis.

Signature: _____

Date: _____

Parent's name: _____

Child(ren)'s name(s): _____

* Please circle your choice.



Information letter to management

7th January 2005

Dear _____

As you are aware, the teaching team at FUNdamentals is embarking on professional development in Active Movement. The purpose of this professional development is to enhance the teachers' knowledge related to the centre's gym programme.

As you are also aware, I am pursuing a Master's degree in teaching and learning at the Christchurch College of Education. I will be doing my research thesis in conjunction with this professional development. My thesis is entitled *Learning journeys in Active Movement: A case study of professional development in Active Movement*. It will focus on evaluating the professional development in terms of how it impacts on the teaching team, individually and collectively.

How can you be part of the research?

To carry out the research, I will participate in the professional development, as well as observe and record conversations, meetings, activities, events and experiences related to the professional development, of which you may be a part. At times, I will record these using a video camera or a tape recorder. I will also be accessing the video recordings, photographs, documents (including stories) and notes that we, the teachers, use and/or create as part of the professional development. It is possible that some of these may involve you. The data that I collect can be used for professional development, research and assessing children's learning. I anticipate that the data collection for the research will take place over a period of 12 months.

As you are a part of the FUNdamentals team, I would like to invite you to participate in the evaluation research.

What will confidentiality be addressed?

I will keep your identity confidential during all stages of this research by giving you a fictitious name. This will also protect your identity in any publications and presentations that may result from this research. I will not use photographs and video clips of you for these unless you have given me permission to do so. I also give my assurance that any information collected in this research will be for educational purposes only.

What happens if you decide not to participate in or decide to withdraw from the research?

You are still welcome to be part of the professional development, should you choose not to participate in the research. You may also withdraw from the research or withdraw any information pertaining to you at any time. Furthermore, if you feature in any photographs or video clips that are taken in a group setting, your image will be digitally masked so that you are not identifiable.

What happens to the data?

The data that I collect for the research will be stored in a safe and secure place for the duration of the research. As you are aware, I will be applying for a research grant from Sport and Recreation New Zealand (SPARC) to carry out this research. Should I be successful, the information that I have collected will be given to SPARC and stored electronically. It may be used for further analysis by SPARC. I assure you that I will give them only the data that we both agree to include as part of my research.

What else should you know?

I wish to inform you that The Christchurch College of Education Ethics Committee has reviewed and approved this study. If you have any queries or concerns about your participation in this research, please feel free to speak to me when you are at the preschool or call me at home at 385 9522. Alternatively, you may wish to contact one of my supervisors, Drs. Elaine Mayo or Lindsey Conner, from the Christchurch College of Education. Elaine can be contacted at 345 8447 and Lindsey at 345 8463.

The College requires that I inform you that if you do have any complaints concerning the manner in which the research is conducted, you may give it to me or, if you prefer an independent person, to:

The Chair
Ethical Clearance Committee
PO Box 31-065
Christchurch
Phone: (03) 345 8390

What do you do next?

Please sign the attached consent form to indicate that you agree to participate and the ways in which you agree to participate.

I believe this research will be invaluable in helping the teachers understand the ways in which the professional development has and has not worked for us, individually and collectively. I appreciate your support in being part of this research. Thank you.

Yours truly,

Hanin Hussain

Tel: 385 9522



Consent form for management

I have read and understand the information about the professional development and research. On that basis, I agree to participate in the study, which will allow you to:

- observe and talk to me about my participation in the teachers' professional development Yes/No*
- photograph, videotape and/or audiotape activities, events and experiences related to the professional development in which I am involved Yes/No*
- access documents (including movement stories) and notes involving me that teachers use and/or create as part of the professional development Yes/No*
- use my photographs for any publications and presentations Yes/No*
- use video recordings of me for any publications and presentations Yes/No*
- audiotape our informal conversations Yes/No*

I understand that should I not give you permission to do any of the above, any reference to me in photographs, videotapes and audiotapes taken in a group setting will be deleted or digitally masked out.

I also understand that my identity and any confidential information will be kept confidential.

I also understand that this information will be used for educational purposes, and that I may withdraw from the study at any time. Furthermore, I may also withdraw any information pertaining to me.

I also understand that should you be given a research grant from SPARC, the agreed information collected will be given to and stored by SPARC, who may carry out further analysis.

Signature: _____

Date: _____

Name: _____

Phone: _____

* Please circle your choice.