



***Under three year-olds
in kindergarten:
Children's
experiences and
teachers' practices***

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**Judith Duncan, Carmen Dalli,
Raylene Becker, Michelle Butcher, Kristie Foster,
Karmen Hayes, Sue Lake-Ryan, Bev Mackie, Helen
Montgomery, Penny McCormack, Raylene Muller,
Rosalie Sherburd, Jan Taiata, and Wendy Walker**

**With: Chris Bowden, Kerry Cain, Helen Duncan, Julie Lawrence,
Karen McCutcheon, Renate Simenaur, and Jessica Tuhega**



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findings will be of interest to this wider circle of educational environments; we thank you for this.

1. Introduction

Background

Historically, kindergartens have provided early childhood environments for over three year-olds. Recent demographic changes have seen a fall in enrolments and in the numbers of children on waiting lists. The pressure to keep kindergartens on full rolls so that they can benefit from higher funding has meant that many kindergartens have enrolled a significant number of under-three year-olds in their centres. This has proven to be a challenge for teachers in terms of their teaching practices, programming and curriculum goals. Factors in the teaching environment, such as a physical environment structured primarily for the older-age child, and the large group setting of 30 to 45 children per session impact on the experiences of all the children but particularly on the very young child.

The history, philosophy and current context of the New Zealand Free Kindergarten Associations kindergartens have been shaped by the beliefs and practices of the participants in the service – teachers, trainers, management bodies, and the families whose children participate in the service. A body of literature has now built around this that also identifies the pedagogical practices which have arisen in kindergartens (Dempster, 1986; Duncan, 2001a; Dunedin Kindergarten Association, 1989; Levitt, 1979; Lockhart, 1975; May, 1997, 2001). That the majority of children attending kindergartens have largely been aged three years and over is therefore a matter of record and remains the case in kindergartens in areas whose demographics support waiting lists and high enrolments. Examples of such areas are Christchurch and most of Auckland.

There is also, however, considerable variation in New Zealand over the starting age of children at kindergarten, and in many areas there are significant numbers of two year-olds attending kindergarten. As early as

1994 teachers in South Island kindergarten associations were identifying that they had younger children (under-three years-old) starting in the afternoon session, and they discussed the impact that this had on their traditional programme:

LAURA (Interview 1994): Oh that pressure [to keep rolls full] is absolutely awful (pause). Absolutely dreadful. I mean every kindergarten teacher that I know will be doing their utmost to get their rolls full (pause). They are really trying. People are not being slack. Like I mean I'm taking children at two [years] eleven [months]. In the afternoon I am offering a care programme (pause). It's absolute survival (pause). I tried to think of innovative ideas. I don't know what to do (pause). We may have permanent playgroup Monday, Tuesday, Thursday¹, I don't know (pause). The age group is so wide now that I don't want to bring any morning children back in the afternoon because their age group is too wide. It's not family grouping. It's nothing. It's just yuck (pause). (Duncan, 2001b, p. 112)

A 1997 policy document in the Dunedin Kindergarten Association also discussed the necessity for under-three year-olds (Dunedin Kindergarten Association, 1997). By 2003 the age of children attending in Dunedin kindergartens had lowered further with children starting as young as on their second birthday. Additionally, the number of these very young children had increased in the sessions also. For example, in 2003, two Dunedin kindergartens had 50% of their afternoon-session children aged less than three-years, in three kindergartens, over 30% were under three, and in one kindergarten 26% of their entire enrolment was under three years. Within the full Association, of the 22 kindergartens, half had more than one-third of their afternoon session enrolments filled with under-three year-olds.

What Don't We Know?

The changing context for kindergartens raises questions about its impact on the experiences of children and teachers. Earlier research by one of the investigators in this study (Duncan, 2001a; Duncan, Bowden, Smith, 2005), resulted in many questions about what good teaching practices and positive learning experiences for children would 'look like' in this new

environment. For example: some teachers had been able to see this change as having many positive features, while others had been struggling with the increased physical demands of toileting children who were not yet fully toilet-trained, and with concerns about physical safety.

Academic and research literature on two year-olds in early childhood settings in New Zealand is limited; our literature search for this study made it clear that two year-olds often fall into a 'black hole' between being an infant and toddler (0-2 years) and being a young child or preschooler (3-5 years). This means that information pertaining to just two year-olds, or directed at working with two year-olds, is likewise very limited. It is important to question why this is so: Is it because researchers and academics have moved away from an age-related developmental discourse? Or is it because two year-olds have been subsumed into being either a toddler or a young child? Or could it be that the current New Zealand age groupings in early childhood education and care centres reinforce the invisibility of two year-olds? What does becoming a 'kindy kid' at two years-old now mean?

Our study has been framed with these questions in mind, mindful also that the kindergarten associations were framing similar questions when planning the future of their service (Stoke-Campbell, 2003, personal communication). [General manager of Dunedin Kindergarten Association, 2003].

As we began the study, additional areas of interest came to our attention as conversations around the project were generated in different kindergarten gatherings in New Zealand. Our interest in the national picture of kindergarten services was increased when in March 2005, at the beginning of the second year of this project, Judith Duncan presented preliminary findings to a Kindergarten Senior Teacher Hui in Wellington. The comments and concerns raised by Senior Teachers from each of the different associations were remarkably similar to the concerns raised by

¹These were the usual afternoons for kindergarten sessions for the younger age group.

teachers in this study and this suggested to us that a shared discourse might be operating within the kindergarten service around the ability of kindergartens to meet quality outcomes for their youngest children. This prompted us to design and administer a questionnaire, to canvas the associations about the wider national issues associated with having two year-olds in kindergartens. This national survey was an addition to our original project design, which focused on case study kindergartens within the Dunedin and Wellington Kindergarten Associations.

The Dunedin Context

The Dunedin Kindergarten Association governs and manages 22 kindergartens, with around 1500 children attending in the greater Dunedin area. It has a long history of kindergarten provision, as the place where the first independent kindergarten was begun in 1889. A promotional pamphlet for the association describes its philosophies as based on "play as a tool to teach children the skills they need for school, and to discover that learning is fun!". It also states that each kindergarten "has a planned curriculum that builds each child's development over the whole year so that they are best prepared for school and beyond" (Dunedin Kindergarten Association, 2005).

The association itself had changing management over the life of this project: Between 2003-2006 there were three different General Managers, and while a new Senior Teacher position began in 2003, three changes of staffing also occurred in this position over this time. A complete new Board was appointed in 2003, and in 2004 the Education Review Office report noted:

The board is effectively governing the association. The board's primary focus is on children and improving association operations. It is giving priority to developing a culture of improved communication and building effective relationships. It has reviewed the association's constitution and developed a strategic vision that values partnerships, collaboration and quality. (Education Review Office, 2004)

Within this context, the consideration of two year-olds as part of the kindergarten provisions were part of the General Manager and Board discussions and so this research was seen by the Association to be timely.

The numbers of under-three year-olds in Dunedin has been quite changeable over the 2003 – 2006 period. However, Association documentation shows that there has been a considerable number of under- three year-olds for over five years within the Association. As is

demonstrated in the following table, there have been fluctuations of numbers within the kindergartens, as well as within the Association, and this changes the daily contexts for each of the kindergartens.

Table 1: Number of under-three year olds enrolled in Dunedin kindergartens, 2003 and 2005

Name of Kindergarten	November 2003 Under 3's	March 2005 Under 3's
Abbotsford	7	0
Bayfield	7	13
Brockville	10	0
Concord	14	13
Corstorphine	12	13
Grants Braes	11	15
Green Island	0	0
Halfway Bush	0	2
Helen Deem	7	14
Jonathon Rhodes	1	0
Kaikorai	11	9
Kelsey Yaralla	13	16
Mornington	10	4
Mosgiel Central	0	4
Port Chalmers	2	2
Rachael Reynolds	15	17
Reid Park	20	4
Richard Hudson	11	8
Roslyn	0	0
Rotary Park	0	4
St Kilda	1	6
Wakari	10	5
Totals:	162	120
Percentage of enrolments	10.8%	8%

Comments on the Dunedin Kindergarten Association processes for including two year-olds: (Contributed by Jill Cameron in 2004-Relieving Senior Teacher 2004-2005)

Documentation:

There may have been documentation of this in individual kindergarten's staff meeting books. There was reference to younger children attending sessions in the General Managers report to the Board of Trustees 13 March 2001:

Extra support has been placed into [name of kindergarten] for one term (one session per week for 7 weeks) to help address the issues that very young children create. The staff have initiated an extension programme in the Wednesday afternoon to give the older (10) afternoon children more opportunity for learning. This move has been well received by the kindergarten parents and we are investigating the option of this continuing to the end of the year with the funding being used to keep the extra staffing in place.

And reference to professional development:

Stuart Guyton (ECD) will run two workshops for staff in the term 1 break on programming for toddlers and young children.

Policy, Association Decision or Just Happened?

Due to the demographics and ever decreasing numbers of preschool children this has resulted in the lowering of waiting lists and younger children getting into sessions. Kindergartens' licenses were for children aged from two years-old so the regulations allowed for this to take place. As children became younger entering the afternoon session it was a natural progression to enroll children under-three into sessions. Informal discussion took place between the association and individual kindergartens concerned.

Discussion with teachers

Kindergartens carried out brain storming ideas for providing programmes for under-threes. Challenges were discussed and ideas to overcome these shared. Teaching teams worked to find their own best practice and shared their ideas with other kindergartens. Discussion with regards to best practice has occurred informally and as part of a large group debate. Particular focus of the discussion has been group size, environment size and teacher skill base to cater for this different from traditional age group. During the initial introduction of under-threes into the kindergarten programme, care was taken by teaching teams to manage the number of younger children in the programme. Teachers were aware of the impact of having younger children in the programme and would monitor the number of younger children in a session at one time.

The Association supported professional development for teachers that focused on younger children. Course information was shared to enable teachers appropriate opportunities to become more skilled and confident in this area. For example, Stuart Guyton held a workshop on providing a programme for toddlers and young children.

Association philosophy

The [Dunedin] association philosophy is concerned with providing excellence in accessible education and care for children. With the age of children entering kindergarten becoming younger, the association has not changed its position with regards to its philosophy but has broadened its focus area in terms of ages of children. Families have supported this.

Statement from Association

There has not been a statement from the association regarding under-threes in kindergarten.

The Wellington Context

The Wellington Region Free Kindergarten Association governs and administers 56 kindergartens that cover a diverse range of communities from Levin to the eastern suburbs of Wellington. Over 4100 children attend the Association kindergartens. The Association was set up in 1905 with its first kindergarten opening in April 1906.

At the start of the project in 2004, there were four senior teachers and a Services' Manager who, between them, provided professional advice to kindergarten teachers across the region. The senior teachers each have responsibility for a group of kindergartens and visit each of them at least once a term. In 2006, there are five senior teachers.

The Association describes itself as employing only “fully qualified and registered teachers and overall our staff turnover is low”. Its statement of values includes a commitment to “ensuring that the activities of the Association and kindergartens centre on the needs of the child as learner, and on the principles, requirements, goals and objectives stated in the Charter”.

An Education Review Office (ERO) report on the association kindergartens carried out between January to September 2005, during the second year of this study, says that the Association:

[H]as given serious consideration to the diversification of service provision to better reflect, or meet, different community needs. This has resulted in changes in session times or reorganization of groupings, in some kindergartens. However, the majority of Wellington kindergartens retain the traditional morning and afternoon sessions with tow afternoons of non-contact time each week. (Education Review Office, 2005)

Table 2 demonstrates that the total number of two-year olds in Wellington kindergartens is much lower than that in Dunedin and spread across fewer of the kindergartens in the Association. While in Dunedin 20 out of a total of 22 kindergartens (91%) had under-three year olds on their roll at

the times shown in Table 1, in Wellington 25 out of 56 kindergartens (45%) were in this position, and of these only seven (28%) kindergartens had more than five two year-olds at any one time. By comparison, 75% of kindergartens in Dunedin which had two year-olds attending, had five or more during the times shown in Table 1. These differences between the two association contexts in our study illustrates the variability that exists between different associations nationally (for further discussion of this see Level Four findings of this report). A list of the starting ages of children enrolled in Wellington kindergartens tabled at a meeting with the Association in early 2005 shows that the youngest starting age across the kindergartens in September 2004 was two years eight months.

Table 2: Number of under-three year-olds enrolled in Wellington kindergartens, at 1 July 2004 and 1 July 2005

NAME OF KINDERGARTEN	UNDER 3s 1 July 2004	UNDER 3s 1 July 2005
ADVENTURE	0	0
ASCOT PARK	4	9
BELLEVUE	0	0
BERHAMPORE	0	0
BETTY MONTFORD	0	0
BRIAN WEBB	0	0
BROOKLYN	0	1
CAMBRIDGE STREET	0	0
CAMPBELL	0	0
CHURTON PARK	0	0
CLYDE QUAY	0	4
DISCOVERY	0	0
EAST HARBOUR	11	7
HATAITAI	0	4
ISLAND BAY	0	0
JOHNSONVILLE	0	5
JOHNSONVILLE WEST	0	0
KATOA	2	4
KHANDALLAH	0	0
LYALL BAY	0	0
MARAEROA	0	0
MIRAMAR CENTRAL	0	0
MIRAMAR NORTH	6	3
MOIRA GALLAGHER	0	0
MUNGAVIN	0	3
NEWLANDS	0	0
NEWTOWN	2	0
NGAHINA	2	4
NGAIO	0	0

NORTHLAND	0	0
ONSLow	0	0
OTAKI	0	1

NAME OF KINDERGARTEN	UNDER 3s 1 July 2004	UNDER 3s 1 July 2005
PAPAKOWHAI	0	1
PAPARANGI	0	0
PARAPARAUMU	0	0
PAREMATA	0	0
PARSONS AVE	0	0
PETONE	0	0
PETONE BEACH	0	1
PLIMMERTON	3	0
PUKERUA BAY	0	0
RAUMATI BEACH	4	2
RAUMATI SOUTH	10	5
SEATOUN	0	0
STRATHMORE PARK	2	1
SUNSHINE	3	0
TAIRANGI	0	0
TAITOKO	3	5
TAWA CENTRAL	0	0
TITAHI BAY	0	0
TUI PARK	1	3
WADESTOWN	0	0
WAIKANAE	0	0
WAITANGIRUA	10	12
WELLINGTON SOUTH	0	0
WRIGHTS HILL	3	4
Totals	65	84
Percentage of enrolments	1.5 %	2%

Under 3's in Kindergartens Research: Wellington Kindergarten Association (Contributed by Margaret Bleasdale, Senior Teacher, June 2005)

Setting up the Research

The Association currently has approximately 18 out of 56 kindergartens with children under-three years of age enrolled in the afternoon sessions.

It has been a challenge to find kindergartens with sufficient children who would fit the age criteria for long enough to make participation in the study viable. Factors that influenced this included:

- Children starting when they were too old; for example, 2 [years] 9 [months] and older so they would turn three during the period of observations.
- Teams that were changing, for example, a new head teacher appointed, or changing hours to meet community need.
- Kindergartens that were too far away from Wellington for travel, for example, Levin.
- Current trend of families coming 'off the street' to enroll 4 and 3-year olds and filling up previous low rolls which had had under-threes.

Association Policy Environment

Why don't we have more kindergartens that would fit the research criteria? This sent us on a journey of reflecting on policies in the past and how these have shaped the age composition of the rolls in kindergartens today.

The Wellington Region Free Kindergarten Association has a history of strong commitment to teacher employment conditions. An acknowledgement of the much publicised *Quality Indicators* led to some changes in the operation of kindergartens over the late 1980s and early 1990s:

- Group sizes lowered;
- Kindergartens were generally licensed for 45 children with three teachers. The Association reduced rolls where possible, moving to group sizes of 42 or 43. Compelling evidence indicated that even the reduction of one or two children could make a difference to the dynamic of the group, even though this decision had repercussions in other areas of Association budget.
- A limit on number of children in the session aged under-three to approximately 10% of the roll.

- At this time few kindergartens had shubs, showers or changing tables and with younger children requiring changing more frequently the high teacher:child ratios posed some concerns.
- Long waiting lists meant that some children were getting very little time at kindergarten.
- It was around this time that the Association moved from length of time on the waiting list as being the criteria for admission, to age order. This was more equitable for children and enrolment on the basis of age has continued. Admitting children by age order had the effect of lifting the average age in sessions.
- Limit on the number of shared places offered. Having children enrolled for less than the three (afternoon) or five (morning) sessions meant considerably more administration was well as meaning that teachers needed to form relationships and interact with more than the average 90 families, a load which was already considerable. Also waiting lists were longer (averaging approximately 30 per kindergarten) so the teachers could encourage parents to have their children attend for all the allocated sessions. There was also pressure on teachers to keep rolls full, the reduced group size mentioned above resulted in maximum funding being an imperative.

2. Aims and Objectives of the Research

Research Questions

Our research questions for this study were:

- I. What are the experiences of under-three year-olds in the kindergarten setting?
- II. What factors within the kindergarten environment support positive experiences for the under-three year-olds?
- III. What factors impact on teachers for positive environments and practices when working with the under-three year-olds in their kindergartens?
- IV. What macro factors impact on the experiences of the under-three year-olds in the kindergarten environment?

Objectives

This project had three main objectives:

- I. To investigate the experiences of selected two year-olds in four case study kindergartens – two in Dunedin, and two in Wellington;
- II. To use data on the two year-olds' experiences as a basis for reflecting with the case study kindergarten teachers on their planning and assessment practices with the under-three-year olds in their kindergartens;
- III. To facilitate cluster group meetings where the teachers from case study kindergartens lead discussions to enhance learning and teaching experiences in kindergartens that operate in an "under-three year-old context".

Aims

The study aimed to:

- I. Capture the current experiences of the children at the centre from as many perspectives as possible;
- II. To reframe any discourse on the under-three year-olds which works to disadvantage the children or negatively impact on the teacher's job satisfaction; and

- III. To work alongside the teachers to identify those discourses and structures which wider society and structures may need to address to ensure a safe, and high quality educational experience for the country's two year-olds who attend kindergartens.

Strategic priorities

Our project has addressed the following TLRI project priorities:

Strategic value:

1. Reducing inequalities

While the phenomenon of under-three year-olds attending kindergartens is a relatively new issue for the kindergarten service, the overall decline in the traditional kindergarten enrolments indicate that this is going to be a continuing reality for the teachers and the service. We believe that families should have the CHOICE to select which early childhood centre they wish to use, and that EVERY child should have a QUALITY experience at the centre they attend. This research has supported teachers' reflections on their practices within their programmes for two year-olds and has begun to build a community of practice that is inclusive of two year-olds within the kindergartens involved in this research. As the prompt and high response rate to our national survey of kindergarten associations shows, our study has generated much interest outside of the case study associations. We are confident that the continuing discussions around New Zealand will support improved experiences for two year-olds in kindergartens.

2. Understanding the processes of teaching and learning

This project has supported the kindergarten teachers in their day-to-day teaching practices with the under-threes in their centres. It has acted as an opportunity for teachers to engage in reflective discussions and deconstruction of their images of the very young child, and has encouraged a more inclusive approach to two year-olds in kindergartens. This has occurred both with the teachers in the case study kindergartens, and also with the teachers involved in the cluster groups who developed

a sense of a community of practice throughout the duration of the study. The following feedback on the impact of the cluster group meetings from two teachers illustrates this:

It has broadened our understanding of other centres' experiences and diversity with under-3s and their challenges.

It was interesting to learn that the issues facing under-tuos are common. They can take longer to settle and learn the basic routines, for example: hand-washing, participating, eating in designated places, staying on mat at end of session. Toileting issues also.

3. Exploring future possibilities

Both in gathering the data, and discussing these with teachers, the project has facilitated developments in teacher thinking and practice with children. Our expectation was that the project would open up new possibilities not only for the case study children, but also for all children attending kindergartens. We anticipated that this would involve some deconstruction of dominant discourses about children and childhood within kindergartens. At the same time we hoped and anticipated that this deconstruction might also lead to some innovative approaches to working with children in the very early years. We feel that these expectations have begun to be met; this was demonstrated more strongly with the Dunedin teachers who were continuously involved in the project over its two-year duration. For these teachers, involvement in this project has opened up the debate about the future directions of kindergarten policy relating to very young children, including at the level of children's experience and teachers' own lived practice. For the Wellington teachers, continuous involvement of the case study teachers was not possible as roll and staff changes at the participating kindergarten resulted in a change of kindergarten for the second year of the project. Nonetheless, by the end of the study, it was clear that some change had occurred away from viewing two-year olds as primarily a challenge to the status quo, and as quite labour intensive, to seeing them as "actually, quite competent". There was evidence of much reflective thinking and suggestions were

shared about helpful strategies to deal with, for example, the challenges of mat time that one kindergarten was experiencing.

Research value

This study has made a significant contribution in our understanding of this under-researched and under-recognised area of education. Working alongside teachers in gathering data, and as full partners in the reflective and analytic parts of the project, this project has added to the teachers' professional skills and research abilities. The cluster group sessions supported the dissemination of knowledge and debate outside of the immediate case study kindergartens, thus directly impacting on a wider number of kindergartens than only the case study ones. The Dunedin case study teachers took an increasing lead role in the study by presenting aspects of the research to their peers in two cluster groups, and to the *New Zealand Association of Research in Education Annual Conference* in December, 2005. As expressed earlier, this project directly addressed the key strategic themes of the *Teaching and Learning Research Initiative* and is forward looking by working in a proactive and inclusive manner.

1. Consolidating and building knowledge

In the discussions with the case study kindergartens, and in the cluster groups, the teachers engaged in reading, reflecting and rethinking of their practices drawing on current research and contemporary theory. The journey of searching and thinking about the issues for two year-olds in this unique early childhood service has generated new research questions, and new understandings of quality practices for two year-olds.

2. Identifying and addressing gaps in our knowledge

As noted earlier, research-based understanding of the experiences of under-three year-olds in a New Zealand kindergarten setting has, until now, been non-existent. This is despite significant interest in quality provision for infant and toddlers in other early childhood settings. This includes research on topics such as the relationships between children and adults in childcare (Brennan, 2005; Dalli, 1999; Rolfe, 2000), the operation of a primary caregiver (keyperson) system (Dalli, 2000; Elfer,

Goldschmeid & Selleck, 2003), caring as curriculum (Rofrano, 2002) and structural elements such as appropriate staff:child ratios (Smith, 1999; Smith, Grima, Gaffney, Powell, Masse, & Barnett, 2000).

These studies point to some key structural aspects normally associated with good practice for under-three year-olds which are missing from normal kindergarten provision. For example, a primary caregiver system combined with a ratio of 1:3, allows one-to-one adult-child interaction to occur and thus the establishment of joint attention between adults and children. Smith (1999) has argued that joint attention episodes between children and adults are central to quality childcare because they allow children to become “known” by the adult who is thus more able to respond to the particular characteristics of individual children. Current discussions about children's emotional well-being also emphasise the importance of adult-child interaction where there is engagement, “tuning-in” (Greenman & Stonehouse, 1997) and a sense of “being present” to the child (Goldstein, 1998).

Our research questions and aims of this study address these very understandings and how they related specifically to two year-olds in kindergartens.

2. Building capability

This research project has been a research journey for all involved. We intended that the research would support the ongoing pedagogical documentation of the involved kindergartens and their ongoing interest and skills in meaningful research within their centres. The ongoing evaluations and discussions with all the partners in the research were used to help refine and reconsider the approaches and methods that we used throughout the two years. The employment of early childhood teachers as research assistants also contributed to building both research AND teaching practice skills and understandings for these teachers. The kindergarten teachers have expressed new understandings and insights about working with two year-olds.

4. Being forward looking

It was proposed that the teachers would be playing the key role in both the research data gathering, in the interpretation and analysis and in changing practices and discourses surrounding their work with children and families. We did not use the terms teacher-as-researcher, or action-research, in our proposal as currently many teachers are warned off by the sound of these titles, anticipating more work and very little positive outcomes for themselves. Instead, we had anticipated that by working collaboratively with the teachers as a research team, their involvement in this project would support their professional practice, their documentation work, as well as their emerging or beginning research skills. In conducting observations in the case study kindergartens, we employed early childhood teachers as research assistants. This shifted the role of the case study kindergarten teachers more onto the reflection, analysis and dissemination aspects of the project, rather than the actual observations and data gathering.

The cluster groups of teachers were also a key part of the project with the wider involvement of the other teachers in the geographical area. By working alongside the kindergarten associations we anticipate that there will be sustainable and ongoing professional development and policy decisions at the association level in the future. There has also been an increased national interest in the findings from this study with requests for copies of publications and invitations for presentations to kindergarten teachers around the country.

3. Research Design and Methods

Introduction

The study was initially developed between Judith Duncan and the Dunedin Kindergarten Association and Carmen Dalli and the Wellington Region Free Kindergarten Association.

Selection and Recruitment

The selection of kindergartens began by discussing the project with the Senior Teachers (ST) and Services Manager of the respective kindergarten associations. Each ST suggested likely kindergartens that both met the criteria with children, and where the staff could be interested in being part of the project. A short summary sheet was developed for the ST to take to the kindergartens suggested (See Appendix A). Once the ST had approached the kindergartens, this was then followed up with a phone call from either Judith or Carmen. This selection happened in 2003, as the application for the research grant required that we had our early childhood partners established before we could be considered for funding.

The next step was to re-establish the contact with the kindergartens in 2004 and provide them with further information and work through the full consent before proceeding with the study. However, changing rolls in the original kindergartens meant that they no longer had the children, or the available staff, to participate in the project. The process of selection and invitation was thus repeated and three different kindergartens (two in Dunedin and one in Wellington) joined the project.

In Dunedin, both kindergartens approached had significant numbers of two year-olds and were interested and able to participate in the project for the two years.

However, the Wellington part of study was impacted by a number of unexpected difficulties that required modifications to the original research design.

Rolls

Our first difficulty was to do with rolls: the number of under-threes enrolled in Wellington kindergartens and their age on enrolment.

We started the study wanting two kindergartens in different cities with a parallel profile. At the end of 2003 when we submitted our proposal, the information we had from the kindergarten associations indicated that this would be possible. However, by the start of the project in 2004, it became clear that there were marked differences between the enrolment patterns within the Dunedin Association and those of the Wellington Association (see Tables 1 and 2). While in Dunedin there was no shortage of very young under-threes enrolled in kindergartens, the total number of under-threes in the Wellington Association kindergartens was much smaller, and spread among only 45% of the total kindergartens, as opposed to 91% of the kindergartens in Dunedin.

Moreover, the under-three year olds enrolled in Wellington were closer to three than two-years of age. In Dunedin, we had numerous children who were enrolled at just two years-old.

This impacted on data gathering in Wellington in the following ways:

1. There were fewer kindergartens than in Dunedin which could potentially participate in the study;
2. There was a shorter span of time during which data gathering could be done before the children turned three.

When, together with the Wellington Kindergarten Association, we approached kindergartens with a history of enrolling under-threes as possible participants, we discovered they had started the year with insufficient numbers of under-threes to make a selection of case-study

children; in many cases, the children on the waiting lists were over-three. Finally, for Phase One of the Wellington part of the study, we decided to start the Wellington case studies in a kindergarten with whānau grouping in a low socio-economic area. However, mid-way through this case-study, the “supply” of under-threes suddenly ran out and by August 2004, the first case study had to be terminated. A second case study had also been initiated in July 2004 and this was able to be completed as a full Phase One cycle by early 2005. This meant that only one Wellington kindergarten, rather than the desired two, was included in the study.

Staff changes

A different problem occurred with the Phase One Wellington case study at the start of Phase Two. Two of the teachers from the case study kindergarten moved to different kindergartens, leaving only one of the original teachers in the study kindergarten. The remaining teacher asked us to delay starting the Phase Two data gathering to allow the new staff to settle into the new year. However, by the time this happened, the age structure of the kindergarten had changed so that there were no longer any under-threes to participate in the study.

The combination of staff and roll changes meant that a different kindergarten had to be chosen for Phase Two of the study. A consequence of this was that it was not possible to carry-over the team experience of the case study teachers from Phase One of the study into the second phase.

Fortunately, however, one of the original two teachers in the Phase One kindergarten was able to continue participating in the study through the cluster group meetings. Additionally, the kindergarten that came on board for Phase Two was one of the two kindergartens, which had been part of the original proposal, and the teachers in the Phase Two kindergarten had been part of the cluster groups in Phase One. Nonetheless, it should be noted that the Wellington data are different from the Dunedin ones in that they cannot be used to examine whether the experience of

participating in Phase One of the project made a difference to teacher practices in Phase Two for the same teachers.

The Team

Dunedin

Judith Duncan, *Children's Issues Centre, University of Otago.*

Michelle Butcher Helen Montgomery, Rosalie Sherburd, Jan Taita, Bev Mackie and Penny McCormack.

Dunedin Kindergarten Association - involvement from Christine Gale (*Senior Teacher*), Jill Cameron (*Relieving Senior Teacher*), Jane Ewen (*Senior Teacher*), and Andrew Campbell-Stoke (*General Manager*).

Helen Duncan, Julie Lawrence, Karen McCutcheon, Renate Simenaur, and Jessica Tuhega (*assisted with various aspects of project 2004-2005*).

Wellington

Carmen Dalli, *Institute for Early Childhood Studies, Victoria University of Wellington*

Raylene Becker, Kristie Foster, Karmen Hayes, Sue Lake-Ryan, Raylene Muller and Wendy Walker

Wellington Kindergarten Association – involvement from Margaret Bleasdale, Gillian Dodson and Mandy Coulston

Chris Bowden and Kerry Cain (*assisted with various aspects of project 2004-2005*).

Theoretical framework

Sociocultural perspective

Sociocultural approaches to early childhood education have provided some scope for building new foundations. (Fleer, 2002)

As Fleer (2002) states above, sociocultural approaches offer “scope for building new foundations” not only for research analysis but also in constructing and conceptualising all aspects of pedagogy.

This project aimed to “build new foundations” where we wanted to increase our understanding of teaching and learning processes for two year-olds in kindergarten settings and to understand how the wider contexts of kindergarten impacts on the daily experiences of learning and teaching.

Fleer (2002) has argued that it is possible to focus our analysis of learning and teaching through three different lenses - personal perspectives, interpersonal perspectives and community/institutional perspectives – and thus be able to both observe and conceptualise our teaching in a way that encompasses all aspects of the process. To illustrate this point Fleer provides the following diagram (Figure 1), adapted from Rogoff (1998, p. 688), to demonstrate how when each perspective is combined, the child in context is more accurately captured. This approach moves away from traditional child development position which has often observed the “isolated child” (Fleer, 2002, p. 6).

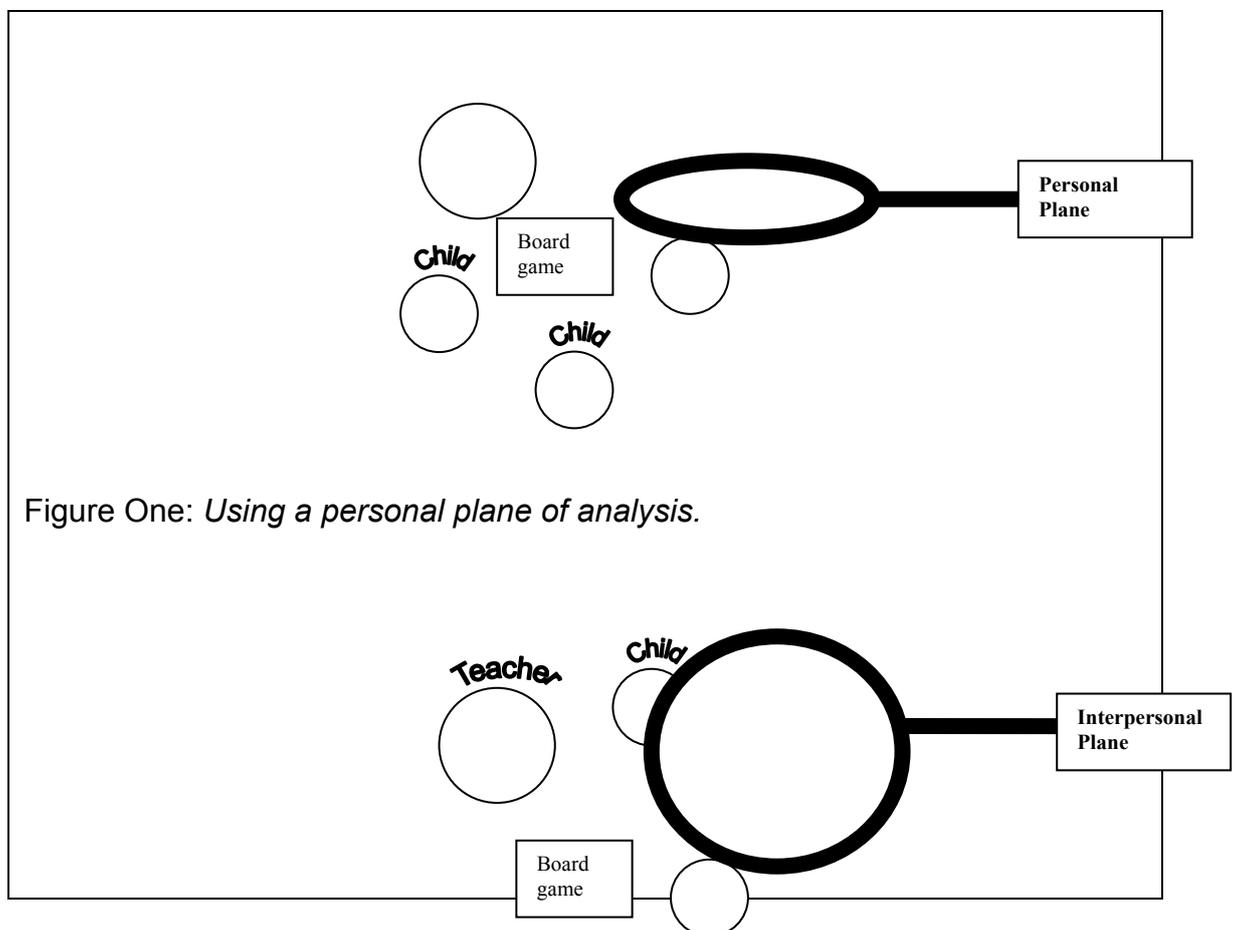


Figure One: *Using a personal plane of analysis.*

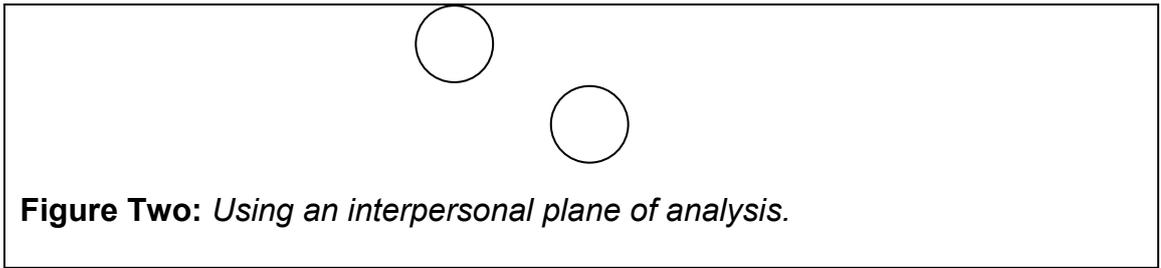


Figure Two: *Using an interpersonal plane of analysis.*

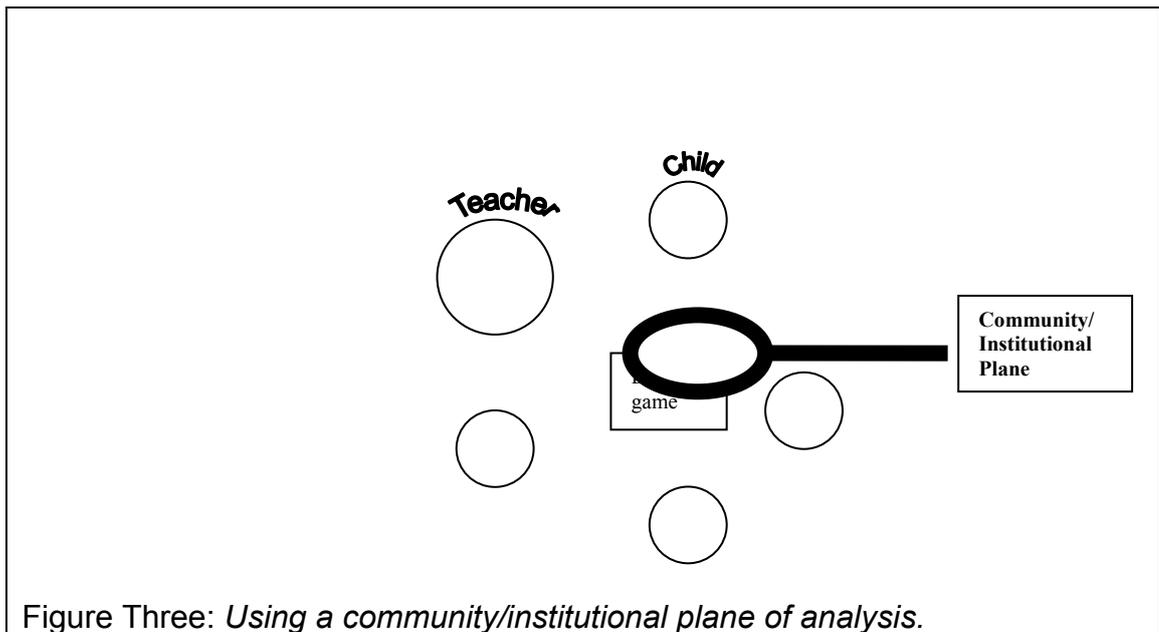


Figure Three: *Using a community/institutional plane of analysis.*

Figure 1: Three planes of analysis (Rogoff, 1998, cited in Fleer, 2002, pp. 6-7).

Building on this multi-level perspective on teaching and learning, we shaped our study around the four levels of learning in the early childhood context, adapted from Bronfenbrenner, (1979 cited in Ministry of Education, 1996, p. 19). These are:

- Level One: The learner engaged with the learning environment;
- Level Two: The immediate learning environments and the relationships between them;
- Level Three: The adults' environment as it influences their capacity to care and educate;
- Level Four: The nation's beliefs and values about children and early childhood care and education.

At each of these levels we asked different questions and used a range of methods to gather data on the children's and the adults' experiences within the kindergarten programme. While separating out the levels runs the risk of decontextualising each context, it also offered a way of reconceptualising the teaching-learning process in education.

Developmental Discourse

This study has also taken as its starting point a reconceptualisation of the developmental discourse with which the young child is often portrayed. Recent writings by Cannella (1997), Dahlberg, Moss and Pence (1999), and Bloch and Popkowitz (2000) have critiqued our reliance on child development, developmental psychology and age-based theories. They argue that these modernist theories present children as divided into categories; lacking and in the process of 'becoming' (see also Woodhead & Faulkner, 2000); provide norms which are perceived as universalised and natural (work to include and exclude children); present development as linear and compartmentalised (physical, intellectual, emotional, social); and use these ideas to explain children's behaviour and to describe appropriate and inappropriate practices and environments for children (Bredekamp, & Copple, 1997). Cannella (1997) argues that it is timely to critique these ideas; she questions these theories of development:

as a socially constructed notion, embedded within a particular historical context and emerging from a distinctive political and cultural atmosphere, and based on a specific set of values. (p. 45)

How we see a 'two year-old' in New Zealand, and what we feel or believe is best practice and the best environments for a two year-old, is an outcome of these ideas. Bloch and Popkowitz (2000) describe the theories and outcomes of child development and educational psychology as working to govern teachers' and parents' mentalities in both how they perceive children and for the consequences of the development of today's pedagogical practices (pp. 20-25). One of the reasons that may account for the anxiety and concern at two year-olds attending kindergarten, under the kindergarten's current structural arrangements, is the concerns about the abilities of two year-olds which informs much of our thinking about children in this age group. This raises an interesting point for reflecting on how the discourses of 'ages and stages' are still dominating much of the discourse of what constitutes 'good' or 'bad' practice - working as regimes of truth in early childhood education.

Exploring these notions of 'being two' - what this means for children, teachers and parents, has been central to this project.

Methods

The research project was divided into two phases. Phase One was undertaken over 2004 and was finished by April 2005, and Phase Two was completed by February 2006. In both phases the same methods were employed, to enable us to compare the experiences of the children between phases, and to observe any changes in practices or perceptions by the teachers over the two years. As mentioned earlier, this comparison between Phase One and Two was not possible in Wellington.

Ethics

Ethical approval for the project was applied for and received by both Victoria University of Wellington and Otago University. The complete ethics applications were also provided to both the Dunedin and Wellington kindergarten associations for their own consent and approval processes. In Dunedin the association require police clearance for all researchers in their kindergartens, and all our employed research assistants, as early childhood teachers, already fitted this criterion.

Procedures

Kindergartens

To be eligible for selection as case study kindergartens enrolments of under-three year-olds in their sessions were required to be substantial. Additionally, the teachers had to be interested and willing to be involved in reflecting on their philosophies and practices, and to take a leadership role in this issue within their association. Importantly, the kindergartens also had to be identified as already demonstrating exemplary practices with two year-olds in their programmes.

Eighteen case study children (three selected from each case study kindergarten in 2004 and another three in 2005) were selected on the basis of their age (the youngest at the kindergarten), their frequency of

attendance at the kindergarten (that is, ideally a regular attendee), and their parents' willingness for their child to be included in the study. We relied on the teachers to determine which child (and their family) would be invited to participate. Once identified, each family received an information pamphlet (see Appendix A) and were able to talk with the teachers and the researcher about their family's participation in the study. The child was only included when we had received the parental consent.

The parents at the case study kindergartens were also given the opportunity to express their wishes for their children to NOT be included in any data gathering that was happening in the kindergarten, by indicating that they did not want photos or video recordings made of their children while they are playing. These children were then understood as NOT consenting to participate (see Appendix A).

Choice of case study kindergartens

One of the interesting consequences of starting children at kindergarten at a very young age is that it provides a very stable group of children for a maximum of three years. A slower turn-over of children means that the waiting-list cohort gets older while they wait for a place at kindergarten. This then leads to an older starting age in the subsequent cohort of children.

This phenomenon affected the start of our project at the beginning of 2004. In both Dunedin and Wellington, the two kindergartens which had been part of the original project proposal had changed situations and no longer had enough two year-olds to enable the project to begin.

New kindergartens were thus approached in both project locations: In each site, we sought one kindergarten from a low decile area and another from a middle to high decile area to provide different contexts for consideration.

Dunedin

The two kindergartens in Dunedin each had afternoon roll group sizes set at 30 children and both kindergartens had substantial two year-olds over both 2004 and 2005.

The teachers were initially approached by the Dunedin Kindergarten Association, and followed up with a call and visit from Judith Duncan with information sheets and consent forms (See Appendices B & C). Once both kindergartens had agreed to participate, the study began.

Kindergarten A (nearest school decile rating 2)

This kindergarten is situated in a low decile area in one of the older areas of Dunedin. The kindergarten has two trained teachers and uses equity funding to access 9 hours per week of additional teacher support to assist with ratios. The head teacher had taken the further initiative of applying to the Community Grant Organisation (COGS) for additional staffing to support Te Reo Māori with the children in the kindergarten. A successful application meant that a native speaker of Māori worked part-time in the programme with the children on a renewable annual basis. Consequently, this kindergarten has a distinctive bi-cultural strength.

Falling demographics within the Dunedin Kindergarten Association had resulted in changed hours of operation for some kindergartens (for further details see Level Four analysis). Over 2004, this meant that two teachers from other kindergartens were also present at the case study kindergarten for designated periods. These teachers supported the afternoon sessions on different days - one as a 0.1 teacher (one afternoon a week) and one as a 0.2 teacher (two afternoons a week). While the head teacher perceived these staffing positions as a help with the under-threes in the programme, none of the teachers were clear about how long these positions would be supported, nor whether there would be any consistency in who teachers filled these positions over time. As it turned out, these concerns were well-founded, as the staffing changed throughout 2004 and was removed by 2005. Interestingly, at the

time that the staffing was removed, the group size of children had increased slightly from an average of 17 to an average of 20, so there was no direct correlation between the numbers of two year-olds and the additional staffing component allocated by the Association.

All the teaching staff in the kindergarten were fully trained and registered early childhood teachers.

Kindergarten B (nearest school decile rating 10)

This kindergarten is situated in a high decile suburb in Dunedin. It has two teachers and a roll group size of 30, but in 2004 the actual enrolments were considerably lower (highest enrolment of 24 over the observation period). This had changed in 2005 however, with enrolments close to 30 most days.

The teachers had established strong relationships with the families at the kindergarten. Both were trained early childhood teachers with experience within both the Kindergarten and Education and Care sectors. One teacher had a background which also included some primary teaching (and qualifications), and had spent seven years in early childhood teaching. The other teacher had a combined early childhood experience of 26 years mostly in the kindergarten sector, and a Bachelor of Education (ECE) degree in addition to her kindergarten teaching qualification. At the beginning of the study in 2004, both teachers were relieving in their positions. By mid-2005 when Phase Two of the project began, both teachers had permanent appointments. These contexts impacted on the project and will be discussed later.

Both kindergartens had preservice teachers on teaching practice postings over 2004 and 2005 while observers were in the kindergartens. This made a difference in terms of teacher: child ratio in the observations and on reflection, did not always adequately capture the interactions that would have been possible without the extra adults present. However, it

did support the teachers' to spend more time with particular children and this would be normal consequence of preservice teacher participation in the programmes.

Wellington

Kindergarten C (nearest school decile rating 3)

This kindergarten is situated in a low decile area in one of the older suburbs of Wellington. The kindergarten is situated in a multi-cultural community and at the time of the study nine different ethnic groups were represented on the roll.

The kindergarten is licensed for 43 children and has three teachers. At the time of the study staffing arrangements were changing with one teacher recently returned from leave, one teacher who was relieving and the head teacher who moved to a different kindergarten towards the end of Phase One of the project. The kindergarten did not regularly have high rolls of two-year olds but accepted two-year olds when there were no three or four-year olds on its waiting list who were ready to start. An advertisement for vacancies displayed on the kindergarten noticeboard said: "Vacancies for 3 & 4 year olds! (and sometimes 2 year olds)". The kindergarten became part of the study because it had the required number of two-years enrolled at the time that data gathering for Phase One. It also had a similar decile profile to Kindergarten A in Dunedin. Unlike the Dunedin kindergarten, however, the three case study children were between two years eight months and two years ten months at the time that we observed them. This is typical of the starting age of two-year olds in Wellington kindergartens but very different to the starting ages of two-year olds in Dunedin

The age structure of children in this kindergarten had changed by the end of Phase One of the study, and this, combined with the change in staffing required a shift of the case study to a different kindergarten. One of the teachers continued to participate in the cluster group meetings with another attending some meetings.

Kindergarten D (nearest school decile rating 10)

This kindergarten had been involved in our original study proposal but had been unable to participate in Phase One as the data gathering period coincided with a time when there were not enough two-year olds on the roll to make participation viable. The teachers in the kindergarten had attended the cluster group meetings in Phase One and were very keen to become a case study kindergarten for Phase Two.

Kindergarten D enjoys significant community support with its activities as well as daily parental presence in sessions. The three teachers in the kindergarten are very well-established members of the community and know many of the families in the area through having had older siblings in the kindergarten. During the observation period two students from different teacher education establishments were present for a number of weeks at a time and the total number of adults present for the full afternoon sessions varied over the whole period between five to seven adults.

The kindergarten is licensed for 30 children in the afternoon and during the observation period, attendance was between 21 to 26 children. The additional parental presence during most of the mat time sessions that started each afternoon was often as high as 10 parents. The kindergarten frequently had two year-olds in its afternoon sessions and had one of the highest numbers of under-threes enrolled within the association. In common with all the other kindergartens in the Wellington region, however, these were all aged closer to three than two-years. In this respect, the profile of this kindergarten was dissimilar to that of Kindergarten B in Dunedin but similar to it in other respects.

Observing in the Kindergarten

The observers, who were not the teachers in each kindergarten, spent 4 to 5 sessions in each kindergarten familiarising themselves with the environment and building up a relationship with the staff and the children. Over this familiarisation period the researcher made notes on the design and layout of the building, and any other environmental assessments.

Observations were then carried out on selected case study children at each kindergarten.

Case Study Children

Within each case study kindergarten three children (total number 18) were selected for observation by the researcher and for discussion and documentation by the teachers.

The children were selected on the basis on age (in Dunedin two years and zero months to three months), and in Wellington, their youngest children, usually two years and eight to ten months), regularity of attendance and parental consent.

Each child was observed for a total of 4-5 sessions which were spread over 1-2 weeks. The observation times varied with the structure of the session, the events of the day and the requests of the kindergarten teachers. The methods used to gain information on the children were:

- Field notes – which took the form of a continuous narrative record of the child with as much dialogue as possible;
- Digital camera photos – focusing on interactions and other examples being captured in the field notes;
- Limited video recording (using the digital camera) – with focus on joint attention and speech interactions of the children.

Within the case study kindergartens we observed the experiences of the children in the settings, the interactions between the teachers and the children, and the children with each other. We were particularly looking for joint attention and responsive relationships. As from previous research shows, these are two of the key factors in positive outcomes for children (Rolfe, 2000, 2004; Smith, 1999). We also examined the physical environment and its layout for impact on the experiences of the under-three year-olds.

A parent of each case study child was interviewed over the same time that their child was observed (in most cases within a few days of the final observation). The focus of the interview was around the following topics:

- i. Initial expectations from their child's attendance at kindergarten;
- ii. Current perceptions of their child's experience in discussion of the photos taken by the researcher; and
- iii. Current expectations for now and the future. (See Appendix D)

In all cases the parent interviewed was a mother (with only one father being present for a short period of an interview) and the interviews were carried out either at the kindergarten or the child's home. At the completion of the interview the parents were given copies of all the photos of their children (presented in a specifically constructed photo album), and some of the key observations were shared with them.

The kindergarten teachers contributed to the information on the children and their teaching practices by:

- Compiling pedagogical documentation on the case study child, with a particular focus on the research timeline;
- Keeping a reflective practice journal whereby they began to reflect on their work with the under-three's in their session (in 2004 only);
- Participating in interviews on their perspectives on the case study child and, more importantly, on their reflections on the observations and notes made by the observers on the child and their teaching practices.

At the end of each observational period the observer and teachers engaged in a reflective interview based on the observations recorded by the observer, the notes made in the reflective journal by the teachers (2004 only), and any documentation the teachers may have recorded themselves for the child's profile over this time. The interview prompted

the teachers to explore what they knew about the child, the child's experiences, and their plans for the child. A second interview was also held to get feedback on the combined observation notes when all the case study observations were complete. This was a reflective interview which allowed the teachers to interrogate their own interactions and practices with children (See Appendix D).

The reflective journal (see Appendix E), which had been seen as time consuming in 2004 was removed in 2005. However, later in the study, the Dunedin teachers who were involved in both phases of the project, began to see this as a key link that had helped their reflection and sense of 'knowing' the child in Phase One. The act of writing something each day about a particular child had assisted their feelings of 'knowing' the child in a way that no longer occurred without the journal. The Dunedin teachers commented:

[A]t the beginning we were writing a diary on the child and what they'd done during that session, from our point of view, and I wonder too if that was one way that we got to know that child particularly well [Phase One]. Whereas it was not something we've done this time around [Phase Two]. We talked about that as being perhaps the reason why we haven't known the child, but also that was really time consuming because every afternoon that that child was observed we had to write quite a detailed bit about what that child had done or what we had seen and yeah, then discuss it.

AND

We did get to know those three children extremely well and writing the diaries was - was, I think, really good because you reflected each day. We wrote it up at the end of that day, so we reflected on our experiences with the child that day. We were working in a quite different environment because two teachers - one's inside, one's outside - so our reflections were quite different in that respect of our observations of the child. And also our reflections of the day, as such, how things had gone and maybe some things that had impacted on the day. How we - just how we felt about the day.

Another teacher summed up:

And this came through quite strongly [the value of the diary] so even though these were not carried on for the second year, in hindsight, they were probably quite a valuable tool. So there's a pointer for the next time you do research.

A final interview was held at the end of each year in 2004 and 2005 to support teachers to reflect more widely on their overall kindergarten practices and philosophies which impacted on the children in the kindergarten. These interviews proved to be an opportunity for the teachers to reflect on policies, structures, routines and personal beliefs that shaped their every day teaching and impacted on all the children - not just the case study ones.

Together these methods enabled the kindergarten teachers, along with the observers, to reflect on the experiences of the case study child, the pedagogical practices in each kindergarten, and the wider contexts of teaching and learning within each case study kindergarten.

Professional Development Cluster Groups

Alongside the case study kindergartens, cluster groups of kindergarten teachers were formed in both Dunedin and Wellington. The teachers who joined the groups were from kindergartens that had under three year-olds in their sessions. The purpose of the cluster groups was to build a shared discourse amongst the teachers about, and around, working with two year-olds. The aim was to create a community of learners and a community of practice within kindergartens for two year-olds. Judith and Carmen facilitated these groups and used the sessions to discuss the teachers' current perceptions and to encourage critical and reflective practice. The teachers were given readings and homework assignments to support their thinking and the group discussions (See Appendix F). In Phase One two sessions were held in each area, and three were held in Phase Two. In Dunedin sixteen teachers regularly took part in all of the cluster groups (including the teachers from the case study kindergartens). In Wellington the number of teachers who attended varied between twelve and six.

The key development in Phase Two was that it was envisaged that the teachers from the case study kindergartens would take a stronger lead in the cluster groups and thus enable the community of learning to continue past the life of the project. In Dunedin, the case study teachers led two sessions - one in 2004 and one in 2005, with teachers from both kindergartens discussing their reflections on participating in the project and what this had meant for their perceptions and understandings of their two year-olds. In Wellington, this aspect of the cluster group method was adjusted due to the discontinuity in case study kindergartens between Phase One and Two. Instead, the cluster group meetings functioned throughout as a venue for exploring teacher experiences and understandings about two year-olds in kindergarten, as well as a forum for exploring macro influences on this.

At the final cluster group a small questionnaire was administered to gauge the impact and usefulness of the cluster group sessions for the participating teachers (see Appendix G). In Dunedin 10 of the 16 were returned. In Wellington, teachers chose to give oral feedback during the final cluster group meeting and two kindergartens supplemented this with written feedback.

Kindergarten Association Survey

By mid-2004 we had become increasingly aware that the national picture of two-year olds in kindergarten was largely unknown. Conversations between Carmen and a number of North Island associations revealed that the reality of kindergartens in different associations was likely very variable. This was confirmed when early in 2005 Judith spoke at a senior teacher hui in Wellington where strong interest was expressed in the initial insights from Phase One of our study. In response to this awareness, we developed a survey, with assistance from Julie Lawrence (Postdoctoral Fellow at the Children's Issues Centre). The survey was designed to capture a sense of the national situation of two year-olds in kindergartens: we were interested in the number of kindergartens with

two year-olds and in identifying the issues or challenges that kindergartens were facing. The results of the survey have enabled us provide a wider context for our findings. The survey findings are also valuable as a stand-alone resource about the current context of two year-olds in New Zealand kindergartens. We had intended that the associations would be followed with phone interviews with Senior Teachers but due to the timing of the return of the individual surveys (late in 2005), this additional step did not occur.

Design of the Questionnaire

The survey questionnaire was designed as a postal, self-completion survey and it was estimated to take approximately 10 minutes to complete. It consisted of 19 questions and was a combination of demographics, selection of key factors for each association, and opportunities for respondents to add additional comments.

Pilot of questionnaire

The questionnaire was piloted with two associations, and small changes were made to clarify the questions before they were mailed out to the other associations (see Appendix H).

Survey methods

In October, 2005 the survey was sent to 32 kindergarten associations throughout New Zealand, addressed to the General Manager of each association. In December a reminder (by letter and phone) was sent to those associations who had not returned their questionnaires and by the end of January we had a total of 29 returned (91%).

Analysis

The computer package SNAP was used to both construct and analyse the data. (See Appendix I for full report of survey data).

4. How the project contributed to building capability and capacity

Capability and capacity building within the project team

The capability and capacity building in this project occurred at many different levels and times across the project. We built this project around the kindergarten teachers (in the case study kindergartens and cluster groups) and other early childhood teachers for our other research tasks. All researchers within the kindergartens were early childhood trained professionals. The support for the cluster groups in the form of note taking was undertaken by a preservice early childhood student (Dunedin), and a research colleague who has considerable experience in early childhood research (Wellington). The literature review was also undertaken by a trained early childhood teacher. The survey of associations was administered by a postdoctoral fellow with the Children's Issues Centre, who has considerable work and research experience in the early childhood sector from a health and social work perspective. The combined skills of this research team has added to the depth and validity of this project and also has added to the research skills of the teachers, who are emerging researchers and early childhood teachers.

Those involved share their experiences of this study:

The Kindergarten Teachers

Michelle, Penny, Rosalie, Jan and Helen

(transcribed and edited from presentation at *the New Zealand Association for Education Conference*, December, 2005)

Michelle:

I'm going to start with becoming involved in the project. It was an interesting beginning. We first received a fax from the senior teacher at the kindergarten association asking us how many children under-three we had in our programme. Little did

we know when we replied that Judith had a cunning plan and we very honestly replied and soon Judith arrived armed with many consent forms for us to sign. And as a part of that she talked to us about what the research might look like in terms of observations of children and what we would expect as teachers in being part of the project.

As a part of that, she did say at one stage that she would be reporting any bad practice that she saw, both professionally and personally, to the kindergarten association and that absolutely terrified us. My mind boggled - I just wondered what this bad practice was going to look like. And I kind of thought well: we're a two-teacher kindergarten and perhaps when Penny was outside with a group of children and I was on inside, maybe it would be something that would happen when I was perhaps changing the child in the bathroom, or something. And I couldn't quite figure what it was going to be, but it was all a little bit scary. We did sign those consent forms.

Penny:

The next part was the building relationships. We were a wee bit scared of Judith at this stage, and perhaps what she was going to find.

And she'd stated too that she wanted to be quite anonymous and not interact with the children because she wanted to observe. So the children found that quite hard because they're used to having those reciprocal relationships where people keep talking to them and Judith didn't want to. And often we would get a 'pointing over' at a child from Judith to indicate that she wanted us to come and deal with the child so - so it was very interesting. So we had lots of finger-pointing that a child needed attention. But, however, after a few sessions Judith became part of the kindergarten environment and the children reacted very quickly to knowing that there was no use going to Judith because she generally didn't help them so. Well, she didn't actually talk very much, because she was always busy writing. She did a lot of writing.

So after a while we even started looking forward to Judith coming and she then started to bring her own lunch and we would have wonderful conversations and discussions over lunch, which was really great so we looked forward to that too.

So the next part: being part of the project. Being part of this project has allowed us to build up really strong relationships with the children that were being observed because we did a very comprehensive diary, a daily diary. Mainly about the day and how it had gone and then particularly about the – the child and the interactions that we'd had during that time with that child. So every afternoon we had to sit down, write up a couple of paragraphs about the day and then the information that we had about that child. So we became very familiar, very quickly with these children and remembering that these children were two-years - and sometimes one day - that they started at our kindergarten. They virtually started on their birthdays. So they were very young. So we were pretty focussed on these children. We really got to know them and realised that these two year-olds were very capable and very confident. It was our first experience with working with two year-olds, AND a large number of two year-olds. So each day that we were being observed we felt quite stressed because our actions and our words were being recorded, especially if we were near that child.

Michelle:

I also had, what Judith calls the 'researcher effect' on relationships, while the children were being observed. In the second phase of the research I began to examine my motives for interacting with children and I would ask myself: Am I going to interact with this child now because Judith's here and I haven't had an interaction with this child yet today? Or am I going to interact with this child because I see the need for it, at this point in time, with what they're doing? I'd also examine how many interactions perhaps I'd had with the children of the group, as such, because we had a larger number of children in our afternoon session at that time and I really wanted to have some equity for the children that she was observing at the time. So that became quite difficult for me to determine. When I should and shouldn't interact with the children? Whether I was doing it purely because Judith was there, or whether it was authentic? And the more I queried it, the harder it became for me to determine whether it was authentic or not.

As Penny was saying before we found that the children under-three were really capable, competent children and we certainly learnt a lot during the project and the following interactions.

Rosalie:

Let me just start with this little introduction, which is how we felt as a team, being part of the research, the good, the bad and the ugly. There wasn't too much of the ugly. Some of it was, not good - the percentage of two year-olds in our kindergarten are half to two-thirds two year-olds. And this has been the case for several years now, probably since the introduction of bulk funding where there was great pressure on us to keep our roles at the maximum number. So the day they turn two, the day they start. And most of our children do start in the afternoon session, at two. So that's a lot of little poppets around the place. So we certainly met the requirements for the research.

We've had two researchers with us, we had Helen Duncan in 2004, and Jessica Tuhega in 2005. Both of these people were trained early childhood teachers, and had worked in kindergartens and early childhood centres. So very aware of the type of situation they were coming in to. They were very competent, very easy to work with. We did have a lot of laughs and it was very easy for us to forget they were there and just carry on managing the session. They were very non-threatening. With that number of two year-olds you don't have time to think too much about other people - adults - they can look after themselves.

We found that probably one of the things that was a bit more difficult was the interviews. In the first year, in 2004, the interviews were at the end of each child's observations and these were at the end of a double-session day, initially. And they went for about an hour and trying to get our brains concentrating for that length of time was very, very difficult. We were very tired. So the second year we changed it to a non-contact afternoon after lunch and we were a bit more on task at that stage too.

Our involvement: reflecting what Penny and Michelle said, it was probably a lot more work than we actually initially thought. Judith sort of eased us in very gently there - the workload did

increase quite dramatically from the first impression. The reflective journals were an extra task at the end of the day. But they were great for all of us, the adults there, to be able to compare what had happened with these children during the session, how they matched with the person observing, who was just doing total observations of that child the whole session. And we did find that, even though we may not have had a great number of interactions with that child, we were certainly aware of what they had been doing and where they had been during the afternoon. And this came through quite strongly so even though these were not carried on for the second year, in hindsight, they were probably quite a valuable tool. So there's a pointer for the next time you do research, with somebody else - hint, hint.

The observation drafts, which were books on each child that we read - they certainly affected our practice. We were looking at each child through the eyes of an observer who had just been totally focussed on that child. And there were things that we thought we knew about that child but sometimes we didn't, we weren't aware of. So that certainly was very valuable for us. A lot of these children had no language, being just two, it was somewhere between a baby talk and forming proper words. They sort of had a wee language almost of their own and they were very non-verbal cute. But what we felt was quite amazing was that they understood each other. We didn't understand what they were saying, quite often, but they actually understood each other very well. And they would say: this our ga aye aye. And they'd nod and off they'd go. They certainly managed to make themselves understood.

We have learnt a tremendous amount about the two year- olds in our sessions. We did, well, we thought we knew quite a lot about them, but it's opened our eyes a bit to what was actually happening for these children. I think that the statement: 'it's not about knowledge for knowledge sake' but using theory, and knowledge for change and bring about change at a practical level, summed it up for us. And that's what I think, is where we're heading next, is the practical level.

The research: how does that impact on our present situation? We hope it's going to have some very positive outcomes for two-year olds in the future that it is going to go through to the

powers that be and they're going to take some notice of what has happened.

Jan: *We had time to reflect with the journals and also in our clusters and in our little meetings on the Wednesday afternoon. And through that we've had to make some changes in the kindergarten.*

WELLINGTON KINDERGARTEN TEACHERS commenting on their participation in the research: transcribed from exit interview

Teacher 1: *I think it has been quite a thing to draw us together in some ways. We've kind of recognised each other's value as a team. You read through the observations and we're doing the very best that we can given the resources that we've got and the time constraints and everything else, all the factors. We really do want to do our best for the children, but it doesn't mean that we don't get frustrated, or that we don't find times that we could say "Oh, I could have done that better". We all have times like that and wish that we could be there in a slightly different way for the children.*

Teacher 2: *We acknowledge and we don't beat each other up over these things because we know we're all learning and we're all on that journey.*

Researcher: *When you say these observations and our discussions have made you see and value the others, is it because..?*

Teacher 1: *We don't see each other*

Researcher: *So you see each other in the notes now.*

Teacher 1: *Yeah, you sort of act in isolation otherwise. We don't really know .*

Researcher: *So these notes have been helpful.*

Teacher 3: *Yes. Because you don't know what the other teacher has been saying to the children, you don't know what's going on. You have a cross-over and you have a few minutes and you're aware that you've left outside unattended so you quickly say what you've been doing . We're all at different places so it's not like we're interacting with each. So this has been good.*

Teacher 1: *Yes and it was good getting together with the other groups, the cluster groups. Just seeing how the environment and the community [make a difference]. That was really interesting.*

Researcher: *Can I ask you from the whole experience of being involved in this project, have you got some insights about how you might be able to answer the question of “Do you know me .”*

Teacher 2: *Oh yes, it’s that whole thing of being together, but apart we might not [be able to answer].*

Researcher: *So that ties back to your other comment you made earlier. That seeing each other’s practices in the observations is really quite helpful.*

Teacher 2: *And even though it’s not always realistic being able to find time to get together, to talk about the children is hugely important.*

Teacher 3: *Especially in the afternoon when we don’t have time to do written observations. Well, hardly ever. There’s no use even getting a pen out of your pocket really. You just have to have stuff in your heads that you can share with each other – because we pretty much only do the event recording in the afternoons.*

Teacher 2: *I was thinking, if I had a photo I could remember some narrative observation and then we’ve hardly taken any photos.*

Teacher 1: *We’ve got no time to find the camera! (laughter).*

Researcher: *So I suppose what you’re saying is that is really valuable to have someone even on the outside come in and do some observations.*

Teacher 3: *Yes it is actually. And then we’d be able to talk about them together.*

Teacher 3: *What it’s made me very aware of is the fact that you have to be really focused on your role, your professional role with those children, more so than in the morning, because it’s only you out there, and you’re juggling all these different things happening around you, and there’s no time for any of your own personal thoughts to come in and intrude and you can go through the motions of doing your job*

as a teacher outwardly and look like you're doing it, but you're not taking in the information that is coming at you from the children and their experiences unless you're fully present and fully focused on that and it makes your job much more enjoyable if you are. And you are necessarily forced to be in those afternoon sessions because the nature of your situation forces you to be in.

Teacher 2: *It utilizes every aspect of your personality, your energy, your intelligence, your ability to get on with other people. That's quite nice that – its quite nice being used.*

Teacher 3: *I think it's also really good for the parents to see that research people come and use our centre for research. I mentioned that at the last committee meeting and they quite liked it.*

Teacher 2: *It feels quite a privilege. It's really reassuring to know that you're sending your child here: so it must be alright if people are doing research here. Gives it a bit of kudos.*

Early Childhood Teachers' Research Reflections On Being Involved In This Project As Employed Research Assistants:

Kerry Cain - Wellington: Observer and Researcher in Kindergarten in 2004

Taking part in this research was a huge learning curve for me as I was very much involved in the grassroots of the research; observation and interviews.

Interviewing was the most challenging part of this research for me. I read lots of information prior to the interviews and practised asking the questions in different ways, but nothing prepared me for the intensity and nerves as these interviews took place. I improved towards the end but felt that I still struggled and was very conscious of leading the respondents. Having been told several times that the teachers wanted the research to be over certainly exacerbated my struggle. The interviews with the parents I found much more relaxing towards the end and I began to realise just how important face-to-face interviews are in this type of research.

It was quite an honour to have completely uninterrupted time observing individual children, (an opportunity that rarely presents itself in my work with infants and toddlers). The first challenge for me was to distance myself from the children and to remember that my role in the kindergarten was primarily as a researcher as opposed to a teacher. There were certainly many times when I strongly felt the urge to speak to or acknowledge a child, particularly those occasions when authentic praise or understanding was required. I finished these observations feeling quite in awe of the learning experiences I had witnessed. For my own part, based on my observations, I felt that meaningful interactions with the key children were limited. My role in this research certainly validated my belief that sensitive observation of children is vital in order to enhance the relationship between teacher and child and to provide meaningful learning opportunities.

Helen Duncan – Dunedin: Observer and Researcher in Kindergarten in 2004

The opportunity to take part in this project as a beginning researcher was a fantastic learning journey for myself. I really enjoyed working with my kindergarten team and families. I have a huge respect and admiration for the teachers who let me into their kindergarten and their reflections. Their honesty and commitment to the project was very evident. This in turn inspired me in my position.

The leap from teacher to researcher was a comfortable one. Having my tools (video camera, notepad and camera) by my side was helpful to me to define what I was up to. During the course of the research my skills in observation and analysis improved immensely. I loved the fact that by observing the child and then talking with the teachers and families I had a 360 degree view of what was happening.

By being able to closely track children through their session at kindergarten opened my eyes to the reality of being a two year-old in session. Often as teachers we are so busy in the programme we only observe a small segment of what is going on for the child. I was learning about the reality of the kindergarten child's session from the child's perspective. The use of photos in the research was incredibly helpful in terms of gaining information from parents and teachers.

My contribution to this research sparked off an interest to continue my own practitioner research. I have undertaken some small research projects based on children's self-assessment and hope to do more in the future. A big thank you to Judith and Carmen for their inspiration and sharing of knowledge.

Jessica Tuhega - Dunedin: Observer and Researcher in Kindergarten in 2005

Participating in the 'Under-Three year-olds in Kindergartens', contributed to my own skills in a range of ways. It helped to build upon my knowledge about how research is actually

conducted. It allowed me to participate in the early childhood world with a different hat on, as a researcher I was able to take on a role with no responsibility and just observe children's everyday interactions, which has definitely informed me as a practitioner as I am now more aware of our own under-three's within the childcare environment I work in and have been more reflective in my own joint interactions with them.

Participating in this research also allowed me to develop and try out new skills like interviewing people and the techniques associated with obtaining as much information as possible without putting words or ideas right in front of the person. I really enjoyed the interviewing. And I also established some good relationships with the teachers while out in the Kindergarten.

I was also challenged and extended technologically, with the input of data using the Mac computer, taking photos, using video recording equipment etc. I think the most important lesson I learned technologically is to always test the equipment before the interview and make sure I have all the correct switches on so it actually records!

I think my greatest disappointment was that I was not able to finish off my contributions due to time and financial constraints.

Overall, I really enjoyed working as a research assistant in this project and would love to work with Judith again.

Karen McCutcheon – Project literature review

I guess one of the main things that I came to realise is that working full time, studying and participating in a research project is very tricky. It is hard to split time and priorities three ways and keep your sanity! Therefore, in some ways, I feel that I could have made a more valuable contribution if I had a little less on my plate, so to speak, and had more time to commit to making the research my priority and focus. However, in saying that, I found the process very valuable. I learnt a lot about the process of tracking down and making sense of a wide variety of previous research related to the current proposal and how

important and valuable this is in placing the research proposal into the context of thought and practice in early childhood education both in New Zealand and in other countries. The process of building up the picture that provides the background and context of the research is quite exciting but you do need plenty of storage space to maintain the paper trail! This process also enabled me to reflect on my own practice in early childhood education and still gives me pause for thought today as the information discovered remains memorable.

It would have been very valuable to have remained an active participant in the research until its conclusion. Unfortunately, financial constraints and employment did not allow this to happen and this is my biggest regret.

Overall, it was a very worthwhile experience and I feel that I now have a better understanding of the process of undertaking research and the time and commitment involved. It has certainly inspired me to consider further study and the possibility of undertaking my own research study in the not too distant future.

I am really looking forward to the completed research and it has been a really inspiring experience.

Renate Simenaur – Dunedin: Cluster group support, note taking, and literature searching 2004-2005

When I began work with this project I had been involved in research as a science technician or research assistant for years but without clear direction for my future. At the beginning of the project I helped by doing literature searches and came across many early childhood education articles which captured my interest and ignited a passion for the field. It was this work that exposed me for the first time to the important issues of early childhood education. Through helping with the cluster group meetings I gained insights into kindergarten teachers' practices and perspectives and became more comfortable engaging in reflective dialogue with early childhood professionals. Of further benefit were the professional readings, and the discussions with researchers and senior teachers before and after the meetings.

Project involvement inspired me to study for the graduate diploma in teaching (early childhood education), and helped me to do very well. Due in part to the impact of assisting with this research, I am now a passionate and dedicated early childhood teacher, looking forward to combining teaching with further post-graduate studies and my own research.

5. Findings

Level One: The learner engaged with the learning environment

Introduction

Our focus for this level was on identifying and describing the children's learning experiences within the kindergarten setting as these emerged from their interactions with:

- the environment, both at the physical level and at the level of rules and routines;
- the teachers and other adults in the kindergarten; and
- the other children.

Data for this level of analysis includes written narrative observations of case study children, video excerpts of joint attention sequences between children and adults and other children and interviews with the teachers and parents.

Learning about the environment

The physical environment was a source of much delight, exploration, as well as a challenge for all of our case study children. On the positive side, we observed the keenness with which most case study children tried out equipment and materials, experimented with their use and generally reveled in learning how to use their new environment.

Within this, children exhibited their own style of engagement with the environment, with some earning themselves descriptions by the teachers that reflected that style: for example, as "a runner" or a "thinker", a "free spirit" or as "a real observer not a flitterer". Our observations also showed that different kindergartens had a repertoire of 'settling-in' activities that teachers encouraged children to engage with at the start of sessions. For example, in one kindergarten, the teachers regularly guided their youngest children to the painting area as a settling-in activity. At the

same time, there was flexibility for the children to settle into their own chosen activity: one child regularly put on a pair of butterfly wings immediately after depositing her bag on her hook and settled at the collage and painting area; the butterfly wings stayed on till it was time to go home. On the other hand, the child described as “a runner” rarely took up painting when this was suggested and spent most of his time following his mother around until she left after mat time; subsequently, he spent most of his time “haring around outside” exuberantly.

Difficulties and challenge of the physical environment

When my legs get longer

Parts of the physical kindergarten environment posed difficulties for the children. For example, several of the just two year-old children in Dunedin were unable to get themselves on and off the chairs independently. One teacher had noticed that the two year-olds often stood (where an older child might sit) at an activity for this very reason: “which is a good strategy to have too that - [they’ve] realised, ‘well I can’t get on, I’m still going to do the experience.

The outdoor environment, in particular, posed difficulties for the under-threes. In both Dunedin and Wellington kindergartens, climbing onto the tyre swings in the outside area, on gyogyms, or up metal climbing frames, were often not possible for the under-threes without adult help, as the children’s legs were literally too short. In most cases, the children overcame these difficulties through sheer determination; for example, tip-toeing on the bike rather than peddling to get it to move, and stretching on tip-toes to reach the hand towels in the bathroom. However, the teachers spoke about the adjustments that they made to the environment so that the children could gain a sense of mastery and success. Many of the adjustments were also necessary because an adult could not be close at hand at all times, particularly in two-teacher kindergartens, and the children needed to be protected from injury. Some of the

kindergartens had installed additional steps to enable the smaller children to use some of the outdoor equipment, such as the monkey bar or a slide.

Nonetheless, there were still areas in the environment and the programme that were problematic and that only 'longer legs' would help. The teachers themselves were often most concerned about the environmental safety issues in the outside environment due to the physical size of the two year-olds and equipment designed for four year-old legs not two year-old ones.

Learning about rules and routines

You know, I just thought there were many routines during the session that kept coming through and when you're only here for two hours there's a lot of routines: washing hands, eating your afternoon tea, putting your lunch box away, putting your bag when you come in away, sitting down for mat time, cleaning up. (Teacher reflecting on the observations)

It's time to

The case study children in all the kindergartens experienced repeated routines on a daily basis. Both parents and teachers saw these routines as important learning for the children, for settling in, and for becoming part of the programme. Teachers recounted numerous instances of this learning to us: for example, one teacher remarked in admiration - "Even now, at tidy-up time, she knows what's right and wrong and the rules of the kindergarten. She will come and tell you if someone's not tidying up or someone is doing something they're not supposed to be doing and she'll say if someone hasn't washed their hands she picks it up quite quickly". We too observed that in most cases the children adjusted very quickly to the routines of the programme – with some support from the teachers, and in some cases, the other children.

Afternoon tea time

Like the teachers, the parents commented on the routines of afternoon tea and mat time and measured their child's adjustment and settling into

the programme by their child's participation in these routines and acting like the 'other children'. As observers we were interested to note that on some days up to 54% of the afternoon session could be taken up with the 'routines' of the programme; for example, afternoon tea, tidy-up time and mat times. The teachers too commented on routines taking a large part of the session with one teacher noting that "by the time the children have got together at mat time, you've only got an hour and a bit"; this teacher felt that this made it difficult to "really see all [the children's] capabilities".

The case study kindergartens organised their routines differently from each other: some had a communal sit down afternoon-tea time part-way through the session and some had a snack table available throughout the session; one kindergarten had one adult continuously present at the snack table engaging children in conversation or reading with them. This kindergarten had a well-established roster of parent helpers and afternoon tea time duty often fell to one of these helpers. In another kindergarten, the afternoon tea time changed its routines between Phase One and Phase Two. In Phase One the children had a 'rolling afternoon tea time' and this allowed the children to choose when they participated in their snack. However, in Phase Two, an external concern had been raised as to the level of supervision that this involved. In a kindergarten with only two teachers it was not possible for an adult to be seated at the table the entire afternoon, and while a teacher was in the same area at any time, the concern led to a trial period where the afternoon tea time became a fixed seated time for all the children. However, this change took up a large amount of the afternoon session and involved the teachers predominantly in 'management' tasks, removed the independent choices for children and was seen to break up "those lovely little social groups" which had formed spontaneously around the afternoon tea table. The teachers reported:

So then it took so much of our afternoon, with only having the children two hours. And it is a neat two hours, it's tight: there's a lot happening in those two hours to actually sit down at two o'clock and gather them all up, ensuring that they've all washed

their hands and that they're all sitting down, because you've got say 20 some days, you know, there might be 26, 27 children all trying to go in and wash their hands. So it does become quite a long drawn out . One person had to stay outside because the children were coming out to be supervised so they had to sit there and observe those children, and the other person was in the bathroom and they would have to come out of the bathroom and collect other children from round the kindergarten, then get them into the bathroom to wash their hands and get their lunch boxes and then try and get them back out to outside because they would get lost on the way, in other areas. So that was quite a mission, so some children were actually finished afternoon tea, really, when others were just washing their hands.

Within a fortnight the 'rolling afternoon tea' was reinstated and the lunch boxes moved from the locker area to shelves beside the afternoon tea table, enabling the children to be more independent and self-selective. The teachers became less involved with managing lunch box and eating processes and more involved in conversational interactions with the children as they ate.

Mat Time

Mat time is a traditional event within kindergartens. Again, each of the case study kindergartens varied in their procedures for mat time, but mat time played a significant role in every programme.

For most of the under-three year-olds the requirement to sit down at mat time was initially a challenge and we observed that many of the case study children were initially inclined to stand up and move off to other activities. When parents were present, they frequently sat with their children in their laps and gently held them, often guiding their limbs in mimicking what the older established children were doing. Sometimes, it was the teachers who held the newer under-threes in their lap; we noted that in all cases teachers were generally flexible in how consistently they pursued the requirement for the youngest children to sit down. As one teacher explained: "we're more tolerant with the younger ones - we give them more leeway". Alongside this flexibility, teachers also used the fact

that the children were now at kindergarten to “up the ante” in their expectations of the children’s behaviour.

These techniques generally worked well to induct children in the expected ways of behaving at mat time, but we noted also that in kindergartens which did not have a number of parents present to augment the adult-child ratio, mat times easily became difficult when more than one child required focused attention. For example, one of the case study children regularly resisted sitting down to mat time. Normally, the teachers handled this easily and were able to eventually draw the child to the mat area. However, in one example, when resistance occurred at the end of one session, at the same time that two other children were noticed as missing from the mat, much time was taken up in finding the missing children and cajoling the child to sit down so that the children who had already sat waiting for story time, became restless. The teacher later described the session as “one really hectic day with quite a difficult mat time” which showed “how full on an afternoon mat time can be”.

In the Dunedin kindergartens, with large numbers of young two year-olds, the mat time was often a difficult end to the day. The mat time always involved two teachers: “We find it’s usually a two-person job. One person takes control at the back and the other person takes the mat time”. This was increasingly problematic for the two-teacher kindergartens, where gates as children were leaving also needed to be supervised, and parents often wished to speak with teachers at this time also. For these reasons in the Dunedin cluster groups the teachers began to question the mat times - but clearly discriminated between mat times for the younger and older children: “Oh no, I’m not criticising mat time, I’m just saying I think we have to reflect on our practices with two year-olds as opposed to what we do with three year-olds .I’m just saying, generally I think we need to look at what we’re doing with two year-olds”.

A first timer or an old hand?

For two year-olds who had a sibling already attending kindergarten, adjusting to the environment appeared smoother than for those children who were the first in the family to attend kindergarten². We observed that these children and their parents displayed an ease with the staff and environment that took longer to emerge in the children who did not have an older sibling who had attended kindergarten. However, for one child, the change of activities from the morning to the afternoon session caused some frustration: he was regularly observed standing in front of the turned-off computer which had attracted him in the morning!

Teachers too appreciated the advantages of settling in a child who was already familiar with the environment and with whose family they already had a relationship as “it’s not like starting totally with a clean slate having to establish that rapport”.

Interactions with the teachers

Our observations showed that the children varied in the amount and type of contact they sought with the adults at kindergarten. When they did seek contact, it was most often for assistance with difficult equipment or help with peer relationships. We identified that the case study children were often in the area near an adult, but did not initiate the contact with the teacher in the same way that the older children demonstrated. For example, older children would come up to show the teacher how well they could/did do something. With some notable exceptions, interactions initiated by the younger two year-olds were more common with another child – both verbally and nonverbally. One exception was a girl described by her teachers as “quite good at asking for what she wanted” and as “more confident with the adults than the children”; another was a boy who was very familiar with the kindergarten from having an older sibling in the morning session and he was described by the teachers as:

² Out of the 18 case-study children: In Wellington, five of the six children had an older sibling either at the kindergarten, or had attended the kindergarten at an earlier stage. In Dunedin, seven of the twelve children had older siblings either at the kindergarten, or having attended the kindergarten, were now at school.

Very good at establishing his own relationships with us, with each of us. He's quite willing to share information, his life, his views. He volunteers information which some children will take almost years to do.

Interestingly, for the children with an older sibling present in the same session, joint attention interactions with their siblings were more frequent than joint interactions with the teachers.

Watch out because I can't always tell you

In reflecting with the teachers about the observations they were saddened to notice how often they had either missed an event, or had misread a situation, which the child had not been able to correct them on. We found that the children often used other forms of communication – body language and eye contact – to share messages for help and assistance or guidance, but in the busyness of the programme these were often missed. The teachers themselves could see how they often 'talked' for the child and had missed the body language. And in other examples, the teachers had simply not observed an event happening to the child, and the younger child had not called for help or verbally attracted their attention. In group sizes of 30-45 children, with much verbal interactions occurring, these more subtle less verbal clues were often missed.

Interestingly, when teachers did initiate interactions with children, we noticed that the children often only responded if the teacher was in very close proximity to them and was in eye contact with them. A comment, as a teacher was passing by, was usually not picked up by the younger two year-olds as a comment directed to them.

The group size, and the small number of teachers available, also meant that teachers were often unable to spend more than a few brief moments with any one child and thus missed the continuity of children's experiences. One teacher expressed this as: "we just get like *moments* with each of them in the afternoons" and elaborated:

For example, we had someone this morning who wasn't happy for a fair proportion of the session. But the parent asked one of us who hadn't known that. She was told that the child had been happy all morning. And she hadn't been happy all morning. So we can only see where we are. And that's been a difficulty when there's just the three of us spread out.

Similarly, another teacher lamented: "You don't tend to see all of it".

For the teachers in Dunedin, where the group sizes had increased from below 20 children per afternoon to 20 plus, the amount and the quality of interactions possible had significantly reduced between Phases One and Two. The teachers themselves had noted this and felt that it was the result of the ratio of over two year-olds to under-two year-olds in combination with the larger group size. Comparing the children's experiences in Phase One observations with the Phase Two observations the teachers remarked:

You had time [in Phase One] to set up things for cars to come down and ramps and stay there and support it and support their learning and show them what to do. Whereas, now it would be set it up and – and deal with something else. So there isn't that time to give that sustained attention to, to encourage that further learning. I mean I feel like at the end of an afternoon session now it's like a whirlwind and it's like 'ooohhh'. You know, when you've got all this to do and it's suddenly three o'clock.

Successful sustained interactions between teachers and the two year-olds did however occur in all the case study kindergartens. Usually this happened at activities where a teacher stationed herself for a particular activity for period of time and to which various children then gravitated. In one kindergarten, this happened notably around the outside carpentry table which for one of the case study children became one of the few places of sustained non-mobile activity. For this child, the most noteworthy behaviour was his constant movement which led his teachers to describe him as a "runner" and to comment: "He doesn't really stop for anyone does he? He just kind of carries on people are like trees and things. He doesn't really notice people as being people he's not interested in us really." Working at the carpentry table enabled this child to have some sustained contact with one of the teachers who guided him

in choosing a piece of wood, sawing it as it was held onto the bench with a vice, and then hammering nails into it.

On other occasions we noticed that joint attention sequences happened when teachers had observed a specific interest in a child and deliberately worked with that interest to establish more contact with that child. An example of this was when a teacher took time to look over a child's portfolio with him after she observed him pick it up and when another teacher started a session by asking a child about a traffic accident that had happened in the locality of the kindergarten and close to where the child lived. For another child, an extended joint attention sequence with a teacher happened throughout a swing-pushing sequence in which the interaction ranged from swings at home and in parks to face-painting, names of children at the kindergarten and fun around slipping through the tyre-swing.

Where are you - I'm here

The teachers were aware that for the younger children, the physical environment of the kindergarten, could feel very large. One teacher said "it must seem such a big place for them" adding that in looking at a case study child on one occasion "I was thinking how little she was at the painting". This size of the environment, and the relative few adults in the environment, was for most of the children in this study, a new experience. In two of the kindergartens we observed several of the case study children scanning the room and then calling a teacher's name, or standing at the door to the outside environment and calling a teacher's name. On reflection on this regular behaviour, we understood it to not necessarily be a call for help or assistance, as often times, if the teacher approached, no request for help followed. Rather, it appeared to be a 'touching base' with a teacher, checking for recognition in what can be a large, impersonal space for a new kindergarten child. The teachers, in both the case study kindergartens and the cluster groups, identified how two year-olds like to be near or around an adult, and often gravitated to where the teacher was, including during nappy changing times. They

identified the need for security and familiarity that the children sought from the 'familiar adult' and the anxiety that this created if there were unknown teachers as relievers in the environment. As the teachers described this:

It's that *wanting to share what they're doing* with you throughout the programme. So that's a really important part of it, that you're actually a hugely important part of the kindergarten experience because with you it's a better experience and it all goes with that trust, that relationship that you've formed.

AND

I think consistent staffing and things, they really need the teachers. If somebody's away that a child is particularly attached to, it becomes difficult for them to settle. They need to know you're going to be there everyday. Because it is such a small team, two or three teachers, if one is away you may have a dozen that are really attached to them, it makes it very difficult.

Interactions with the other children

In combining our data from the differing Dunedin and Wellington contexts, we found that the under-threes in our study differed widely in the amount and type of interactions they had with other children. Some of the differences appear to be related to the age of the children, others might equally be explained as a function of being "the new kid on the block", while others could be explained as resulting from familiarity with particular children, or individual temperamental preferences. We outline key themes from these findings below.

Being new: Watching and learning

We observed that children watched their kindergarten peers intently. A common feature among our case study children was a look of open wonder as their eyes tracked the movement or activity of the more experienced children. We recorded numerous examples of actions that followed which were often direct copies of the actions observed, or close

approximations. For example, a child observed carefully as a peer rolled a cable reel down a path as part of a race set up by one of the adults in the kindergarten. Having observed this from a seated position on the steps of the back door of the kindergartens for a couple of goes, he stood up gleefully and ran to pick up a discarded reel. He then joined the race, beaming with pleasure as his reel came to a stop and he ran to pick it up and offered it to a nearby girl for a turn, in the same way that he had previously observed other children do. The teachers celebrated these signs of 'belonging' in the environment as the beginnings of real participation in the programme:

Teacher: You see children kind of grow. When they're outside with the trucks or in the family corner - there's children in there everyday doing their thing - and then suddenly they're offering something to someone else. One day with the trucks here, you know negotiating or something. They're becoming more aware of each other and so that's really interesting to see. And then once they're kind of - almost as if they've got confidence in doing that and then they'll start seeing what else is happening.

Being new: It helps to have a friend

We observed that children often played alongside other children and engaged in interactions over objects but it was not usual to observe sustained conversations between them. In talking with teachers, they saw it as "pretty normal for afternoon children" to not have many conversations with their peers, although teachers noted also that children who already knew each other before they started kindergarten were "quite different and would speak to them a lot and that's because they feel comfortable".

It was clear to us as observers that having a friend did indeed make a difference to comfort and to the amount of sustained interaction that occurred among peers. For example, one child described by the teachers as "very articulate" and as keen to seek them out for a conversation, but as "not particularly chatty with the other children" noticeably did not make

much effort to engage her peers in talking and instead spent considerable periods of time in solitary focused activities such as painting, or collage work. In this, she frequently kept up a running commentary on what she was doing (for example, during painting saying: “I need some yellow, I like it”), but this commentary was not addressed to anyone and seemed instead to be a form of self-talk. The one exception was when she was in the vicinity of two children whom she knew from attending a different early childhood service in the mornings. When these children were close, she became involved in activities with them and invited them to engage in others herself. Similarly, one boy’s face lit up when another boy whom he knew outside of the kindergarten, did a pre-entry visit. For the rest of the session the two boys were inseparable and they enjoyed a prolonged session in the sandpit constructing tunnels and irrigation channels with spades and water hoses. They finished the session sitting on the mat with arms around each other’s shoulders.

Being new: Negotiating relationships

In analysing the experience of the younger two-years olds in Dunedin, we noticed that the older children in the afternoon sessions demonstrated a more sophisticated understanding of the kindergarten programme and ways of ‘working the system’. Numerous examples were noticed of older children being both supportive of the younger children, for example, demonstrating how to use a piece of equipment, but equally being also manipulative, for example, in distracting a younger two-year old and then claiming the ‘bike’ for themselves. Teachers were often aware of the positive assistance from the older children to the younger ones, but often were unaware of the more imaginative methods that the older children used to ‘trick’ the younger children into surrendering resources, or equipment. In one particular child’s experience we were interested to see how after having his bike ‘tricked’ out from under him on one day, he was able to secure his bike the following day by asking for assistance from the teacher to look after it for him. How quickly the rules of the game were learnt!

Interacting with the other children was sometimes about a wish to participate, about gaining entry into an activity, and about achieving what one wants. Most children had both successful and unsuccessful experiences with this. Sometimes the unsuccessful and successful experiences followed one upon the other in a matter of minutes. Seen in a sequence these experiences illustrate the social learning that went on, often un-noticed by teachers whose responsibility for group well-being often took precedence over in-depth one-to-one engagement with children.

Summary of insights and strategic relevance

Our observations of the 18 case study two year-olds formed the basis of in-depth reflective interviews with their kindergarten teachers. It was clear in these interviews that the teachers began to see and understand the experiences of the children in their programme from both familiar and new perspectives.

The familiar perspectives involved a confirmation of the challenges that the kindergarten environment posed to two year-olds and to themselves as teachers.

The new perspectives arose out of a sense of real joy in working with these very young children which for many seemed like a newly-discovered and pleasant surprise.

In this way the reflective interviews provided a unique opportunity for teachers to realise that their real apprehension about unfamiliar teaching territory was transforming into something quite different. To us as outside researchers it seemed that the teachers were moving from a position that views “toddlers” as incapable and “deficient” in skills, to a view that positioned their two year-olds as very capable and competent. This suggests that the teachers were deconstructing their existing images of the very young child and we see this as a necessary step towards a more inclusive approach to two year-olds in kindergarten.

That the kindergarten environment posed challenges for the children, in both learning to negotiate the people, place and things in a safe and successful manner, and in 'becoming a kindergarten child' remains undeniable. The experience of settling in involved learning the rules and routines of the environment – both the structural and social environment – no matter what the child's age.

The observations of the case study children demonstrated key similarities in the introduction of the two year-old to the kindergarten, irrespective of the age of the two year-old, but there were also some key differences in the experiences of the children that were based on age. The very young two year-olds (two to two and-a-half) were physically smaller, often less verbal, and more regularly sought reassurance from trusted others in the environment (siblings and/or teachers). It seemed to us as observers that being new is tough – till you make friends, being young is tough till you grow longer legs, but being new and young is doubly tough as you need to do both and also learn the rules of the game.

By opening up the “black box” of what goes on in kindergartens for the very youngest children there, this study can provide a starting point for teachers to consider the ways that the learning of the game can be made simpler.

In achieving this aim, it would be useful to note teachers' own reflections on the difficulties posed by some traditional practices within kindergartens, such as mat time and a single snack time. Teachers' own reflections indicate that synchronised large group activities are unrealistic to manage in the traditional way: flexibility is essential.

What is also essential is to have more adult bodies present to enable that flexibility. We observed that the physical size of young children created an access issue both to physical resources and to people: Children need to “touch base”. If kindergarten is about experiencing the adult as much as it is about experiencing the physical environment, then this means that adults must be accessible.

This makes the quality of children's experiences in kindergarten also a matter of teacher- child ratios.

Level Two: The immediate learning environments and relationships between them

Introduction

In this level of our analysis we focused on identifying the factors within the kindergarten environment, and between the kindergarten and the home, which supported positive experiences for the under-three year-olds.

For the purposes of this study we have equated positive experiences with responsive interactions between children and adults, and among children (Carr, 1998; Dalli, 1999; Duncan, 2001b; Wylie, Thompson & Lythe, 2001). Our unit of analysis for responsive interactions was the joint attention episode (Smith, 1999) when this occurred either between children or between children and adults. Instances of joint attention were videoed for all case study children and for the purposes of this report have been summatively reported as part of the Level One analysis.

This section of our analysis focuses on the teachers' and parents' perspectives on what supported positive experiences for under-three year-olds more generally. This includes teachers' reflections on the impact of the physical layout and resources within the kindergarten environment on the experiences of both children and adults, as well as parents' perspectives on interactions with teachers. Data for this section comprises discussions at cluster group meetings and interviews with case study teachers, and parents, as well as the presentation of the study from the Dunedin teachers at *the New Zealand Association for Research in Education* conference, December, 2005.

Teachers' perspectives of what helped support positive experiences

The teachers were quite clear, both in the cluster group meetings and during case study interviews, about factors which they perceived as helping children to settle easily into kindergarten. Many of these had to do with aspects of the physical environment; others were related to the structure of the session; and others still to relationships within the environment.

As Greenman (2005) asks for the young two year-old in an early childhood setting: -

How do you develop an environment that allows for collecting, hauling, dumping, and painting (with the requisite tasting of the paint and experimenting with the logical primary canvas, namely themselves)? How do you allow the necessary robust, explosive, and occasionally clumsy motor learning with a group of amoral beings who are largely oblivious to the safety of others - a group, however, that often hums with a current of collective energy? In a group setting, how do you accommodate and support the wonderful, albeit erratic, *do-it-myself* desire and the equally developmentally important but often less wonderful assertion of "No!" - and still accomplish anything in a reasonable time frame? Finally, how do you muster up the time, let alone the patience and sensitivity, to help each child through the agony and ecstasy of toilet training? "Mission impossible" may in fact understate the situation. (Greenman, 2005, p. 138)

The physical environment

One of the resounding messages from the literature surrounding best environments for quality early childhood education is that the equipment and materials within the setting should allow children to be in control, to develop independence and a sense of autonomy (Douville-Watson, Watson & Wilson, 2003; Lally, Griffin, Fenichel, Segal, Szanton, & Weissbourd, 1995). The environment relays powerful messages to the

child about whether adults consider that he or she is capable of successful independence and the type and variety of equipment and materials either promote the children's ability to independently impact the environment around him or her or communicate the idea of the child's dependence on others (Albrecht & Miller, 2000). One feature of this is that the equipment and furniture is recommended to be scaled to the size of the children using it. Albrecht and Miller (2000) note that children should be able to touch their feet to the ground when seated on chairs. While kindergartens are 'child-size', traditionally the child has been a three and four year-old, which has meant that some of the furniture and resources in the kindergarten are just too big - and feet don't touch the floor!



Photo 1: Two years-old and feet don't touch the floor

Age-appropriate equipment “down at their level”

The teachers regularly spoke about the modifications they had made to the standard kindergarten physical environment, or needed to make, to ensure that age-appropriate equipment was easily accessible to the youngest under-three year-olds. These included moving the younger-age books and other equipment to the lower shelves where children could reach them easily and placing posters and pictures “down at their level”. Lowering tables and having outdoor slides closer to the ground were also recommended, though the cost of these modifications was mentioned as

a concern. Having paint-brushes with shorter handles, as well as limiting the choices of paint colours, were seen as helpful strategies: the first helped the children to manipulate the paint-brushes and the second limited the children's 'zone of freedom of movement' (Valsiner, 1985, 1988) to a more manageable size.

The teachers from one of the case study kindergartens looked at their own environment from a two year-old world view and using the tools of this project - observation and a camera - saw their environment from a new perspective:

JAN: (Transcribed and edited from a cluster group presentation and the NZARE presentation in December, 2005).

I was spending some time with one of our two year-olds and we were doing patterns on a peg-board and I realised that she couldn't actually see the shapes that we were talking about. I lifted it up for her so that she could see what she was working on. And then it dawned on me also that really this little girl couldn't see a lot of the things in the environment. I got down to her level on the floor and looked around the room and realised that we had a wee bit of a problem. So getting my camera out and following her around this day I realised that changes needed to be made.

Photo 2: Peg Board viewed from a two year-old height:



At the play dough table she also wasn't able to reach the shapes and the rolling pins and things that are in the middle of the table - they were just out of her reach. We had also observed that the little ones would get up on the chair and get on the table to reach whatever was in the middle.

At the time I was lucky to have a student with us who worked in a Montessori under-threes room and I was talking to her about the height of the equipment and she talked about the height of the equipment in their Montessori room. And she invited me to go and have a look there, which I did, and took lots of photos and when we looked through them we realised that everything was a lot easier for them to access. So after discussing with the team we decided we were going to change things.

This photo was the first initiative that we did. We separated the tables. We usually had the two red ones together and the two purple ones together. (We've since taken out one of those tables because the parents couldn't get pushchairs in). The children can walk right round them now. They can reach all the things that are on the tables.

Photo 3: Puzzle tables:



We made changes to the play dough table as well and took the legs off and put the cushions around and the children have found this a lot easier. Initially they jumped right up onto it, but that didn't last long. Since then we have actually split the table in two, so we've got high legs on one side and left the other side low.

Photo 4: Play dough table:



We also have two year-olds in our morning session so we've left it split for both sessions.

I know that some kindergartens do have low tables for their children but we don't, they're all the same height. So we lowered it and put the cushions around it, it is really good.

In the cluster groups the teachers also became increasingly aware that the size of the equipment and the resources in their environments had been designed for older and bigger children:

Teacher: Even your furniture and things like that, sometimes the teeny little two year-olds, their feet don't touch the floor or they can't reach right up to the painting. Some of the furniture for your little ones, it's still really big for them.

Teacher: They have to stand on things in the toilets.

Teacher: Or the water trough, they can't reach the water trough, so you need to put them up higher so they can get into it.

Teacher: And with the paints, when we first had two year-olds they couldn't see what colour they were using. That's really unsatisfying for them. It's just a whole lot of pottles - what does that mean? So we got some clear pottles so they could actually

see and make choices. You know, if you get down to that height and you look at what's available, it's really interesting.

These are examples of the increased awareness of the different but complementary needs of children within the kindergarten. The decision to alter the furniture to enable the children to access the existing programme, rather than withdrawing the materials from the programme, or seeing the children as too 'small' or 'unable' to participate in the programme, demonstrates an inclusive approach to these children. The perceptions and expectations of the teachers with regards to what the two year-olds could and could not do were a key factor in these experiences of the children.

Not allowing the programme to take over the teaching

The amount of equipment available for the children was also a topic of tension for the teachers. On the one hand, teachers often removed the more difficult, or potentially unsafe, equipment from the session, while on the other hand they expressed concern that 'limiting' the equipment was reducing the opportunities for the older children in the session. Likewise, they were concerned that removing equipment was limiting the 'learning appropriate use of equipment' experiences for the young child. This debate was significantly influenced by the age of the child. For example, for the kindergartens with the 'just-turned two year-olds' limiting equipment for increased safety was of more concern than for the kindergartens who had the older two year-olds. For those with the very young two year-olds also, the teachers identified the need for bigger and more open areas for the children, to minimise the conflict between children from the un-coordinated movement and collisions that occur with groups of toddlers, and to allow for the 'transporting' of toys. This openness of space is also recommended in guidelines for environments for toddlers and the two year-olds (Douville-Watson, Watson & Wilson, 2003; Greenman, 2005; Moore, 2001).

However, “having more than one thing out” was also seen as helpful because “some of them don’t know how to share”. The particular case of “transporting” equipment was highlighted because “they love transporting things from one place to another: it’s the whole programme” and if there were not enough of it, the danger would be that the older children would “lose” (or hijack!) the younger children’s equipment. As a teacher sums up:

I think having a lot of equipment also means there’s less conflict. We’ve got a big area and they’ve got their own space and normally there’s enough room for everybody that wants to play at that particular time. So that helps them in their relationships, so they’re not actually fighting over a piece of equipment and that, you know, the environment is set up for a lot of children and so there is plenty there for them to choose.

However, thinking ‘smarter’ about what equipment and materials are in the programme and where they are situated, was a factor that made a key difference for both the teachers and the children in the kindergartens. By being selective and strategic in the resources they made available in the afternoon session the teachers found that they could avoid the environment taking over and spending the afternoon dealing with problems:

Are the bikes a nuisance, you know, are the bikes too big? Should we just put them out? So it’s those types of things. Otherwise, I think you can set yourself up to actually deal with problems all the time as opposed to really looking at what’s actually suitable for the children who are here. We thought: ‘we can’t cope like this, we really have to sit back and say what are we trying to achieve’. So it gets back to your planning and you’re looking and thinking: ‘We’ve got too much. They can’t make choices’. So if you can get that nice balance there it means for your teaching, it’s easy. It’s like less is more. [emphasis added]

Safety issues

Teachers had a great deal to say about the importance of the physical environment for children’s experiences at kindergarten. They emphasized the need for equipment to be safe and age-appropriate and

spoke about needing to have steps of a height that two year-olds could manage, and about removing small items from circulation during the afternoon sessions. This meant that items such as plastic bugs, and anything else that might be swallowed, had to be put away. Likewise, scissors were checked for safety. In one Wellington cluster group, teachers spoke about how the older children had helped the teachers chop off the poisonous leaves of a plant after wanting to know why anyone would eat leaves. In this exercise, the assistance of the older children was not only valued as assisting with safety but also because it encouraged the older children to care for the younger ones.

Most discussions of the teachers, both in the cluster groups and in the case study kindergartens, returned to the issue of safety in the environment for all the children, but in particular for the two year-olds, or smaller older children, for whom the environment posed particular challenges. In Dunedin the teachers identified how many of the playgrounds are on hill suburbs and just negotiating the slopes, ramps and steps was a major challenge for many children. The following discussion between teachers demonstrate these concerns:

Teacher: Oh, I was just thinking how lovely it would be to have a playground that's just for little ones, with equipment that you wouldn't worry about being unsafe. Just height-wise, I'm thinking about the kind of boxes and things that we've got that will be lower, or maybe have good steps up, inset into them and things, that they could still have lots of fun with, but were much more suitable for them.

Teacher: Once they get in they can actually get out, they don't have to stay in the boxes.

Teacher: Not just only the equipment but the actual the layout of the land. You know Dunedin being Dunedin there's a lot of sites that are quite steep and difficult for little ones and while it might be challenging - it's a bit more than just challenging really - it's too much.

In sharing our observations with the teachers, many of the observations had examples of the two year-old struggling with aspects of the equipment and the environment. The teachers' sense of frustration was increased at not having been able to "be there at that moment", "not able to stand there for that length of time to help them across one more time", or "having moved away just before that happened". Despite the adjustments that most of the teachers had made to their environments for safety, the lack of adults in the environment left the teachers constantly 'on the run' to ensure that the children were safe at all times - particularly in the outdoor environment.

Structure of the session

Mixed age sessions

While the case study kindergartens in our study still had two sessions for the different age children, they were arguably mixed-age settings, given that the kindergarten had children from two years-old to almost four years-old in the one session. The mixed-age setting was described as one full of tensions. The opportunities for children to engage in watching the 'bigger kids' and learning from observation was seen as an advantage for the two year-olds. Likewise, the teachers had numerous examples of older children supporting the younger children to 'learn' the kindergarten rules and routines. However, the benefits of the mixed-age grouping was also tempered with concerns for the rights of the two year-old in a large group size with other large children. This teacher sums up these concerns:

I think that in mixed-age centres sometimes with two year-olds they actually find it quite hard sometimes to get the equipment they want. When they want. There might be a big group of boys playing with the trucks and that is something they are desperately wanting to do. But because there is a large group of older children there and they are a lot bigger -where do they get to opportunities to actually involve themselves in things that they want to do? Because they are smaller and less verbal.

The ratio of under-three's to over-three's was a significant factor in how the teachers perceived the experiences of the children. This ratio component went both ways: if the under-two's were larger numbers than the over-two's then the teachers worried about the consequences of the increased attention to the two year-old's interactions, the environment adjustments, and the time taken with increased "care" duties that took them away from the older children. Over the two years of this project the Dunedin teachers became increasingly concerned about the older children in their two year-old afternoon sessions:

Teacher: And often, just as you were saying about your older children in the programme, I was thinking of some of our older children that are almost four and you're still with some that aren't two and half – you know, they're [the four year-old]'s trying to play and they're actually looking for interactions with children they're looking to talk with these children and play games with them and these little ones aren't at the same – they're not wanting to play with them and they don't talk back to them and they're, yeah, and they're saying: "Oh, they don't talk. And they're looking for those interactions and they're not necessarily getting it.

When the over-two's were a larger group than the under-two's then the teachers were concerned as to the levels of safety and suitability of the environment, the resourcing, and the ability of the younger children to access the programme. In our observations of the case study children, the daily experiences for the case study children were impacted by this factor.

Teacher: [I'm] meaning in the ratio type thing. For a small tiny two year-old in a large group of nearly five year-old boys. They may be quite interested in that equipment but because there is a large group of five year-old boys there they do not have the opportunity to be involved in that.

Staff-child ratios and group sizes

While the national kindergarten association survey (see Level Four for further discussion) did not identify numbers of two year-olds or group

sizes as an issue for their kindergartens, these were significant concerns for the case study kindergartens, where the combination of group size, the teacher: child ratios, and the ratios to over-three and under-three made a considerable difference to everyone's experiences of the programme.

All the teachers spoke about the benefits of having more adults in the kindergarten because “under-threes need a lot more support” . Teachers from one kindergarten spoke about how much better it was for children when there were fewer of them in the afternoon sessions. For example, one teacher exclaimed: “numbers affect everything. They change the whole dynamic of the group” and another one said: “On Monday there’ s 40 kids in the morning and you don’ t feel you are spending quality time with them. But when there’ s 30 in the afternoon, you feel more settled and you are spending quality time with them” . Quality meant having enough adults around to allow a teacher to “be there at the challenge course, holding their hand” and to enable the teacher to get to know the child and thus, for example, be able to “put things out that you know they can achieve. But also putting things out that challenge them, like puzzles” .

We observed the difference that smaller group numbers made to the individual case study children’s experiences. This was most noticeable in one of the case study kindergartens who repeatedly had under 20 children in most sessions. On the days that this increased to over 20 children, there was a recorded drop in the amount and the length of the interactions between the teachers and the children, and an increase in supervision, routine and management tasks. Interactions were often more focused on instruction, guidance and safety, where previously they had been on mastery, skill acquisition and extending dispositions.

Teacher: You’re talking about your group size - I think the amount of children that come in like, we had a group last year that we had

about ten or fifteen new two year-olds and it was – that was hard. If you're getting three or four at a time it's a lot easier I think. It definitely depends on how many you get at a time.

Teacher: Especially after the Christmas term break. We had 23 under-threes last year and that was quite a different group. It was very busy, everyone seemed to be running from one thing to another.

These factors of group size and ratios, which significantly impacted on children's experiences are discussed in more detail in Level Four of this report.

Impact of relationships within the environment

Good relationships between children and teachers, children with peers, and between parents/whānau/community and the kindergarten, were all seen as essential for positive experiences by children. The importance of the kindergarten responding well to the context of the community was also emphasized.

Relationships between children, family/whānau and teachers

Earlier in this report we noted that teachers were aware that familiarity with the kindergarten setting prior to attending, appeared to assist children to settle down. In the absence of prior familiarity, teachers emphasized the importance of getting to know the child and the family/whānau. Building relationships between children and teachers, with trust and respect, enabled the children to feel more comfortable, and the parent more confident in leaving the child in the teachers' care.

In cluster group discussions as well as in case study interviews, teachers noted that it was often helpful for children to have one adult to settle them in with one teacher commenting that children “tend to respond to the adult who's supporting them initially” and that helped the teachers to get to know the child. The double-sided view of this strategy was articulated by one teacher who said: “some little ones get attached to

you and that can be a problem but it can also be a good thing” . From interviews with the parents it was also clear that they too appreciated having one teacher to connect with and some identified that they themselves had one teacher that they felt more comfortable with. For example, this parent described it as:

I just gel with [Teacher]. I've tried to with [other teacher] but it's [Teacher] that talks to me and its [Teacher] that says things and tells me what [child] has been up to and what she thinks of it and what she thinks of [child].

The relationships between the teachers and the parents of the children was a central focus for the teachers. Teachers were of the view that parents of two-year olds had “certain expectations” about the relationship that teachers should have with their child and about how teachers would relate to them. One teacher noted the importance of knowing those expectations:

Having close relationships to the parents is important so we know their expectations, we know what the child can do and if the child needs support. We know whether the family member is able to come back during the session if the child is upset. We let the child know. We need to keep in touch with the parents daily, we put their cell phone numbers on the desk. They tell us where they are going, so we can talk to the child and explain how mum's at the supermarket and how we are going to talk to mum but she won't be able to come back straightaway. We are explaining and being quite specific and not just saying 'later' . Verbal communication and negotiation is very important.

The expectations of parents was noted as both to be expected, when the child is so young, but also occasionally unrealistic in the kindergarten context. This was a source of tension for teachers and one they discussed at great length in the cluster groups. For example:

Teacher: And then are we able to give them the support and the time that we really need to for those little ones, that's my concern? What are the parents expecting me to do? And how much time are they expecting me? And when they come back [to collect the child] are they expecting me still to be with that new two and a-half-year-old? Am I supporting? Am I doing the things that they

expect of us? And the child might be here [position in room] and I might be here [different position in room]. I get the feeling 'are they expecting me still to be there with that child?' Or because I'm here and the child's there does it look as though I've left the child alone?

Teacher: And they come in with their list of instructions, you know, my child is this and that and in half hour can you make sure they go to the toilet. Make sure they keep their shoes on

Teacher: and they don't go outside.

Teacher: Don't go near the container of water, they're just getting over a cold.

Teacher: Trying to keep all that information about all these individual children in your mind and trying pass it on and then the phone rings.

Teacher: And it's going back to parent issues - being with that child.

The teachers in both Dunedin and Wellington identified that their relationship with the parents of two year-olds was different to their relationship with parents of older children. (This included relationships with families of young two year-olds who had already had previous children at the kindergarten). While each family's 'settling in' processes differed, parents of very young two year-olds held some expectations from teachers which parents of older children did not have. One of these expectations was that there would be a teacher available to 'hand over' the child when it was time for the parent to leave:

Teacher: Mum leaving the two year-old it's often harder [than leaving a four year-old] and they need an adult, a lot of them, like nine times out of ten our two year-olds will need one of us . So you have to physically take them.

The parental expectation of a 'hand over' was for it to happen at both ends of the session. At the start of the session, parents often wanted someone to physically be available for their child and at the end also to be available to tell them about how their child's afternoon had gone. Teachers noted that while both of these opportunities for contact with the

child and their parent were desirable, they were increasingly difficult to provide when the numbers of new children starting and/or under-two's were more than a couple of children. The parents also realised this, but it did not stop them 'wishing' it could be possible:

Parent: The first week you'd maybe want a bit more [feedback] .you'd be anxious to know that they were going to be taken into someone's arm if necessary. Comforted. And at the end of the session that they had a good time. You know, I know they're busy but --- I don't even know what activities [child]'s enjoying. I couldn't tell you that. No one's told me what [child] seems to enjoy most doing. Anything like that – but I've got a general vibe that they think [child]'s having a good time. And other mothers have walked out the gate and said: 'oh yeah, [child]'s having a whale of a time' . And that's always good to know.

When we talked with parents we found that unless they had spent some time during the session with their child, they could not report confidently on their child's experiences during their time there. It was here that the feedback and the conversations with teachers became such an important aspect of their child's experiences for the parents. For the very young two year-old the verbal cues from the children themselves were absent and thus did not provide a context for the parent to be able to engage with the child over the activities and experiences of 'their kindergarten day'. This was particularly pronounced for 'first time kindergarten' parents. For example:

Parent: I ask [child] about kindy but I lack memory cues to elicit responses so I don't get much in the way of feedback.

Parent: Well, I don't really know what's happening for [child] during the day really . We've got a book with [child]'s - what she gets up to, like its only just started, so we've got one piece of information there, which we then bring home and add our bit to it. So in that respect that's what we know what goes on, other than that I don't know, unless I stay.

Parent: I think [child] likes the painting. [Child]'s quite an outside sort of kid though . I haven't had the opportunity to stay a whole session and watch what [child]'s doing because of the other little one, but, I imagine [child] would like being outside the most.

Overwhelmingly, the parents told us that they would like more feedback and conversations about their very young two year-old. While the child's profile books were valued, they did not provide enough regular information for the parents:

Parent: We only get feedback if [child] is sick or naughty, apart from the progress book which is excellent.

When giving the parents the photos from our observations, we were interested to see how the parent's understanding of their child's experiences increased immediately. Once they could see the visual depictions of their child involved in activities, it either supported their hunches, for example: "[child] really loves music so I thought [child] would like that", and "we expected to see [child] enjoying that at kindy".

Parent: (looking at a photo): That's good. That's good. Because this photo here where I see [child] sitting at the table is where I – in my head – is what I imagined [child] doing when I'm not at kindy.

Sometimes, the photos introduced them to new perceptions of their child, for example, the following discussion with a parent after looking through the photos:

Interviewer: Now the question after flicking through those - Is that what you expected to see? Are there any surprises there?

Parent: I'm surprised about [child] in the sandpit. I don't like sandpits. I hate sandpits. Sand gets into places where it shouldn't go. It's disgusting. It's good for [child] to be there and it's actually really nice to see [child] interacting with other kids, well not interacting but in groups with a lot of kids.

Interviewer: Yes.

Parent: A lot of photos on her own which I expected to be honest. . . But to see her like sitting with other children. . . it gives me – it warms my heart really.

Interviewer: And she does talk to the other children too.

Parent: She does?

Other teachers noted that many parents were themselves “in a stressed state as they were trying to settle the children in” . One teacher suggested that “sometimes the best thing for the child is looking after the mother” . Several teachers identified that it was common for parents of the two year-olds to want to stay:

A lot of our parents stay for a long time with two year-olds. Mainly because they are two. But they just like to stay and they stay for months some of them. Even if it's every day and that's fine but then that's hard, we were just saying, forming that relationship with the child sometimes because the parent is sort of always there and the child if they move away too far then the children sort of runs back to them. So it's more difficult to establish those relationships when the parents are there a long time.

Welcoming family/whānau, encouraging them to stay during the kindergarten session, and including them in the programme, were all seen as supportive of children's learning: “They are part of their child's education. They are welcome and they don't have to leave” . Teachers also saw the value for the children of a good parent-teacher relationship as children “watch everything that's going on...it's hard for a child to develop trust in the teacher if they don't see their parents trusting them” . A further strategy nominated by teachers as assisting a positive experience for children was to encourage early visits by children who had older siblings; teacher noted that some younger siblings just visited anyway but teachers said that they also made a point of specifically inviting the children and their family/whānau.

Once children were attending on a regular basis, some teachers reported that they sometimes gave children a camera to take photos of their

extended family members as a way of getting to know the children better and to provide a stronger connection with home. Children often came back to the kindergarten with photos of pets and might even bring the pets to the kindergarten which teachers felt was an indication that children felt this was a place they belonged in. One teacher noted: “sometimes they can’t distinguish between parents and animals – they are both a part of their family”.

Relationships with the wider community of the kindergarten

A good relationship with the wider community of the kindergarten was seen by the teachers as important because of the reputation that it built for the kindergarten. When we asked the parents about the reasons that they had chosen the kindergarten for their child, being part of their local community and building up relationships was a key factor in several of the parents’ reasons. All the parents discussed that they had chosen the kindergarten for their child for reasons of making social contacts for their children. They also talked in terms of making friends that they would go to school with later on, and how good it was for the children to form relationships outside of the family. For several of the families they had chosen the kindergarten because of existing links with the community, for example, recommended from Church contacts, or from attending a shared playgroup.

Teachers said that most families enrolled their children on the basis of a word-of-mouth recommendation by parents who knew each other in the community. So, it also helped if the teachers were involved in the community and knew families that way. One teacher recounted how a teacher knew a child and the mother from another support group. So the mother and child were really happy and settled when they met the teacher at the kindergarten the child was quite happy being left by the mother with the teacher. The child placed herself at the carpentry table where she could observe all the outside activity and area and made elaborate glue and wood objects. She went inside and did the same thing, positioning herself at a table where she had two lines of sight. On

the second day, the child “squidged up” to a different teacher and held her hand quite happily.

Summary of insights and strategic relevance

After reflecting on the observations of the children in their kindergarten, the teachers from one of the case study kindergartens summed up the way they perceived the environment that they provided for their two year-olds thus:

The environment that we have provided for the children in one that:

- is nurturing
- the teachers are passionate about children and their learning
- ensures that programme is low key where children are reassured
- respect is shown for children
- there is an expectation that children will do wonderful things
- independence is fostered
- meaningful conversations are developed and children’s learning dispositions are extended

This summary illustrates that teachers were clear about what they wanted to provide for children: they wanted positive learning experiences of every kind.

Teachers were aware that positive experiences were impacted by both the physical environment and the environment at the level of interactions.

At the level of the physical environment, teachers were concerned about a number of issues related to size, safety and age-appropriateness of the equipment and there was much discussion at cluster group meetings about these physical aspects. It seemed to us that teachers’ reflective discussions during interviews and at cluster meetings were very effective in producing ideas about how these constraints could be removed or diminished. A good illustration of this were the actions in one Dunedin kindergarten that followed upon the reflective interviews with teachers on the case study observations of children. Having observed the children’s

response to the physical environment, teachers took photos of the environment from the perspective of young two year-olds; this then led to changes to kindergarten furniture. In this way, we can say that the project methodology was able to facilitate enhanced *understanding of the processes of teaching and learning*.

At the level of interactions, teachers' discussions were more problematic and dominated by their awareness of the importance of one-to-one sustained interaction with children and the competing imperative to manage a programme for more than 20 children with only one or two other teachers working on site. Teachers also felt a tension between what they knew that parents of two-year olds expected for their young children and the very real constraints they worked within which made them unable to fully comply with those expectations. As one teacher said: "it all comes down to numbers!" These issues engaged teachers in keen debates during cluster meetings but, unlike the issues to do with the physical environment, no clear suggestions were forthcoming beyond the clear refrain of "more teachers"!

From the point of view of the parents, it seemed to us that there was a sound appreciation of the important role of the teachers in their child's life. Parents also appreciated the challenges teachers faced in dealing with a group of mixed-aged children under the structural constraints of large group sizes and low numbers of adults. Nonetheless, parents still would have preferred more contact with the teachers and fuller feedback on their child's experience at kindergarten, especially at the time of starting in kindergarten.

The suggestions made by the parents about how more teacher-child and teacher-parent contact might be achieved are similar to those encountered in the "primary caregiver" literature. This literature supports having a key teacher to ease daily transitions (Daniel, 1998; Dalli, 2000, 2001), to develop a trust relationship with the teacher than can later

transfer to other adults and children (Bernhardt, 2000), and to mediate understandings and scaffolding skills (Lally et al., 1995; Winter & Harley, 1999).

A primary caregiver system is usually recommended in centres where there are larger numbers of staff than is typical in New Zealand kindergartens and where staffing rosters and staff turnover can interfere with the stability of the teacher-child relationship.

Clearly staffing rosters and a high staff turnover were not an issue in any of our case study kindergartens which, apart from one Wellington kindergarten where staff changed at the end of the year, had very stable staffing and predictable teachers on site every day. However, the ability to focus on individual children for any length of time, as a primary caregiver would, was missing for our case study teachers and seems an attractive suggestion for responding to the tension they experienced. It is certainly the case that while current conditions in kindergartens make it very difficult for kindergarten teachers to focus on an individual child, the interactional characteristics of a primary caregiver role, would not be difficult to replicate in any of our case study kindergartens as we have already observed them to be present in the kindergarten teachers we observed.

If the interactional characteristics that enable a primary caregiver role are present, then it would seem that it is the structural characteristics that require attention.