Assessment practices and aspects of curriculum in early childhood education

Results of the 2007 NZCER national survey for ECE services

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Acknowledgements

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Ben Gardiner co-ordinated the development of the survey, assisted with proofing and designing the questions, co-ordinated mailouts, and answered questions from participants. Edith Hodgen and Simon Leong undertook the initial data analysis. Sally Robertson and Magdalene Lin contributed to coding and data capture. Cathy Wylie provided critical feedback throughout, and Bev Webber managed the publication process.

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Executive summary

This is one of two reports of the main findings from the 2007 NZCER national survey of ECE services, focusing on curriculum and assessment in ECE services. A second report (Mitchell, 2008b) examines provision of ECE services and parental perceptions.

The national survey was of teachers/educators, managers, parents, and committee members in 601 licensed ECE services, undertaken in late 2007. The sample was representative of the main licensed ECE service types. Overall, there was at least one response from 53 percent of the services sampled. In 2002, the Government published its long-term strategic plan for ECE, *Pathways to the Future: Ngā Huarahi Arataki*, focused on improving quality, increasing participation in ECE, and promoting collaborative relationships. This survey report documents participants' perceptions of assessment and curriculum practices and issues, and provides a picture of changes that have occurred since the first national survey carried out in late 2003/early 2004. A focus of government policy initiatives in ECE since publishing the strategic plan for ECE has been on improving the quality of education through initiatives designed to enhance teaching and learning processes and teacher qualifications. This report also provides some commentary on teachers/educators' views of these initiatives, and changes in teaching and learning practices that are associated with teachers/educators' uptake of opportunities offered by the initiatives.

Key findings

Major changes in assessment practices were reported from 2003 to 2007 that indicate a growing use of narrative and credit modes of assessment, and greater participation by parents, whānau, and children in assessment processes. A credit mode of assessment focuses on what children can do, rather than on children's deficiencies or what they cannot do.

Teacher reports show the following shifts in methods of documentation and data gathering from 2003 to 2007:

- a large positive shift in the use of Learning Stories. Ninety-four percent of teachers/educators reported they were using a Learning Stories framework to document learning episodes in 2007, compared with 78 percent in 2003. "A Learning Story is a documented account of a child's learning event, structured around five key behaviours: taking an interest, being involved, persisting with difficulty, expressing a point of view or feeling, and taking responsibility (or taking another point of view)" (Carr et al., 2000, p.7). Learning Stories focus on dispositions that build identities that are positive about learning.
- a small positive shift in the use of photographs from an already very high level (2007, 96 percent; 2003, 90 percent). Photographs and commentary about learning can be valuable in

being able to be "read" by a range of audiences, children, and adults, and in their emotional appeal.

- negative shifts in the use of anecdotal records (2007, 60 percent; 2003, 75 percent), time sampling (2007, 19 percent; 2003, 41 percent), and checklists (2007, 13 percent; 2003, 22 percent).

The positive shifts represent a move towards more qualitative and interpretive methods of documentation that are able to capture the learner within contexts of relationships and environments. These approaches lend themselves to assessment of complex outcomes, such as learning dispositions, which are not all predetermined, and are aligned with the sociocultural framing of the early childhood curriculum, *Te Whāriki* (Ministry of Education, 1996).

The negative shifts in use of time sampling and checklists are away from documentation and assessment modes that are aimed mainly at judging a child's activities over time or whether or not a child has gained a particular skill. The shortcomings are seen as being that any judgements about activities or learning are made outside of the context in which they occur (so the role of teachers/educators and others is not noticed, for example), and the preordained categories limit the learning that is recognised.

In 2007, teachers/educators were making more use of documentation for evaluation of their practice (2007, 76 percent; 2003, 61 percent), for evaluation of the ECE programme (2007, 85 percent; 2003, 78 percent), and to provide feedback for children (2007, 71 percent; 2003, 62 percent). These emphases should help teachers/educators and others to respond better to children's learning.

Assessment resources developed by the MOE are being used widely and are having an impact on assessment practices, according to teachers/educators. Seventy-two percent of teachers/educators had used the MOE (2005b) assessment exemplars, *Kei Tua o te Pae*. Most of these teachers/educators thought it had helped them become "better able to use assessment for learning and development" (68 percent). Other benefits were in encouraging children to self-assess (52 percent), involve families (50 percent), understand sociocultural theory (47 percent) and develop bicultural frameworks (40 percent). Only 12 percent of these teachers/educators thought it had not made any difference to what they did before.

Kei Tua o te Pae emphasises the value of children and families participating in assessment processes. There were high levels of such participation in 2007:

- Eighty-four percent of teachers/educators said their children revisit their assessment portfolios, and about a third said children used their portfolios to make judgements about their achievements or progress.
- Eighty percent of parents reported being involved in assessment processes in 2007, a large positive shift from the 53 percent in 2003. The most common involvement was in parents accessing assessment portfolios and contributing stories from home. Just over half were invited to participate in assessment, planning, and evaluation.

Nevertheless, 32 percent of parents wanted more information about their child than they were getting, more than the 18 percent in 2003. Parents would like ideas about how to support their child's learning, more detailed information about their child's progress, and more regular reports and assessments. It may be that in 2007 parents were more aware of how they could contribute to their child's learning and development, and held a keener appreciation of what they might expect from their ECE service.

Information and Communication Technology (ICT) was being widely used to support children's learning, especially documenting learning, creating portfolios, and developing resources. ICT was also used for parent newsletters.

Most teachers/educators had participated in some professional development in the last 12 months, especially on teacher appraisal, assessment, te reo and tikanga Māori, evaluation, and children's behaviour. Fifty-nine percent of teachers/educators had had 15 hours or more professional development. Over 90 percent of teachers/educators agreed that professional development had helped teachers/educators to actively reflect on their practice, given opportunities for teachers/educators to try out teaching and learning practices, and encouraged new ways to engage children in learning.

As in 2003, teachers/educators thought the most useful ideas for their teaching programme came informally from other teachers/educators in their own ECE service. Courses and professional development, and reading and research literature were the next most useful sources of ideas. Stress management, children with special educational needs, ICT use, and children's behaviour were the most common areas of advice and information teachers/educators felt they needed but were missing out on.

Seventy percent of teachers/educators said they had one or more children with special educational needs, and just over half said they were not receiving support but would like it, mostly for one to three children. The most useful advice, where it was received, came from working with parents to meet the child's needs, working with the MOE Group Special Education, and having an Education Support Worker in the ECE service. When asked to choose from a list as well as give an open response, teachers/educators said the three types of advice and support that would be most helpful in working with children with special educational needs were Education Support Worker time, more specialist support, and better co-ordination with other agencies, e.g., health. Teachers/educators made other comments about working with children with special educational needs, mainly related to the need for information to be shared between teaching staff and specialist staff, and a long waiting time to receive specialist support for particular children.

One of the goals of the strategic plan for ECE, *Pathways to the Future: Ngā Huarahi Arataki*, is to promote coherence of education between birth and age six to support continuity of education:

• Fifty-nine percent of teachers/educators said no professional relationship with the other ECE service existed when children attended more than one ECE service, and 38 percent of teachers/educators said they did not always know if a child was at another ECE service.

Where there was a relationship, the most common form of contact was occasional phone calls if something unusual happened. These were similar to 2003 findings.

- In just over half the ECE services, children went on to attend more than two schools/kura. The most common relationship was to share information on individual children (34 percent). Most teachers/educators (77 percent) encouraged parents/whānau to visit the school/kura with their child. Forty percent of teachers/educators said children's assessment portfolios go with the child to the school/kura when the child enrols. (Question not asked in 2003.)

- In ECE services that contributed to only one or two local schools, teachers/educators were more likely to have a reciprocal visiting relationship and share activities with primary teachers, than were teachers/educators in services that contributed to three or more local schools. This pattern was similar to the pattern found in 2003.

- Teachers/educators in ECE services that contributed to three or more local schools were more likely to send children's assessment portfolio to the school with the child (46 percent, compared with 34 percent). Assessment portfolios could be a key mechanism for communication between primary teachers and ECE teachers/educators, offering ways for primary teachers to gain greater understanding of the ECE curriculum, to build on strengths identified in ECE settings for individual children, and for developing stronger pedagogical relationships between teachers/educators in these sectors.

The achievements identified by teachers/educators were similar to the focus of MOE resources and professional development emphasis being offered at the time. The majority of teachers/educators from all services felt that increasing their own knowledge and skills had been one of their main achievements in the last three years, in both 2003 and 2007. Most teachers/educators regarded creating a more positive learning environment as a main achievement. The main shift from 2003 to 2007 was in more teachers/educators rating improved assessment and evaluation practices as a main achievement in 2007 (78 percent in 2007, compared with 68 percent in 2003). This aligns with teachers/educators' use and positive response to the assessment exemplars, *Kei Tua o te Pae*, and the uptake of professional development on assessment and evaluation.

Overwhelmingly, parents were satisfied with their ECE service: 93 percent rated their overall satisfaction level as "good" or "very good".

The survey findings suggest that the ECE sector is in good heart professionally. Opportunities being offered through MOE publications and resourcing, especially in relation to assessment, are welcomed and being used by teachers and educators to enhance teaching and learning practice.

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1. Introduction

In 2003, NZCER carried out the first comprehensive survey in a nationally representative sample of licensed ECE services. NZCER intends to carry out these surveys every three years, to provide a barometer of the wellbeing of ECE provision and to monitor changes to provision of interest to the sector and policy analysts. This 2007 survey is the second in the series, and builds on the 2003 survey.

This report is one of three using 2007 survey responses.[1] It documents ECE service participants' perceptions of assessment practices and curriculum resources in New Zealand's ECE services in late 2007, and of the changes that have occurred since 2003. It describes participants' uptake of professional development and use of assessment resources published by the MOE. The views of teachers/educators from education and care centres, kindergartens, playcentres, and home-based services, and from a small sample of kōhanga reo kaiako are reported, along with views of parents. Changes from 2003 to 2007 are discussed with reference to the sociocultural framework underpinning the ECE curriculum, *Te Whāriki*.

Following publication of *Te Whāriki* in 1996, considerable resources have been developed by the MOE to support ECE services to improve quality practices in teaching and learning. MOE policy initiatives and contracted research projects, publications, and professional development have put emphasis on planning, assessment, evaluation, and self-review (Carr et al., 2000), on ICT and how ICT can support learning in ECE services (Ministry of Education, 2005a). Nineteen designated Centres of Innovation have been supported to build their innovative approaches to improving teaching and learning and share their models of practice with others in the ECE sector (Meade, 2005). The 2007 NZCER national ECE services survey was undertaken after publication of *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars* (Ministry of Education, 2005b) and the ICT in ECE framework (Ministry of Education, 2005a), and after Centres of Innovation had become well established. Publication of self-review guidelines was a more recent initiative (Ministry of Education, 2006). As well, the survey was undertaken close to the target date for increases to the number of registered teachers in teacher-led services.[2] This

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[1] Two further publications report on other findings. Mitchell, L. (2008a). *Early childhood education services in 2007: Key findings from the NZCER national survey* (www.nzcer.org.nz) provides a snapshot of changes in ECE since 2003, and the current main issues and challenges confronting ECE services. Survey findings from a subset of questions about ECE provision and parental views of ECE are discussed in Mitchell, L. (2008b). *Provision of ECE services and parental perceptions. Results of the 2007 NZCER national survey of ECE services.* Wellington: New Zealand Council for Educational Research.

[2] Targets: 2005 all persons responsible were required to be registered teachers; 31 December 2007—50 percent of regulated staffing required to be registered teachers.

initiative aims to improve the quality of ECE services. Since the 2003 survey, further opportunities had also been made available for professional development related to assessment, ICT, and the curriculum.

In this report, we examine aspects that have been the focus of government policy initiatives where we might expect any changes to have become consolidated, and where the 2003 survey showed there were some challenges:

- Teachers/educators' assessment practices, data gathering and use made of data, and issues about assessment are discussed. Assessment processes are intended to support high-quality teaching and learning by offering opportunities for teachers/educators, managers, parents/whānau, and children to gather and examine evidence/information, and use it to enhance children's learning and development.
- We report on the delivery, uptake, and value of professional development from teachers/educators' perspectives.
- Funding and support for working with children with special educational needs were regarded by teachers/educators as a priority issue for government action in the 2003 survey, and we explore teachers/educators' perceptions of the usefulness of advice and support that they received for working with children with special educational needs.
- We examine ICT resources and teachers/educators' use of these, and the perceived quality of teaching and learning resources in the ECE environment.
- We examine relationships among ECE services when children attend more than one, and between ECE services and schools and kura, in relation to educational coherence between these settings.
- Finally, we look at teachers/educators' views of their achievements in the last three years, and overall parental satisfaction.

Section 2 discusses the research methodology for the study.

In Section 3 the findings for 2007 are presented, and responses compared with those given in 2003, where there are similar data.

Section 4 provides an overview of the findings, and discusses changes that have occurred from 2003 to 2007 and key issues that have emerged.

2.   Research methodology

This was the second NZCER national survey of licensed ECE services. We built on questions and findings from the first national survey, carried out in 2003, and consulted with sector representatives and MOE officials about important issues to include. The MOE asked us to include some specific questions about children with special educational needs.

Sample

The questionnaires were sent in October 2007 to 601 licensed ECE services,[3] approximately 15.9 percent of all services, using lists obtained from the MOE. The sample was a random sample stratified by ECE type and educational region (North; North Central; South Central; South Island).

Overall, there was at least one response from 53 percent of the services sampled. Response rates were highest in kindergarten and lowest in home-based and kōhanga reo. We have made comment on kōhanga reo where they stand out from other services rather than reporting percentages, because of their small numbers. The main reason given for low response rates in home-based services was that some managers did not think the survey questions were entirely suitable for home-based services, and declined to take part. It would have been useful for NZCER to have had further contacts with Te Kōhanga Reo National Trust to encourage greater participation from kōhanga reo.

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[3] Excludes licence exempt playgroups.

Table 1 **Licensed ECE services sampled and response rates**

Service type	Number of services in NZ (*N*)	Number of services in sample (*n*)	Percentage in sample	Percentage of services with at least one response
Education and care—private	1155	182	30	27
Education and care—community	802	130	22	24
All education and care	**1957**	**312**	**52**	**51**
Kindergarten	620	98	16	22
Playcentre	473	74	12	18
Home-based	240	39	7	4
Kōhanga reo	491	78	13	5
Total	**3781**	**601**	**100**	**100**

Within the education and care sample, 130 were community-based and 182 were privately owned. Fourteen of the home-based services were community-based and 25 were privately owned.

Appendix A sets out the characteristics of ECE services nationwide, the characteristics of the 2007 NZCER survey sample of 601 ECE services, and the ECE service characteristics of participants. Overall, there is some under-representation in the responses of home-based, kōhanga reo, privately owned ECE services, and some over-representation of kindergarten, playcentre, and isolated services. Privately owned services did not have a committee, so this lowered percentage returns for education and care and home-based services in relation to the committee member survey, where over half are privately owned. There was considerable over-representation of kindergarten management (head teacher) responses, over-representation of management from larger size services (31 or more children), and under-representation of playcentre management responses compared with the patterns found overall.

Each ECE service in the sample was sent a flyer outlining "Hot topics" in the 2007 national survey for its service type and an information sheet, along with one questionnaire for management, two questionnaires for teachers/educators, and two questionnaires for parents/caregivers. Community-based ECE services were also sent two questionnaires for committee members/office holders (the president/chairperson and a committee member who might perhaps convey a different view to the chairperson's on some issues). We asked for the management questionnaire to be filled in by a person who was knowledgeable about their ECE service operation, e.g., the head teacher, supervisor, president, or an administrator. We asked management to select teachers/educators and parents/caregivers at random and

explained how this was to be done. We provided the name of the project administrator to contact for any queries. A freepost envelope was sent for return of each questionnaire.

We emailed and faxed those who had not returned their questionnaires by the due date of 19 November 2007 to advise them we had extended the due date to 17 December, and tell them it was not too late to hand out surveys and complete them. We sent a thank you note to all respondents as they returned their survey, advising them that an overview report (Mitchell, 2008a) would be available in 2008.

Response profiles

Table 2 gives the response rate for each of the four groups surveyed. Parents had the highest response rate. The table gives the percentage of services from which at least one response was received as well as the percentage of the individuals sampled from whom a response was received (these percentages are the same for the managers where one questionnaire was sent to each service). The responses for the parent committee members are calculated excluding the private education and care services and the home-based services. However, not all of the other services had parent committees, so the response rate is a low estimate of the response.

Table 2 **Response rates for participant groups in services with at least one response**

Participants	Number sampled	Number of surveys returned	Percentage of centres sampled with at least one response	Percentage of sample responding
Managers	601	223	37	37
Parents	1202	418	45	35
Teachers/educators	1202	401	43	33
Parent committee members	760	232	40	31

Consistent with our sampling and numbers for each type of ECE service provision, the highest proportion of respondents was from education and care centres followed by kindergartens.

Table 3 **Percentage of participants from each service type**

Participants	Education and care	Kindergarten	Playcentre	Home-based	Kōhanga reo
Managers (n = 223)	41	42	7	3	7
Parents (n = 418)	50	22	18	4	6
Teachers/educators (n = 401)	52	26	16	4	2
Parent committees (n = 232)	33	32	32		3

This report draws on data from teachers/educators and parents: their profiles are described below.

The *teachers/educators* responding to our survey were predominantly women (97 percent). Most identified themselves as Pākehā/European (77 percent). Eleven percent identified as Māori; 3 percent Indian, 2.5 percent Chinese, 1 percent SE Asian, 1.2 percent other Asian (7.7 percent of Asian ethnicities); and 2 percent Samoan, 1.2 percent Tongan, 1 percent Cook Islands Māori, 0.5 percent Niuean, 0.2 percent Fijian, 0.2 percent Tokelauan, 0.5 percent other Pasifika (5.6 percent of Pasifika ethnicities).

Most teachers/educators held qualifications related to their service type.

- In teacher-led services (education and care, kindergarten, and home-based), 58 percent of teachers held a Diploma of Teaching (ECE) and 30 percent held a BEd (Tchg) (ECE).
- The most common qualifications for playcentre educators were Playcentre Courses 1, 2, 3, or 4 (53 percent), or Playcentre Parts 1, 2, or 3 (36 percent). Eleven percent of playcentre educators held a Diploma of Teaching (ECE), and 10 percent held a BEd (Tchg) (ECE).
- Two of seven kōhanga reo kaiako held Whakapakiri, two held Te Ara Tuatahi, and one held Te Ara Hiko. Two also held a Bachelor's degree in a non-ECE field.
- Two percent of all teachers/educators held a postgraduate qualification. Sixteen percent were studying for an ECE-related qualification. A third of teachers/educators held more than one qualification.

Most teachers/educators responding were experienced in teaching in ECE. Twenty-two percent had 16 years or more teaching experience in any ECE service, 39 percent had six to 15 years' experience, 28 percent had two to five years' experience, and 9 percent had less than two years' experience. Average years teaching in any ECE service were five years (playcentre and kōhanga reo respondents), eight years (education and care respondents), and nine years (kindergarten and home-based respondents).

Table 4 **Teachers/educators' average years of working experience in ECE in 2007 (*n* = 401)**

ECE service	Education and care (*n* = 208) (average years)	Kindergarten (*n* = 110) (average years)	Playcentre (*n* = 62) (average years)	Home-based (*n* = 14) (average years)	Kōhanga reo (*n* = 7) (average years)
Current ECE service	4.9	6	4	6.4	4.7
Any ECE service	7.6	8.7	5	9.4	4.7

The *managers* responding to our survey filled various positions in the ECE service. Most held teaching positions (head teacher, supervisor, or educator/trainer). Education and care services and kōhanga reo were more likely than others to have their survey completed by an administrator, and

education and care and home-based by a manager. Playcentre surveys were mostly completed by the chairperson or president.

Table 5   **Positions held by managers responding to the 2007 survey (*n* = 223)**

ECE service	Education and care (*n* = 120)	Kindergarten (*n* = 50)	Playcentre (*n* = 36)	Home-based (*n* = 11)	Kōhanga reo (*n* = 6)	Total (*n* = 223)
Head teacher	27	92	3	0	0	35
Administrator	44	6	17	9	67	30
Supervisor	40	2	17	36	17	27
Licensee	41	2	0	9	0	23
Director/manager	44	2	3	55	0	27
CEO	9	6	3	0	0	7
Chairperson/ President	3	0	67	9	0	13
Owner	8	0	0	0	0	4
Educator/trainer	1	0	11	0	0	2

NB: Percentages add to more than 100 because multiple responses were possible.

Managers were mainly women (97 percent), predominantly Pākehā. The ethnicity of managers was Pākehā, 86 percent; Māori, 8 percent; of Pasifika ethnicities, 3 percent; of Asian ethnicities, 4 percent; and other ethnicities, 2 percent.

Like the teachers/educators, most managers held qualifications related to their service type.

Other than playcentres, on average they had more years working in any ECE service, and in their current ECE service, than did teachers/educators.

Analysis of data

The questionnaires used in this survey took between 30 minutes and 50 minutes to complete. It was a challenge to cater for the diverse range of ECE services within a common questionnaire, and some questions were less applicable to home-based services. In future, we may consider surveys that focus on issues for specific service types. Copies of the questionnaires are available from NZCER.

Many of the questions asked were in the form of closed questions with boxes to tick. Answers to open-ended questions and comments were categorised and coded. Frequencies of the answers are reported, and these have been cross-tabulated with a set of service characteristics—type, whether

or not the ECE service receives Equity Funding,[4] and ownership (private or community-based)—to find out if these characteristics are reflected in any differences in answers.

Personal characteristics of parents—of income, qualification levels, and paid employment status—have been used in analysing some parent and parent committee data for the second thematic report on ECE provision and parental perceptions (Mitchell, 2008b).

Cross-tabulations were done using SAS, and chi-square tests were used to test for association. Differences significant at the $p < 0.01$ level are reported. At the $p < 0.01$ level, a 1-in-100 chance exists that a difference or relationship as large as that observed could have arisen by chance alone. Differences that are meaningful or following a trend are reported as indicative differences where the p value is between 1 and 5 percent. A significant association does not imply a causal relationship.

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[4] Equity Funding is a small amount of funding that is additional to bulk funding and discretionary grants, and is intended to reduce educational disparities. It has four components: low socioeconomic; special needs and non-English speaking background; language and culture other than English; and isolation. It is intended to increase participation by providing additional resources, and improve quality through addressing the higher cost for achieving the same educational outcome.

3. Findings

New Zealand's ECE curriculum *Te Whāriki*, published in 1996, is a bicultural curriculum for all children from birth to school starting age. It is founded on aspirations for children to:

> . . . grow up as competent and confident learners and communicators, healthy in mind, body and spirit, secure in their sense of belonging and in the knowledge that they make a valued contribution to society. (Ministry of Education, 1996, p. 9)

The emphasis is on children's competencies, dispositions, and theory building, and the child as a participant within a social world. It is a framework, rather than a prescriptive curriculum, and defines curriculum broadly as "the sum total of the experiences, activities and events, whether direct or indirect, which occur within an environment designed to foster children's learning and development" (Ministry of Education, 1996, p. 10). It "requires attention to every aspect of every child's experience within the early childhood setting" (Nuttall, 2003, p. 162), and may therefore be difficult to operationalise. It rejects more traditional notions of curriculum that prescribe aims and content, and expects services to create their curriculum in a culturally situated way. The word "whāriki" in the name is a "woven mat" reflecting the view of curriculum as "distinctive patterns" (Ministry of Education, 1996, p. 11).

Assessment for learning

Assessment for learning sits within the sociocultural framework of *Te Whāriki*. It is described in the MOE resource, *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars* (Ministry of Education, 2005b), as "noticing, recognising, and responding", after Bronwen Cowie's use of this description in her work on assessment in science classrooms (Cowie, 2000).

> These three processes are progressive filters. Teachers *notice* a great deal as they work with children, and they *recognise* some of what they notice as 'learning'. They will *respond* to a selection of what they recognise. (Book 1, p. 6)

Kei Tua o te Pae discusses the idea that the difference between noticing and recognising is the application of professional expertise and judgement, an ability to recognise the significance of what is noticed in relation to learning and wellbeing. This ability to recognise learning is linked in turn to the ability to make a professional response to that learning, and in doing so, to reinforce learning and extend it.

In their Best Evidence Synthesis on characteristics of effective professional development, Mitchell and Cubey (2003) outlined factors or mechanisms that support teachers/educators to investigate their own teaching practices in order to enhance teaching and learning. Gathering and

analysing data from their own ECE setting is a key process in assisting teachers/educators to deepen their understandings of learning, and revise assumptions that may limit recognition of children's and families' competencies.

In a wider context, Carr et al. (2001) have argued that assessments "can be formative of democratic communities of teaching and learning" (p. 29). They see this happening in three ways:

> Assessments can act as a 'conscription' or recruitment device for children, families, and the staff team, to participate in a social community of learners and teachers;
>
> Assessments can provide social spaces for everyone to contribute to the curriculum;
>
> Assessments can assist participants in the community to develop trajectories of learning—to story and re-story. (Carr et al., 2001, p. 29)

According to Carr et al. (2001), narrative and credit modes of assessment are particularly valuable as "conscription devices" because they allow families to have access to the practices and purposes of the ECE setting. They are emotionally appealing and affirming to families, children, and teachers/educators. They offer a window into the learning that is valued within the ECE setting, by "reifying" the practice.

Similar purposes and processes were described by Dahlberg, Moss, and Pence (1999), who argued for the use of "pedagogical documentation" as a tool for reflecting on pedagogical practice and for creating democratic pedagogical practice. According to them, pedagogical documentation also enables those involved in ECE settings to take responsibility for making meanings and decisions about what is going on there.

The last two decades have seen major shifts in assessment and planning practices in New Zealand. Carr (2001) has described herself moving away from a "folk model" of assessment whose purpose was to "check against a short list of skills to describe 'competence' for the next stage of education" (p. 2), to have as a predominant interest context-free "school oriented skills", and to focus attention on deficits or gaps in children's skills that needed filling. Carr argued for an alternative model where the purpose of assessment is to enhance learning, and a predominant interest is in strengthening learning dispositions as outcomes of ECE. "Objective" checklists are replaced by "interpreted observations, discussions and agreements". Lawrence (2004), has also described a shift in ECE service planning over the last two decades, from "keeping children busy" with activities in the 1980s, planning activities and events from children's interests in the 1990s, to planning that nurtures the dispositional learning that is situated within *Te Whāriki*. She argued that teachers must know what a child is thinking about an interest (not simply that teachers think they have identified a child's interest) and that planning is "reflectively responding to children's thinking". Then the teacher can plan how to support and resource learning.

In this NZCER national survey, changes in assessment practices are reported from 2003 to 2007 that indicate a growing use of narrative and credit modes of assessment, greater involvement of parents, whānau, and children in assessment, and more use of interpretive methods of assessment.

Gathering data about children's learning

In 2007, most teachers/educators (91 percent) used six or more methods to gather data about children's learning. The most common methods were photographs/digital photographs (96 percent), Learning Stories (94 percent), conversations with children (93 percent), examples of children's work (90 percent), consultation with parents (87 percent), discussion with teachers/educators (86 percent), and informal observations (84 percent).

Table 6 **Methods teachers/educators used to gather data in 2003 and 2007**

Data gathered about learning	Teachers/educators %	
	2007 **(n = 401)**	**2003** **(n = 402)**
Photographs/digital photographs	96	90
Learning Stories	94	78
Conversations with children	93	90
Examples of children's work	90	89
Consultation with parents	87	86
Discussion with teachers/educators	86	87
Informal observations*	84	
Anecdotal records**	60	75

NB: Percentages add to more than 100 because multiple responses were possible.

* Informal observations was one of the seven most frequent methods used to gather data in 2007 but not in 2003.

** Anecdotal records was one of the seven most frequent methods used to gather data in 2003 but not in 2007.

Kindergarten teachers were more likely than others to use video recordings (34 percent, compared with 19 percent overall), and discussions with external professionals (65 percent, compared with 42 percent overall) as methods of gathering data about children's learning.

The main shift in methods of data gathering from 2003 to 2007 was in the use of Learning Stories—94 percent of teachers/educators reported they were using a Learning Stories framework to document learning episodes in 2007, compared with 78 percent in 2003.

> A Learning Story is a documented account of a child's learning event, structured around five key behaviours: taking an interest, being involved, persisting with difficulty, expressing a point of view or feeling, and taking responsibility (or taking another point of view) . . . A Teaching Story on the other hand is about evaluating practice. (Carr et al., 2000, p.7)

There was also a small increase in the use of photographs, and a small drop in the use of anecdotal records.

Learning Stories are a form of narrative assessment. They focus on dispositions that offer the basis for identities that are positive about learning and able to support further learning. For

example, Dweck and Leggett (1988) have categorised learners as "mastery oriented" or "helpless" according to their response to difficulty:

> 'Helpless' children tend to give up easily as they worry about their lack of ability. But when 'mastery oriented' children experience a setback, they tend to focus on effort and strategies instead of worrying that they are incompetent. (Siraj-Blatchford, 2004, p. 11)

Learning Stories are one of the common methods of documentation in the MOE assessment resource, *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars* (Ministry of Education, 2005b).

Teachers/educators were making less use of time sampling (16 percent in 2007, 40 percent in 2003), event recording (19 percent in 2007, 41 percent in 2003), and checklists (13 percent in 2007, 22 percent in 2003) as methods of collecting data about learning in 2007. According to Carr (2001), these may be less useful than qualitative and interpretive methods for assessing complex outcomes of learning dispositions, the learner-in-action, and -in-relationships, which require observations to be interpreted in discussion with others.

Use of data collected

Kei Tua o te Pae notes that "The phrase 'assessment for learning' implies an assumption that we develop ideas about 'what next'?" (Ministry of Education, 2005b, Book 1, p. 11), and how to respond to what children have done. The most common use made of data was for providing feedback for parents/whānau.

Table 7   **Teachers/educators' use of data gathered in 2007**

Use of data gathered	Teachers/ educators (n=401) %	Types differing markedly from overall proportion
Provide feedback for parents/whānau	91	Kōhanga reo (71%)
Monitor children's progress	85	Kōhanga reo (100%), home-based (71%)
Develop a relevant programme for individual children	81	Home based (93%), playcentre (58%)
Develop a relevant programme for group/s of children	79	Kindergarten (91%), playcentre (68%), home-based (57%)
Evaluate the programme	78	Playcentre (58%), kōhanga reo (57%), home-based (50%)
Evaluate the teachers/educators' practice	76	Playcentre (58%), kōhanga reo (57%), home-based (50%)
Provide feedback for children	71	Kindergarten (86%), home-based (86%), playcentre (52%), kōhanga reo (29%)
Develop individual plans	68	Kōhanga reo (43%), Playcentre (37%)
Provide information to school/kura when child enrols	31	Kōhanga reo (57%), kindergarten (43%), playcentre (13%), home-based (7%)
Other	1	

NB: Percentages add to more than 100 because multiple responses were possible.

Parent-led services made less use of data for evaluation and for developing individual plans than teacher-led services. Fewer educators in playcentre and kōhanga reo provided information to the school/kura when the child enrolled. Playcentre children are more likely to move to another ECE service type before starting school. In home-based settings, there seemed to be fewer connections between the home-based service and school/kura.

The use teachers/educators made of documentation also increased from 2003. In 2007, teachers/educators were making greater use of documentation to evaluate their practice (76 percent in 2007, 61 percent in 2003), evaluate the programme (85 percent in 2007, 78 percent in 2003), and provide feedback for children (71 percent in 2007, 62 percent in 2003). These practices are consistent with the emphasis in *Te Whāriki* on the use of assessment for children and adults to help "improve the ways that the programme meets children's needs. Feedback to children on their learning and development should enhance their sense of themselves as capable people and competent learners" (Ministry of Education, 1996, p. 30).

There was a decrease in teachers/educators using assessment for developing individual plans (66 percent in 2007, 87 percent in 2003). It is difficult to interpret this trend, which seems inconsistent with use of assessment to help improve the ECE programme. Perhaps teachers/educators were developing plans for learning and development to suit groups of children rather than focusing on individuals alone, or perhaps the meaning of the word "plans" fitted an old frame of thinking.

Forty percent of teachers/educators said they passed a child's assessment portfolios on to schools or kura when the child enrolled there, so there is still a disconnection between these education levels in terms of making the most use of assessment for children's ongoing development. Kindergarten teachers (53 percent) were more likely to report this practice, and home-based (7 percent) and playcentre educators (11 percent) were less likely to report this.

Use of *Kei Tua o te Pae*

Seventy-two percent of teachers/educators had made use of *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars.* A higher proportion of kindergarten teachers (88 percent) and a lower proportion of kōhanga reo (29 percent), home-based (57 percent), and playcentre educators (60 percent) had used this resource. The first four books (Introduction, Sociocultural assessment, Bicultural assessment, and Children contributing to their own assessment) were most commonly used.

Table 8 **Teachers/educators' use of *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars* in 2007**

Books used	Teachers/ educators (n = 401) %	Types differing markedly from overall proportion
Book 1: Introduction	54	Kindergarten (69%), kōhanga reo (0%)
Book 2: Sociocultural assessment	54	Kindergarten (76%), playcentre (32%), kōhanga reo (0%)
Book 3: Bicultural assessment	54	Kindergarten (76%), playcentre (27%), kōhanga reo (14%)
Book 4: Children contributing to their own assessment	53	Kindergarten (76%), home-based (43%), playcentre (37%), kōhanga reo (14%)
Book 5: Assessment and learning: Community	47	Kindergarten (69%), home-based (36%), playcentre (24%), kōhanga reo (14%)
Book 6: Assessment and learning: Competence	44	Kindergarten (64%), playcentre (21%), kōhanga reo (0%)
Book 7: Assessment and learning: Continuity	43	Kindergarten (60%), playcentre (18%), kōhanga reo (0%)
Book 8: Assessment for infants and toddlers	34	Playcentre (26%), kōhanga reo (0%)

NB: Percentages add to more than 100 because multiple responses were possible.

According to many teachers/educators, *Kei Tua o te Pae* helped them to understand the theoretical basis and usage of assessment, as well as ways to involve the wider learning community. The most common difference it had made was in teachers/educators being better able to use assessment for learning and development (68 percent). *Kei Tua o te Pae* helped teachers/educators to encourage children to self assess (52 percent), to be better able to involve families (50 percent), to understand sociocultural theory (47 percent), and to develop bicultural frameworks (40

percent). A minority, 12 percent of teachers/educators, who had used *Kei Tua o te Pae* thought it had not made much difference to what they did before, and 5 percent thought it "did not tell them anything new".

Teachers/educators who said they had used *Book 3, Bicultural assessment*, were much more likely to also state *Kei Tua o te Pae* had helped them to develop bicultural frameworks (97 percent), than were teachers/educators who had not used this book (36 percent).

Similarly, teachers/educators who had used *Book 4, Children contributing to their own assessment*, were much more likely to state *Kei Tua o te Pae* had helped them to encourage children to self assess (90 percent), than were teachers/educators who had not used this book (30 percent).

Involving children in assessment

In 2007 only, teachers/educators were asked to mark from a list the ways in which children were involved in their own assessments. Most teachers/educators (97 percent) used assessment portfolios. Eighty-four percent marked that children revisit their portfolios (with or without the teacher). Less than half marked that children used resources for feedback, made their own judgements about their achievements, and decided what is recorded in their assessment portfolios.

Table 9   **Children's involvement in their own assessments in 2007**

How children are contributing to their own assessment	Teachers/ educators (n = 401) %	Types differing markedly from overall proportion
Children revisit their assessment portfolios, with or without the teacher	84	Kindergarten (98%), home-based (71%), kōhanga reo (29%)
Children may use resources to provide feedback about their performance	43	
Children use earlier work in their assessment portfolios to judge current success or progress	36	Kindergarten (61%), home-based (21%), playcentre (18%), kōhanga reo (14%)
Children make their own judgements about their achievements	32	Playcentre (16%), kōhanga reo (0%)
Children decide what should be recorded in their assessment portfolios	29	Kindergarten (49%), playcentre (15%), kōhanga reo (0%)
Children correct their assessment portfolios	7	

NB: Percentages add to more than 100 because multiple responses were possible.

Kei Tua o te Pae offers two reasons for teachers/educators to encourage children to contribute to their own assessments:

> Firstly, research on assessment and motivation indicates that *settings that encourage children to set and assess their own goals are rich sites for learning*. Part of the reason is that children who contribute to their own (and others') assessments are seen as competent

and confident learners and communicators (*Te Whāriki*, p. 9). . . Secondly, *seeking children's perspectives about their learning is about viewing children as social actors* with opinions and views of their own. (Ministry of Education, 2005, Book 4, p. 106)

In New Zealand research in Māori medium school settings, Bishop, Berryman, and Richardson (2001) found that effective teaching involves "students being encouraged to be part of their own evaluation, to determine what was to be evaluated and what satisfactory performance looked like for themselves" (p. 203). The findings in this survey suggest that in many settings, children are being given opportunity to refer to and use their assessment portfolios, and around a third of settings encourage children to evaluate and record their performance.

Parent involvement in teaching and learning

Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars (Ministry of Education, 2005b) emphasised the importance of families being part of the assessment and evaluation of the curriculum and of children's learning and development.

The longitudinal Effective Provision of Preschool Education Project in the UK (Siraj-Blatchford, 2004) found that children had better cognitive and dispositional outcomes when ECE services encouraged continuity of learning between ECE settings and homes, and where a special relationship in terms of *shared educational aims* had been developed with parents, and pedagogic efforts had been made at home to support children. Whalley and the Pen Green Centre Team (2007) in Corby, England, have shown how staff, working from an empowering perspective within Pen Green's multiservice provision, developed "a shared language with parents and a shared understanding about how children develop and how children learn, both at home and in the nursery" (p. 201). They argued that developing a shared language takes "consummate skill and continuous professional development", and that "working in this way produces outcomes that transform children's life chances" (p. 201). These power-sharing practices with parents and whānau were also found in Bishop et al.'s (2001) study to help create culturally appropriate and responsive contexts for learning in Māori medium schools.

There was a big positive shift in parent involvement in teaching and learning processes from 2003 to 2007. According to parents, 80 percent were involved in these processes in 2007, compared with 53 percent in 2003. Fewer of these were home-based and kōhanga reo parents.

The main ways parents were involved were in providing home stories for the portfolio (61 percent) and taking their child's assessment portfolios home (56 percent). Fewer parents were actually invited to participate with teachers/educators in assessment and planning or in helping interpret data about their child.

Table 10 **Parents' involvement in teaching and learning processes in 2007**

How parents are involved	Teachers/ educators (n=401) %	Types differing markedly from overall proportion
Parents take assessment portfolios home	81	Playcentre (69%), kōhanga reo (57%)
Assessment portfolios are regularly accessed by children and parents	81	Kōhanga reo (43%)
Parents provide home stories, commentary, and/or information for their child's portfolio	79	Kōhanga reo (29%)
Parents bring resources from home	67	Kōhanga reo (43%), home-based (36%)
Parents are invited to participate in planning, assessment, and evaluation	55	Playcentre (94%), home-based (71%), kōhanga reo (71%), education and care (45%)
Parents contribute to the education programme	53	Playcentre (90%)
Parent workshops or evenings on education matters are held	47	Playcentre (76%), home-based (36%), kōhanga reo (29%), kindergarten (26%)
Parents can take educational resources home	46	Playcentre (68%), kindergarten (57%), kōhanga reo (29%), home-based (14%)
Parents help interpret data about their child	38	Playcentre (66%), home-based (50%), kōhanga reo (14%)

NB: Percentages add to more than 100 because multiple responses were possible.

Teachers/educators had consistently higher estimates of parental involvement than parents reported, perhaps because teachers/educators were responding in relation to some or most parents as a group, while parents were responding as individuals. As with the parent survey, teachers/educators ranked parents taking their child's portfolio home and parents providing home stories for their child's portfolio as parents' most common form of involvement.

Despite their high levels of involvement in teaching and learning in 2007, 32 percent of parents wanted more information about their child than they were getting, and this was higher than in 2003 (18 percent). The main information parents would like was ideas about how to support their child's learning, more detailed information about their child's progress, and more regular reports and information about assessment for their child's learning. It is unclear why the percentage of parents wanting more information about their child was higher in 2007 than 2003. It may be that in 2007 parents were more aware of how they could contribute to their child's learning and development, and held a keener appreciation of what they might expect from their ECE service.

Barriers to assessment

Teachers' views of barriers to assessing, documenting, planning, or evaluating in the way teachers/educators would like had not changed from 2003 to 2007. Insufficient time during the

working day was the most common barrier (59 percent of teachers/educators). Several comments were made that even where there was noncontact time, it was used for other purposes or not able to be taken:

> Too much other admin and time line requirements. (Kindergarten teacher)

> We do have noncontact time, but it is often cancelled because we are needed on the floor. (Education and care teacher)

Kindergarten teachers commented on the large number of children to write about:

> Getting to know children reasonably in depth, given our ratios (15:1), in order to recognise and respond to each child's interests and developmental needs. Sheer numbers—when full (and with part-timers) we can have over 60 children for 2 teachers to write about. (Kindergarten teacher)

Playcentre educators commented on challenges in getting all the parent educators together:

> To get a large number of parents to be involved together in planning. (Playcentre educator)

Other comments also reinforced the importance of working as a team within ECE settings, and difficulties if there was a high level of teacher turnover:

> Not much teamwork in planning, evaluation. It's all very onesided—the manager decides everything with her favourites. (Education and care teacher)

> We completed a planning and assessment workshop last year (through ACE) but two out of four staff have left and we are still trying to replace one person. The other person has been replaced by a nonqualified person (has overseas qualification) so it is hard to maintain consistency. (Education and care teacher)

Teacher turnover is discussed in the second thematic report (Mitchell, 2008b).

The next most common barrier was not having access to appropriate tools (10 percent), and lack of adequately qualified staff (4 percent). Home-based educators were more likely to state not having access to appropriate tools (21 percent) and lack of adequately qualified staff (12 percent) were barriers to assessment. Kōhanga reo kaiako (two of seven) and home-based educators (14 percent) were more likely than teachers/educators overall (4 percent) to state they had insufficient knowledge of assessment practices.

Resources and surroundings

In this section, we report on teachers/educators' ratings of the quality of teaching and learning resources, children's and adults' spaces, and access to and use of ICT.

Teaching and learning resources

Teachers/educators from all services were reasonably satisfied with the teaching and learning resources at their disposal for children's learning needs, with less than 7 percent rating them as "poor" or "very poor". The biggest negative shift in ratings was in resources for early numeracy (although most teachers/educators rated these resources as "good" or "very good" in both years). In both 2003 and 2007, professional reading resources for parents and staff were more limited in most services, except for playcentre parent resources.

Table 11 **Teachers/educators' ratings of quality of teaching and learning resources in 2003 and 2007**

Resource (n=402)	Overall proportion rating this in 2003 as: %			Overall proportion rating this in 2007 as: %		
	Good	Satisfactory	Poor	Good	Satisfactory	Poor
Creative play	86	10	2	84	12	4
Blocks	85	10	3	83	12	4
Early literacy	83	12	2	77	17	5
Early numeracy	81	15	3	72	20	6
Outdoor equipment	74	20	6	68	25	6
Expressive play	70	25	5	69	24	6
Professional publications for staff	58	31	10	50	35	13
Parent library	48	31	18	45	32	21

Home-based educators rated their learning resources lower than others in 2007 and 2003.

Physical resources and space

Children's indoor and outdoor spaces and furniture resources were also well provided for in most ECE services, but adult spaces and furniture were poorly resourced. The picture was similar in both 2003 and 2007.

Table 12 **Teachers/educators' ratings of children's and adults' space and furniture in 2003 and 2007**

Spaces and furniture (n=402)	Overall proportion rating this in 2003 as: %			Overall proportion rating this in 2007 as: %		
	Good	Satisfactory	Poor	Good	Satisfactory	Poor
Outdoor space	79	14	6	76	18	4
Furniture for children	77	19	4	74	20	3
Indoor space	68	26	7	66	25	6
Space for resource storage and preparation	37	34	27	34	33	31
Office space	35	25	37	33	28	35
Adults' furniture	32	38	26	31	39	26
Staffroom space	28	22	45	30	22	43
Ease of access/flow (2007 only)				71	21	6

ICT

Access to ICT

Table 13 shows the availability of a range of ICT equipment in the ECE services in 2003 and 2007. In 2007, most services had a digital camera and computer, three-quarters had email and Internet access, and over half had access to a scanner. A big increase in the percentage of services accessing a digital camera, email, Internet, scanner, and data projector is evident. These pieces of ICT equipment can be used for teaching and learning purposes.

Playcentre access to ICT was significantly lower than other services.

Table 13 **Access to ICT in 2003 and 2007**

Types of ICT	Managers %	
	2007 (n=223)	2003 (n=242)
Digital camera	97	53
Laminator	89	
Computer	88	81
Photocopier	87	
Email	76	64
Internet	75	59
Scanner	60	29
Television	53	
Video equipment	28	28
Data projector	18	6

Staff ratings of their ICT resourcing and access

Just over half the teachers/educators rated their computer software, computer hardware, and other technology as "good" or "very good", and rather more rated their computer consumables as "good" or "very good". Playcentre educators reported much lower ratings of ICT quality in their playcentre than teachers/educators in other kinds of service, particularly kindergartens.

Internet access and ICT technical support were the two aspects rated the poorest.

Table 14 **Teachers/educators' ratings of quality of ICT resources in 2007**

Resource (n=401)	Overall proportion rating this as: %			Types differing markedly from overall proportion
	Good	Satisfactory	Poor	
Computer consumables (such as paper, toner, ink-cartridges, disks)	61	22	14	Playcentres (poor)
Computer software (programs or applications such as Word, Outlook, Internet Explorer, CD ROMs)	52	22	23	Kindergartens (good), playcentres (poor)
Computer hardware (such as computers, printers, modems)	51	24	23	Kindergartens (good), playcentres (poor)
Other technology (such as data display, OHP, digital camera)	51	33	13	Playcentres (poor)
Internet access	44	20	27	Kindergartens (good), playcentres (poor)
ICT technical support	38	29	30	Playcentres (poor)

Most teachers/educators used ICT for documenting children's learning, creating portfolios, and developing resources. The biggest shifts from 2003 to 2007 were in greater use of ICT for documentation and development of assessment portfolios, and towards assisting children to use ICT for particular purposes, especially to revisit their work. These shifts are consistent with the greater focus on assessment documentation and on children's engagement in their own assessments that teachers/educators reported for 2007. They reflect guidance in the MOE ICT strategy, *Foundations for Discovery* (Ministry of Education, 2005a), to use ICT as a tool to support learning through, for example, enhancing communication about children's learning and development with parents and engaging children in evaluating and celebrating their own learning, and the learning process.

In all of these seven aspects of ICT use, playcentre educators were under-represented and kindergarten teachers were over-represented. Nineteen percent of playcentre educators said they did not use ICT.

Table 15 **Teachers/educators' use of ICT to support children's learning in 2003 and 2007**

Usage	2007 (n=401) %	2003 (n=402) %
Documenting children's learning	83	63
Creating portfolios	81	67
Developing resources	61	57
Helping children revisit work	41	26
Assisting children to use ICT	40	31
Promoting social interactions	39	28

Teachers/educators used ICT to communicate with parents in producing newsletters, pamphlets, and notices (80 percent in 2007, 78 percent in 2003), making learning visible via documentation (78 percent in 2007, 55 percent in 2003), and recording and documenting parent views (45 percent in 2007, 24 percent in 2003). The higher use of ICT for making learning visible in 2007 aligns well with the finding that parents were more involved in assessment for their child's learning in 2007, particularly in contributing to their portfolios. The closer working relationships with parents found in 2007 relative to 2003 also seem to be reflected in this finding of greater use of ICT to record and document parents' views in 2007.

Children's use of computer was higher in 2007 than 2003 according to teachers/educators. Thirty-eight percent of teachers/educators said that children did not use a computer in 2007, compared with 52 percent in 2003. Children's computer use varied considerably between service types in 2003 and 2007. More playcentre educators (66 percent) and fewer kindergarten teachers (8 percent) said children do not use a computer in their ECE service.

When children do use a computer, they work on alphabet recognition (35 percent), pattern recognition (35 percent), or other types of games (38 percent). These usage levels are similar to those found in 2003 for these aspects. In 2007, more teachers/educators reported children using the Internet to find out things (27 percent in 2007, 6 percent in 2003), using a graphics program (19 percent in 2007, 9 percent in 2003), and using a computer to write a note or for role play (16 percent in 2007, 5 percent in 2003).

Many more children were using a camera to take photographs in 2007 (38 percent compared with 4 percent in 2003). Ten percent were using a fax to communicate with others, 5 percent were using emails, and 2 percent were using photocopiers in 2007, up slightly on 2003 percentages.

On each of these aspects, children's ICT use as reported by teachers/educators was relatively higher in kindergartens than in other services.

Professional learning

The MOE offers contestable contracts for delivery of professional development linked to the ECE curriculum, *Te Whāriki*. Professional development providers include university colleges of education, some ECE representative organisations, and some private providers. In addition, professional development and support is provided for kindergarten teachers through kindergarten senior teachers, and for playcentres through playcentre associations. Teachers/educators are not required to undertake professional development and in some isolated localities they have to travel to participate in professional development.

In this section, the delivery, uptake, and value of professional development is examined from teachers/educators' perspectives.

Very few teachers/educators (5 percent) had no professional development in the previous year and most listed professional development in several areas. The most common focus of professional development in 2007 was teacher appraisal/performance management (47 percent), assessment (45 percent), te reo and tikanga Māori (33 percent), evaluation (32 percent), and children's behaviour (31 percent). These were the same most common areas in 2003, except that in 2003 professional development about educational theory was also a common focus.

There were some differences between ECE service types in how many teachers/educators had participated in professional development in particular areas:

- More kindergarten teachers had participated in professional development—upgrading their ICT skills, children's use of ICT, teacher appraisal/performance management, and assessment.
- More playcentre educators participated in professional development in working with parents and te reo and tikanga Māori, but less in teacher appraisal/performance management and upgrading their ICT skills.

- Kōhanga reo kaiako were more likely to have participated in professional development in te reo and tikanga Māori and outdoor play, but less in upgrading their ICT skills (but low numbers).
- Home-based educators and education and care service teachers were close to the overall percentages in their participation in different professional development areas.

## Delivery of professional development for teachers/educators

The most common delivery forms for teachers/educators' professional development were one-off seminars or conferences (66 percent) followed by service-wide professional development focused on teachers/educators' own service (53 percent). Thirty-four percent undertook their own personal study, 22 percent attended a conference of an educational organisation, and 14 percent reported undertaking action and inquiry-based learning. There were no substantial changes between 2003 and 2007, except for a drop in teachers/educators undertaking personal study (down from 44 percent). Kindergarten teachers were more likely than others to participate in service-wide professional development focused on their own kindergarten.

Kindergarten teachers also reported more hours of professional development per year, but average hours for teachers/educators in each service type were fairly close (kindergarten, 23 hours; home-based, 21 hours; kōhanga reo, 20 hours; education and care, 19 hours; playcentre, 15 hours).

Professional learning was regarded as beneficial, with most teachers/educators agreeing or strongly agreeing that it helped them try out new practices, offer new ways to engage children, or identify areas to develop. Somewhat fewer teachers/educators (but nevertheless over half) agreed that professional learning challenged their assumptions or beliefs, offered them new ways to use data to plan teaching, or offered new ways to use data to give feedback and elicit feedback from families.

These aspects of practice are important for effective teaching linked to outcomes for children. A recent literature review on outcomes of ECE (Mitchell, Wylie, & Carr, 2008) reinforced the importance for cognitive development gains of engaging children to investigate and think for themselves. It also found that "greater distribution of power or responsibility to children, and engagement of families focused on pedagogical outcomes are factors supporting learning dispositions and social competence" (p. 93). In terms of processes of professional development, Mitchell and Cubey (2003) found that collaboration with others and being exposed to different views was a mechanism enabling teachers/educators to investigate and challenge assumptions, such as deficit assumptions associated with children from particular groups.

Figure 1 **Usefulness of professional learning in 2007 (n = 401 teachers/educators)**
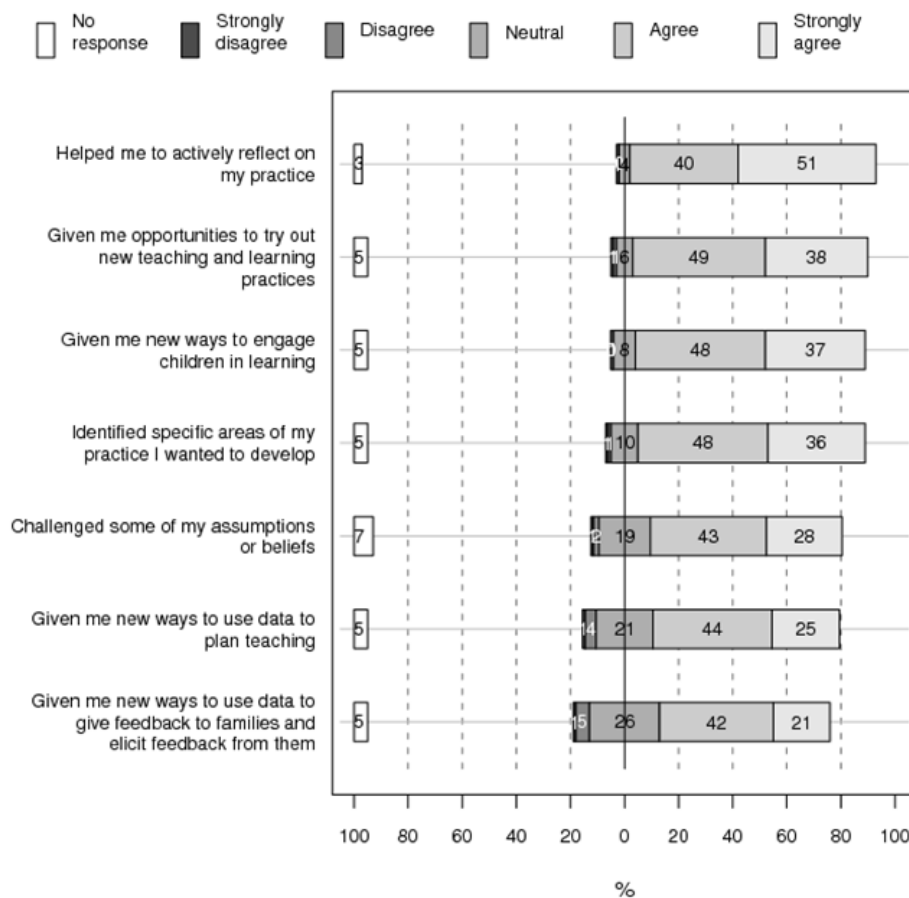
Teachers/educators' most useful ideas for their ECE programme over the previous two years had come from other teachers or educators in their own ECE service. Teachers/educators sharing and discussing their work together could be a way that individual professional development is able to influence other teachers/educators. This finding reinforces the value of teachers/educators having internal learning conversations and acting as professional learning communities, and having time factored in for this to occur.

Other important sources for useful ideas noted by over 40 percent of teachers/educators were one-off conferences and courses, readings and research, professional development advisers, and personal education and training.

Table 16 **Sources of teachers/educators' most useful ideas in the last two years (2007 and 2003 data)**

Usage	2007 (n=401) %	2003 (n=402) %	Types differing markedly from overall proportion in 2007
Other teachers/educators in the ECE service	73	76	Playcentre (53%)
One-off conferences and courses	59	56	Home-based (71%), playcentre (44%)
Reading and research	50	52	Kindergarten (62%), playcentre (31%)
Professional development adviser	44	Not asked	
Personal education/training	42	Not asked	
Teachers/educators from other ECE services	38	Not asked	
Professional resources, e.g. booklets	37	Not asked	Playcentre (23%)
Ongoing whole service professional development	36	41	Kindergarten (51%), playcentre (13%)
Visit to another ECE service	34	39	Home-based (7%)
Learning community in own ECE service	29	Not asked	
Internet	20	18	Home-based (7%)
Centre of Innovation publications and workshops	18	Not asked	
Assessment tools	18	Not asked	

Teachers/educators were asked how they accessed research information on ECE issues. The most frequent ways were through teacher education providers (49 percent), personal contact (48 percent), Internet (46 percent), seminars and conferences (45 percent), ECE organisations (44 percent), and journal subscriptions (43 percent).

Forty-five percent of teachers/educators had a particular area of advice/information that they felt they needed for their work but were missing out on, similar to the 46 percent of teachers/educators in 2003. The main areas were: stress management (18 percent); children with special educational needs (15 percent); ICT use (13 percent); and children's behaviour (12 percent).

Advice and support for children with special educational needs

The MOE describes special educational needs as falling into the following categories: Learning, including developmental delay; Vision; Hearing; Physical; Communication; Behaviour; Social and emotional.

Bearing in mind these categories, 69 percent of teachers/educators said their service had one or more children with special educational needs. A higher percentage of kindergarten teachers said their kindergarten had at least one child with special educational needs (92 percent) and a lower percentage of playcentre educators (44 percent) and home-based educators (29 percent) said their service had at least one child with special educational needs. Kindergartens also had more children with special educational needs than other service: 51 percent had four or more children, compared with 19 percent of education and care centres, 5 percent of playcentres, and one of 11 home-based networks. Two kindergartens had 18 children with special educational needs.

Only 10 parents said their child had special educational needs. All of these children had access to specialist support. The only additional support one kindergarten parent would like was for the kindergarten to have better staff:child ratios.

Perceptions of usefulness of advice and support

Thirty-nine percent of teachers/educators said they had children who were not receiving assistance for special educational needs, for whom they would like such assistance. Most of these wanted assistance for one, two, or three children.

Teachers/educators were asked to state whether they had received particular forms of advice and support, and how useful they had found it. The picture indicates that the most useful advice and support was received from people who knew the child intimately and/or had specialist knowledge. Advice and support received from parents was the most useful, a finding that reinforces the importance of close working relationships with families. The next most useful advice and support came from Group Special Education (GSE), and then from having an Education Support Worker in the service. Initial teacher education and professional development were the least useful.

Figure 2 **Usefulness of advice and support in 2007 in relation to children with special educational needs (n = 401 teachers/educators)**
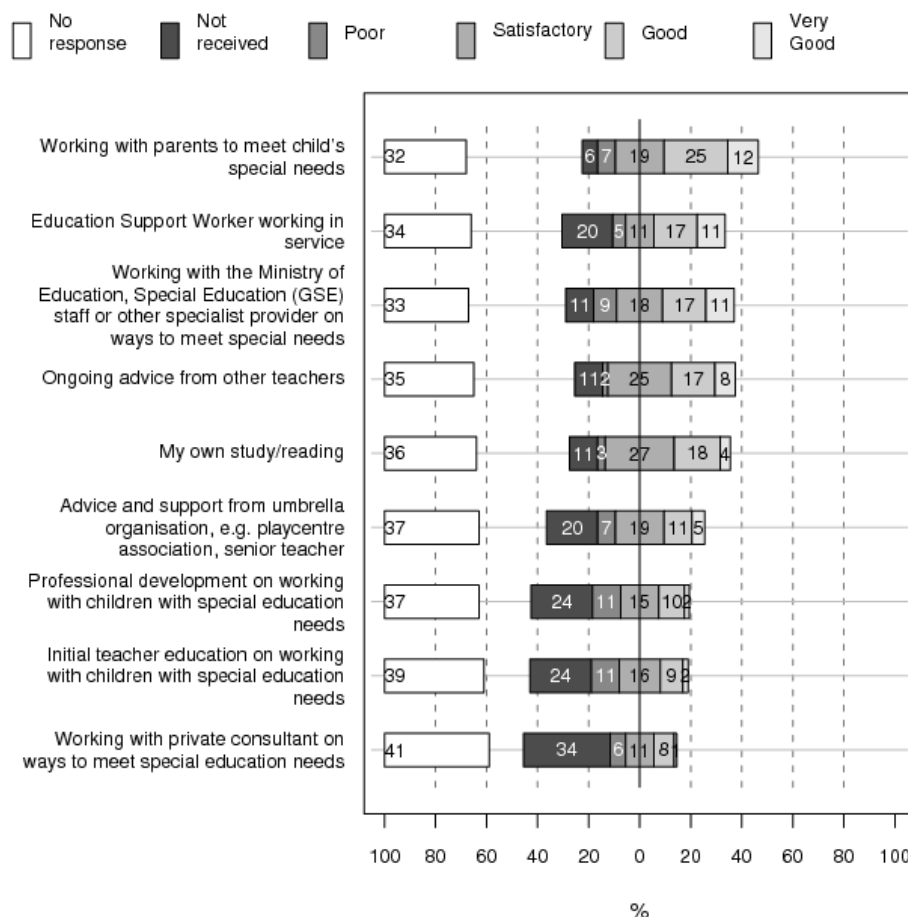
The aspects that teachers/educators thought would be most helpful for these children and for the service were:

- Education Support Worker time
- more specialist support
- better co-ordination with other agencies, e.g. health.

Teachers/educators were asked whether there was anything else they would like to say about their experience of working with special educational needs. Overall, the comments indicate that teachers/educators want timely specialist advice when it is needed, additional staffing resources (particularly staff who are qualified to work with children with special educational needs), and good communication amongst staff involved in working with children with special educational needs. These main priorities were also found in *An Evaluation of the Initial Uses and Impact of Equity Funding* (Mitchell, Royal Tangaere, Mara, & Wylie, 2006), where participants described a range of children's special educational needs for which they wanted specialist advice and support. In particular, they wanted timely allocation of support from GSE, and additional staffing. The

special needs component of Equity Funding was not able to meet the need for access to external advice and support from established agencies such as GSE.

The most common comment was about the long time it took children to be assessed by GSE:

> It can take months until GSE is able to take up a case and get involved. The lack of training and qualified staff in our area is frustrating to us, the parent, and child. The individual people do the best they can, I am happy with the GSE staff on the whole and their support.

> Children are identified, parents consulted and working together, require GSE involvement, then you hit the brick wall of waiting lists, overworked GSE staff and either little or no support. Early intervention in the critical years of learning; yes it's identified but not properly supported. Waiting lists!!

> We have a lot of children currently with speech problems. Seems to be very hard to get these children into the system.

Some teachers/educators commented that specialists needed to trust that ECE staff and parents are able to make sound judgements that children need specialist support:

> It takes a lot to get some agencies to recognise the importance of getting assistance at the very earliest possible stage—trust that we and the parents know when a child needs to be helped.

Teachers/educators wrote of concerns that they did not have access to additional staffing, such as Education Support Workers and teacher aides, and their need for such staffing. In the quote below, the importance of teacher education and professional development about working with children with special educational needs is also underlined:

> Without teacher aide help it is not realistic to expect teachers to handle/educate/care for these children when there are 30 other children who also need teacher time. These children cause high levels of stress and frustration in teachers, we put up with physical abuse from some of them, often going home with cuts, bruises, bites. At no time during training are we given the skills to help/care and educate these children. These children have a right to be in ECE but there needs to be more support for them and the teachers. The result of lack of support is teachers leaving ECE, and parents of [other] children 'attacked' by these children threatening to remove their child.

Some teachers/educators commented on the need for Education Support Workers to be experienced and qualified:

> I feel Ministry should provide more time for ESW to work with children and these ESW should have some experience and qualification to work with our special children.

> Huge lack of knowledge and although we now have an ESW, lack of knowledge to put together things to meet the child's individual needs.

Another issue was about information sharing between ECE service staff, and between ECE service staff and specialist staff:

> For any information, I have to ask the parents what is happening at the moment because information stops at management level and is not passed on to the teaching staff.

> It needs to be filed away in the correct folder quickly, so is not discussed in any way. Can be very stressful if educators are kept in the dark about some info—e.g. what are doctors' diagnoses, e.g. autism. Health system rules and regulations are a barrier.

> We need more meetings, i.e. IPs regularly with specialist support workers, maybe once a month, not every six months.

Another issue was the need for assistance for children who did not meet criteria for GSE support or for an Education Support Worker:

> Often it is only the most severe children who receive help or are identified. It is frustrating not being able to provide greater assistance/spend more time with special needs children. Children of all abilities need us and often high needs children take up more time to [the] detriment of other children. Language therapy in preschool needs to be addressed as many children are starting school with speech problems that cause learning difficulties/social isolation, that are perpetuated in the institutionalised school system.

These findings on special education resources and professional development reflected teachers/educators' concerns. In future research studies it would be valuable to also survey GSE educators tasked with providing special education services to find out about their views and experiences. This could offer a more balanced picture.

Collaborative relationships with education institutions

Stronger collaborative relationships are a strategic plan goal, with two intermediate outcomes: coherence of education birth to age eight; and integrated services for children, parents, families, and whānau 0–8. Government actions to support coherence of education are:

- initiatives to support smooth transition to school and continuity in education
- initiatives to link ECE and family policy.

Actions to support provision of more integrated services include:

- interagency work between the MOE, Health, and Social Development to improve links in early years' services
- support for services to involve parents and whānau in teaching, learning, and assessment
- support for services to strengthen links with whānau, hapū, and iwi, and local Pasifika and other ethnic communities
- provision of parent support and development and other social services from some ECE service sites.

The survey concentrated on aspects of the first strategy—relationships with other ECE services and with schools.

Relationships with other ECE services

In 2007, the main types of contact were shared professional development with other teachers/educators (34 percent), social contact (34 percent), and shared resources (22 percent). Kindergarten teachers were more likely to share professional development (44 percent). Thirty-nine percent of teachers/educators said they had no or limited contact with other ECE services. There were no substantial shifts from 2003.

Most teachers/educators (59 percent) said no professional relationship with the other ECE service existed when children attended more than one ECE service, and 38 percent of teachers/educators said they did not always know if a child was at another ECE service. Where there was a relationship, the most common form of contact was occasional phone calls if something unusual happened. These were similar to 2003 findings.

Relationships with local schools and kura

In just over half the ECE services, teachers/educators said that children went on to attend more than two schools/kura. Transition practices are likely to be more demanding where there are several or many schools involved. The most common relationship was to share information on individual children (34 percent).

Most teachers/educators (77 percent) encouraged parents/whānau to visit the school/kura their child would attend with their child. Forty percent of teachers/educators said children's assessment portfolios went with the child to the school/kura when the child enrolled. Thirty-seven percent of teachers/educators took children to visit the school, and 31 percent reported visits from school children back to the ECE service. Home-based educators were less likely to report these practices.

In ECE services that contributed to only one or two local schools (n=149), teachers/educators were more likely to have a reciprocal visiting relationship and share activities with primary teachers, than were teachers/educators in services that contributed to three or more local schools (n=206). They were more likely to:

- take the child to visit the school (52 percent, compared with 33 percent)
- have visits from school children back to the ECE service (40 percent, compared with 33 percent)
- share events (27 percent, compared with 14 percent).

This pattern was similar to the pattern found in 2003.

On the other hand, teachers/educators in ECE services that contributed to three or more local schools were more likely to send children's assessment portfolios to the school with the child (46 percent, compared with 34 percent).

Assessment portfolios could be a key mechanism for communication between primary and ECE teachers/educators, offering ways for primary teachers to gain greater understanding of the ECE

curriculum, to build on strengths identified in ECE settings for individual children, and for developing stronger pedagogical relationships between teachers in these sectors.

Teachers/educators' main achievements

The achievements identified by teachers/educators were similar to the focus of MOE resources and professional development emphasis being offered at the time. The majority of teachers/educators from all services felt that increasing their own knowledge and skills had been one of their main achievements in the last three years, in both 2003 and 2007. Most teachers/educators regarded creating a more positive learning environment as a main achievement. The main shift from 2003 to 2007 was in more teachers/educators rating improved assessment and evaluation practices as a main achievement in 2007 (78 percent in 2007, compared with 68 percent in 2003). This aligns with teachers/educators' use and positive response to the assessment exemplars, *Kei Tua o te Pae*, and the uptake of professional development on assessment and evaluation.

Table 17 **Main achievements as a teacher/educator in last three years (2003 and 2007 data)**

Achievement	Teachers/educators 2003 (n=402) %	Teachers/educators 2007 (n=401) %	Types differing markedly from overall proportion
Increase in my own knowledge and skills	83	82	
Creating a more positive learning environment	76	75	
Better at meeting needs of individual children	70	68	
Improved assessment and evaluation practices	68	78	Kindergarten (90%), playcentre (58%)
More confident using *Te Whāriki*	64	60	Home based (79%)
Involvement of parents with children's learning	60	65	
A more creative and responsive programme	57	56	Playcentre (36%)
Better at meeting needs of a particular group	47	52	
Improved collaboration with community organisations	20	27	Home-based (7%)
Fostering learning at deeper levels	Not asked	74	
Better at listening to children	Not asked	63	

Overall parental satisfaction levels

Overwhelmingly, parents were satisfied with their ECE service: 93 percent rated their overall satisfaction level as "good" or "very good".

Most parents from teacher-led services thought that their child's relationship with teachers/educators and qualities of the staff were the best thing about their ECE service:

> The relationships formed between the teachers and my child. I am confident that while I am unable to care for my child during the day she has nurturing teachers who have her best interests and care for her as well as educate her. Some of the relationships become more like family than of education and child. (Education and care parent)

> The way they treat my son. He feels and they often excitedly show interest in what he achieves and what he does and show me with enthusiasm. Yet they are firm also. Plus they give you a fantastic record of what your child did while with them, e.g., photos, information, DVDs, etc. when you leave. (Kindergarten parent)

> Lovely home environment, my son has a great relationship in an unhurried home. Four children at one time. More parents need to be made aware of home care especially for their babies. (Home-based parent)

Most playcentre parents thought their child's learning and parental participation in the playcentre was the best thing about their ECE service:

> Very friendly welcoming environment, being involved in my child's education, good child:adult ratio, everyone being involved in the kid's education. Great friendships between all adults and children. Wonderful caring enthusiastic educator, who goes the extra mile. The children get to experience things they might not at home, i.e. messy play. So many opportunities!! Education for parents.

> I can play alongside my child; learn with and about him. Plan for his needs in a child-directed way. Good social/community networks/support established. Fees are very affordable. Convenience. Relative flexibility to change days/sessions. Have lots input on directions and children's learning/development.

Kōhanga reo parents identified a combination of characteristics: qualities of the staff; whānau participation and responsibility; and language and culture learning:

> The level of whānau participation. There is an expectation to contribute positively to the overall wellbeing of our kōhanga reo. We are very lucky to have the staff we presently have. The best thing is to bear witness to the development and progress of child.

> Te Reo Māori kaiako. Kaupapa Māori learning/teaching. Excellent kaiako.

> What my child brings home—te reo. She is keeping the language alive and teaching her mummy at the same time.

4. Conclusion

This survey offers very positive findings.

Overall, parents expressed a high level of satisfaction with their child's ECE service and were very appreciative of the qualities of teachers/educators and educators, the relationships within the ECE setting, and opportunities for their own participation in parent/whānau-led services.

Teachers/educators enjoyed their work, and most were positive about the support they got to do their job, their opportunities for learning, and their treatment. Morale levels were very high— slightly higher than in 2003, and considerably higher than for primary and secondary teachers. These aspects, and teachers/educators' employment conditions, are investigated in more detail in the other thematic report (Mitchell, 2008b).

The most impressive findings were the large positive shifts in use of narrative and credit assessment practices from 2003 to 2007, the high usage of the MOE resource, *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars*, and the positive feedback from teachers/educators that this resource had made a difference to their assessment practices. Parents' feedback indicated that parents are more involved in teaching and learning processes than they were in 2003, and children are accessing and using their assessment portfolios to revisit learning. Taken together, these findings on assessment suggest that use of *Kei Tua o te Pae* is contributing to a curriculum that is "permeable", open to contribution from all comers (Carr et al., 2001, p. 31), that is enabling teachers/educators to work with families' "funds of knowledge" (Moll, 2000), and that is enhancing teachers/educators' understanding of sociocultural theory.

There was also an impressive increase in the percentage of services accessing ICT equipment. Consistent with "the growing recognition of the many different ways that ICT can contribute to, or transform, the activities, roles and relationships experienced by children and adults in early childhood education settings" (Bolstad, 2004, p. 5), use of ICT for documentation, development of assessment portfolios, to help children revisit their work, and to promote social interactions has soared. In 2007, teachers/educators were making far greater use of ICT to make learning visible for parents and children, and teaching children to use ICT equipment, than they were in 2003.

About a third of teachers/educators were sending assessment portfolios with the child when they enrolled at school, especially teachers/educators in services contributing to more than two schools. Assessment portfolios could be a key mechanism for communication between primary teachers and ECE teachers/educators, offering ways for primary teachers to gain greater understanding of the ECE curriculum, to build on strengths identified in ECE settings for individual children, and for developing stronger pedagogical relationships between teachers in these sectors.

Teachers/educators gained the most useful ideas for their education programme from other teachers/educators in their service. This suggests the importance of opportunities for teachers/educators to work and learn together, and suggests that the MOE-funded Centres of Innovation, the Educational Leadership Programme, and other professional development initiatives which involve teachers/educators teaching others, will be valuable for teacher learning.

Some challenges were evident in 2007.

Teachers/educators would like greater support for children with special educational needs, particularly in the form of timely access to MOE Group Special Education, Education Support Worker staffing, and co-ordination amongst government agencies. They rated such advice and support higher than teacher education and professional development programmes focused on this aspect, although a minority said working with children with special educational needs was a priority in terms of professional development.

This survey and other New Zealand studies (Department of Labour and National Advisory Council on the Employment of Women, 1999; Mitchell, 2008b; Mitchell & Brooking, 2007) have found that around 20 to 25 percent of children in ECE services attend more than one ECE service. This survey found little collaboration between ECE services when children attend more than one. The common administrative and regulatory framework and ECE curriculum for all ECE services, and the shift to a common qualification requirement in teacher-led services is likely to strengthen coherence for children between settings within the ECE sector. Nevertheless, finding ways for ECE services that share the education and care of the same children to exchange information regularly may be valuable.

As was the situation in 2003, adult spaces and furniture were poorly resourced. These spaces for adults are becoming increasingly important in ECE settings, with the recognition of the value for education of teachers/educators and other adults engaging in pedagogical discussion, and of parent and community participation in ECE services.

Parent responses indicated that there was a reasonably high level of satisfaction with information from teachers/educators. However, a sizeable minority wanted more information, especially about ideas for how they could support their child's learning, and information about their child's progress. We found a higher percentage of parents wanting more information in 2007 than was found in the 2003 national survey (Mitchell & Brooking, 2007). These responses suggest that a next challenge may be for all services to further build their relationships with parents focused on pedagogy.

Overall, the survey suggests that the ECE sector is in good heart in terms of professional learning. Opportunities being offered through MOE publications and resourcing are welcomed and being used by teachers and educators to enhance their teaching and learning practices.

References

Bishop, R., Berryman, M., & Richardson, C. (2001). *Te toi huarewa. Final report to the Ministry of Education*. Wellington: Ministry of Education.

Bolstad, R. (2004). *The role and potential of ICT in early childhood education. A review of New Zealand and international literature*. Wellington: Ministry of Education.

Carr, M. (2001). *Assessment in early childhood settings. Learning stories*. London: Paul Chapman Publishing.

Carr, M., Cowie, B., Gerrity, R., Jones, C., Lee, W., & Pohio, L. (2001). Democratic learning and teaching communities in early childhood: Can assessment play a role? In B. Webber & L. Mitchell (Eds.), *Early childhood education for a democratic society* (pp. 27–36). Wellington: New Zealand Council for Educational Research.

Carr, M., May, H., Podmore, V., Cubey, P., Hatherly, A., & Macartney, B. (2000). *Learning and Teaching Stories: Action research on evaluation in early childhood education*. Wellington: New Zealand Council for Educational Research.

Cowie, B. (2000). *Formative assessment in science classrooms*. Unpublished PhD thesis, University of Waikato, Hamilton.

Dahlberg, G., Moss, P., & Pence, A. (1999). *Beyond quality in early childhood education and care. Post modern perspectives*. London: Falmer Press.

Department of Labour and National Advisory Council on the Employment of Women. (1999). *Childcare, families and work. The New Zealand Childcare Survey 1998: A survey of early childhood education and care arrangements for children*. Wellington: Labour Market Policy Group.

Dweck, C., & Leggett, E. (1988). A social cognitive approach to motivation and personality. *Psychological Review, 95*(2), 256–273.

Lawrence, R. (2004). Making sense of planning—A teacher's story. *Early Education, 36*(Spring), 15–19.

Meade, A. (Ed.). (2005). *Catching the waves. Innovation in early childhood education*. Wellington: New Zealand Council for Educational Research.

Ministry of Education. (1996). *Te Whāriki*. Wellington: Learning Media.

Ministry of Education. (2005a). *Foundations for discovery: Supporting learning in early childhood education through information and communication technologies: A framework for development*. Wellington: Author.

Ministry of Education. (2005b). *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars*. Wellington: Learning Media.

Ministry of Education. (2006). *Ngā Arohaehae whai hua. Self review guidelines for early childhood education*. Wellington: Learning Media.

Mitchell, L. (2008a). *Early childhood education services in 2007: Key findings from the NZCER national survey*. Wellington: New Zealand Council for Educational Research.

Mitchell, L. (2008b). *Provision of ECE services and parental perceptions. Results of the 2007 NZCER national survey of ECE services*. Wellington: New Zealand Council for Educational Research.

Mitchell, L., & Brooking, K. (2007). *First NZCER national survey of early childhood education services*. Wellington: New Zealand Council for Educational Research.

Mitchell, L., & Cubey, P. (2003). *Characteristics of effective professional development linked to enhanced pedagogy and children's learning in early childhood settings. A best evidence synthesis*. Wellington: Ministry of Education.

Mitchell, L., Royal Tangaere, A., Mara, D., & Wylie, C. (2006). *An evaluation of initial uses and impact of Equity Funding*. Wellington: Ministry of Education.

Mitchell, L., Wylie, C., & Carr, M. (2008). *Outcomes of early childhood education: Literature review. Report to the Ministry of Education*. Wellington: Ministry of Education.

Moll, L. (2000). Inspired by Vygotsky: Ethnographic experiments in education. In C. D. Lee & P. Smagorinsky (Eds.), *Vygotskian perspectives on literacy research: Constructing meaning through collaborative inquiry* (pp. 256–268). Cambridge: Cambridge University Press.

Nuttall, J. (2003). Exploring the role of the teacher within Te Whāriki: Some possibilities and constraints. In J. Nuttall (Ed.), *Weaving Te Whāriki. Aotearoa New Zealand's early childhood curriculum document in theory and practice* (pp. 161–186). Wellington: New Zealand Council for Educational Research.

Siraj-Blatchford, I. (2004). Educational disadvantage in the early years: How do we overcome it? Some lessons from research. *European Early Childhood Educational Research Journal, 12*(2), 5–19.

Whalley, M., & the Pen Green Centre Team. (2007). *Involving parents in their children's learning* (2nd ed.). London: Paul Chapman.

Appendix A: Characteristics of survey responses

Table 18 **Characteristics of survey responses: Services from which one response received**

	2007 Ministry ECE statistics %	2007 Sample ECE statistics %	2007 Returns %
Type			
Education and care	52	51	51
Kindergarten	16	16	22
Playcentre	12	12	18
Home-based	6	6	4
Kōhanga Reo	13	12	5
Casual	1	< 1	–
Size			
Under 11	1	1	1
11–25	27	27	25
26–30	24	26	30
31 or more	48	44	44
Location			
Main urban	71	71	68
Secondary urban	6	5	6
Minor urban	12	12	13
Rural	11	11	13
Ownership			
Community-based	66	65	71
Privately owned	34	34	28
Equity index			
1	7	7	4
2	7	7	7
3	7	7	6
4	7	7	9
None	73	72	75
Isolation index			
Yes	19	18	17
No	81	80	83

Table 19 **Characteristics of survey responses: Managers/head teachers**

	2007 Ministry ECE statistics %	2007 Sample ECE statistics %	2007 Returns %
Type			
Education and care	52	51	41
Kindergarten	16	16	42
Playcentre	12	12	7
Home-based	6	6	3
Kōhanga Reo	13	12	7
Casual	1	< 1	–
Size			
Under 11	1	1	–
11–25	27	27	20
26–30	24	26	24
31 or more	48	44	56
Location			
Main urban	71	71	74
Secondary urban	6	5	4
Minor urban	12	12	13
Rural	11	11	9
Ownership			
Community-based	66	65	72
Privately owned	34	34	27
Equity index			
1	7	7	7
2	7	7	6
3	7	7	8
4	7	7	13
None	73	72	66
Isolation index			
Yes	19	18	17
No	81	80	83

Table 20 **Characteristics of survey responses: Parent committee**

	2007 Ministry ECE statistics %	2007 Sample ECE statistics %	2007 Returns %
Type			
Education and care	52	51	33
Kindergarten	16	16	32
Playcentre	12	12	32
Home-based	6	6	–
Kōhanga Reo	13	12	3
Casual	1	< 1	–
Size			
Under 11	1	1	1
11–25	27	27	25
26–30	24	26	34
31 or more	48	44	41
Location			
Main urban	71	71	58
Secondary urban	6	5	6
Minor urban	12	12	17
Rural	11	11	19
Ownership			
Community-based	66	65	100
Privately owned	34	34	0
Equity index			
1	7	7	2
2	7	7	4
3	7	7	7
4	7	7	13
None	73	72	71
Isolation index			
Yes	19	18	20
No	81	80	80

Note that the population and sample percentages include all private centres, but the sample responses are drawn almost exclusively from community-based centres.

Table 21 **Characteristics of survey responses: Parents**

	2007 Ministry ECE statistics %	2007 Sample ECE statistics %	2007 Returns %
Type			
Education and care	52	51	50
Kindergarten	16	16	22
Playcentre	12	12	18
Home-based	6	6	4
Kōhanga Reo	13	12	6
Casual	1	< 1	–
Size			
Under 11	1	1	1
11–25	27	27	24
26–30	24	26	31
31 or more	48	44	44
Location			
Main urban	71	71	66
Secondary urban	6	5	6
Minor urban	12	12	14
Rural	11	11	14
Ownership			
Community-based	66	65	72
Privately owned	34	34	28
Equity index			
1	7	7	4
2	7	7	8
3	7	7	6
4	7	7	9
None	73	72	74
Isolation index			
Yes	19	18	17
No	81	80	82

Table 22 **Characteristics of survey responses: Teachers/educators**

	2007 Ministry ECE statistics %	2007 Sample ECE statistics %	2007 Returns %
Type			
Education and care	52	51	52
Kindergarten	16	16	26
Playcentre	12	12	16
Home-based	6	6	4
Kōhanga Reo	13	12	2
Casual	1	< 1	–
Size			
Under 11	1	1	1
11–25	27	27	21
26–30	24	26	30
31 or more	48	44	48
Location			
Main urban	71	71	71
Secondary urban	6	5	6
Minor urban	12	12	14
Rural	11	11	9
Ownership			
Community-based	66	65	71
Privately owned	34	34	29
Equity index			
1	7	7	4
2	7	7	6
3	7	7	5
4	7	7	10
None	73	72	76
Isolation index			
Yes	19	18	14
No	81	80	86