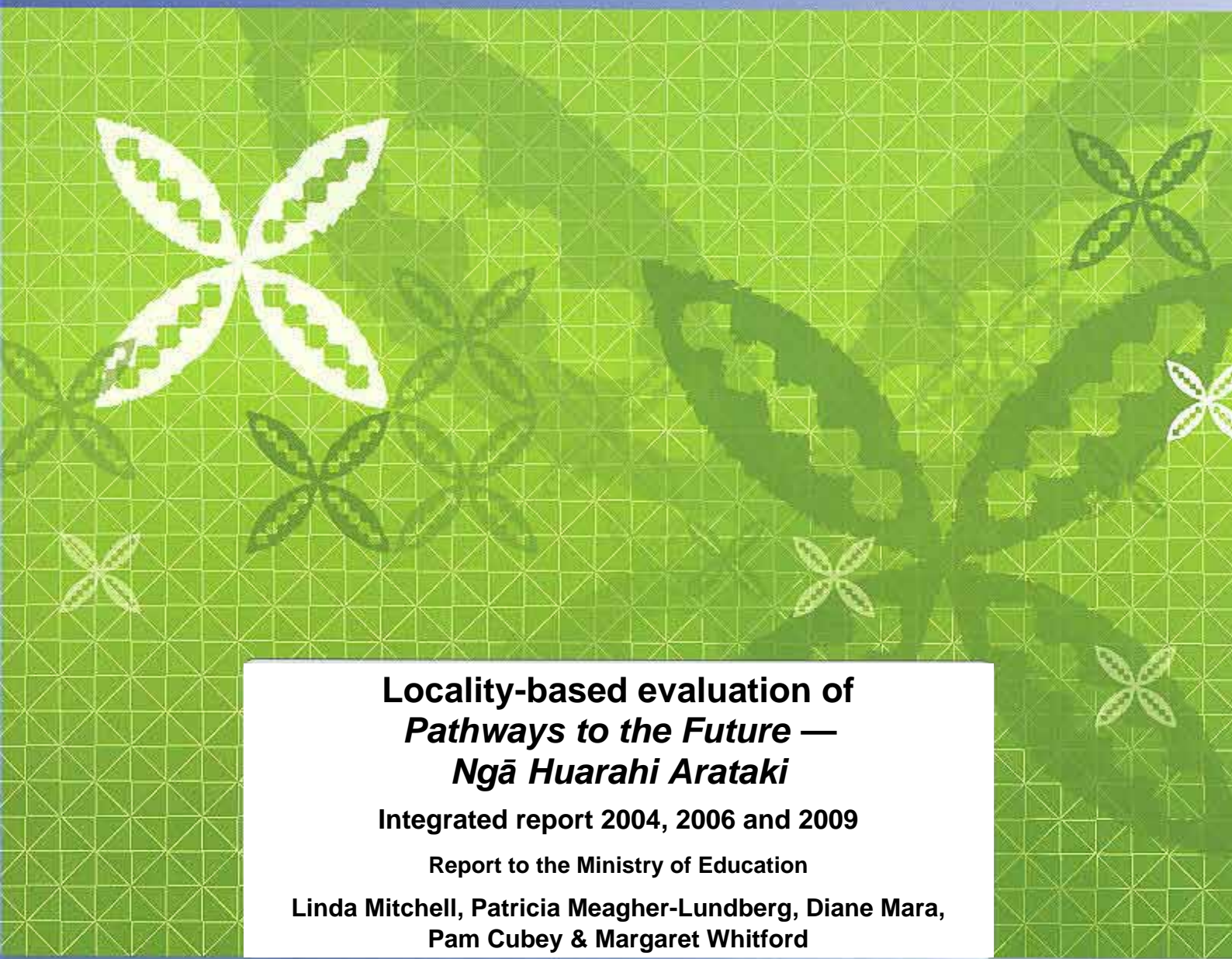




MINISTRY OF EDUCATION NEW ZEALAND

Te Tāhuhu o te Mātauranga Aotearoa



**Locality-based evaluation of  
*Pathways to the Future* —  
*Ngā Huarahi Arataki***

**Integrated report 2004, 2006 and 2009**

**Report to the Ministry of Education**

**Linda Mitchell, Patricia Meagher-Lundberg, Diane Mara,  
Pam Cubey & Margaret Whitford**

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# Locality-based Evaluation of *Pathways to the Future*: *Ngā Huarahi Arātāki*

Integrated report 2004, 2006 and 2009

Report prepared for the Ministry of Education

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*Te Whare Wānanga o Waikato*

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# Table of Contents

<b>Acknowledgements</b> .....	<b>ii</b>
<b>Table of Contents</b> .....	<b>iii</b>
List of tables .....	v
List of graphs.....	vi
<b>Executive summary</b> .....	<b>1</b>
Increasing participation .....	2
Improving ECE quality .....	3
Enhancing collaborative relationships.....	4
Supporting Parents’ ability to engage in work and training .....	5
Conclusion.....	5
<b>1. Introduction</b> .....	<b>7</b>
Pathways to the Future: Ngā Huarahi Arataki.....	7
Strategic plan implementation 2004–2009 .....	8
Locality-based evaluation.....	10
Layout of report.....	11
<b>2. Methodology</b> .....	<b>15</b>
Purpose of the evaluation .....	15
Evaluation design .....	15
Sample.....	16
Data collection in the localities .....	18
Analytic framework.....	20
<b>3. Increasing participation</b> .....	<b>25</b>
Participation – national picture.....	28
Provision and participation – ward-level picture.....	28
Participation – service-level picture .....	34
Intermediate outcomes .....	39
Strategic plan policies: <i>20 hours ECE</i> .....	49
Government policies: Managers’ views of funding initiatives .....	56
Government policies: Managers’ views of targeted participation initiatives .....	57
To what extent, in what ways and how effectively has the strategic plan increased participation in ECE?.....	58
<b>4. Improving the quality of education</b> .....	<b>63</b>
Dimensions of quality .....	64
Levels of quality and patterns of change 2004 to 2006 to 2009 .....	65
Analysis of levels and shifts on intermediate outcomes from 2004 to 2006 to 2009 .....	76
To what extent, in what ways, and how effectively has the strategic plan enhanced quality? .....	94

<b>5. Enhancing collaborative relationships</b> .....	<b>97</b>
Dimensions of collaborative relationships.....	98
To what extent, in what ways, and how effectively has the strategic plan facilitated the formation of collaborative relationships? .....	106
<b>6. ECE and paid employment and training</b> .....	<b>109</b>
Dimensions of employment and training.....	109
To what extent, in what ways, and how effectively has participation in ECE supported parents' ability to engage in work and training?.....	114
<b>7. Conclusion</b> .....	<b>117</b>
Improving quality .....	117
Facilitating the formation of collaborative relationships .....	119
Increasing participation .....	119
Supporting parents' ability to engage in paid work and training.....	120
Conclusion .....	120
<b>8. References</b> .....	<b>121</b>
<b>9. Appendices</b> .....	<b>127</b>
<b>Appendix A: Strategic plan actions</b> .....	<b>127</b>
Enhancing teaching and learning .....	127
Promoting participation .....	128
Funding.....	128
Collaborative relationships .....	128
References .....	129
<b>Appendix B: ECE quality rating scale items</b> .....	<b>130</b>
<b>Appendix C: Indicators and rubrics developed to measure strategic plan outcomes and intermediate outcomes</b> .....	<b>132</b>
Quality outcomes.....	132
The quality dimensions.....	132
Overall quality rating (service level) .....	133
Intermediate outcomes.....	134
Collaborative relationships between ECE services, with parents and whānau, schools, health and social services .....	142
[To what extent, in what ways, and how effectively] has the participation in ECE supported parents' ability to engage in work or training? .....	144
References .....	145
<b>Appendix D: Descriptions and Vignettes of ratings for teaching and learning practices</b> .....	<b>147</b>

## List of tables

Table 1:	Timeline of main ECE strategic plan actions and evaluation data .....	9
Table 2:	Characteristics of the 8 localities (2006* Census data).....	17
Table 3:	Service-level data sources in 2004, 2006 and 2009 .....	27
Table 4:	Licensed ECE service types and numbers for the eight study wards (based on database provided in 2009 by MOE).....	28
Table 5:	Enrolment hours by year and age (under three) .....	31
Table 6:	Enrolment hours by year and age (three and over) .....	31
Table 7:	Overall enrolment hours by year and age (0–5 years) .....	31
Table 8:	2004, 2006 and 2009 ECE enrolments by ethnicity .....	32
Table 9:	ECE attendance of new entrants to school in 2004, 2006 and 2009 .....	34
Table 10:	Average current age and length of time child attended ECE by service type in 2006 and 2009 .....	36
Table 11:	Average starting age* in months by service type and year .....	37
Table 12:	Hours of attendance by child age in 2004, 2006 and 2009 .....	38
Table 13:	Missing three or more sessions/days in last four weeks by income level in 2006 and 2009 .....	38
Table 14:	Missing three or more sessions/days in last four weeks by ethnicity in 2006 and 2009.....	39
Table 15:	Percent of parents with child on waiting list for another service by type and year .....	40
Table 16:	Percent of parents for whom choice of service does not meet needs (2004) or parent would like to use another service but cannot (2006 and 2009).....	41
Table 17:	Number of additional hours wanted by parents in 2006 and 2009 .....	42
Table 18:	Affordability of ECE services for parents in 2004, 2006 and 2009 .....	42
Table 19:	Average amount paid per week by parents in 2004, 2006 and 2009 .....	42
Table 20:	Average amount paid per week and affordability by family income and year.....	43
Table 21:	Percent of parents with child attending more than one ECE service or informal care arrangement by type and year .....	44
Table 22:	Percent of parents using other types of service in 2006 and 2009 .....	44
Table 23:	Problems in staffing sustainability in 2006 and 2009 .....	46
Table 24:	Parental satisfaction with characteristics of the ECE service in 2004, 2006 and 2009 .....	48
Table 25:	Parent ratings of the importance of characteristics of the ECE service in 2009 (n=595) .....	49
Table 26:	Overall parental satisfaction with ECE service in 2004, 2006 and 2009 .....	49
Table 27:	Impact of 20 hours ECE on proportion of three- and four-year-olds by service type (n=32) .....	50
Table 27:	Impact of 20 hours ECE on financial sustainability by service type (n=32) .....	51
Table 29:	Issues about 20 hours ECE expressed by some managers (n=6) .....	52
Table 30:	20 hours ECE and decision to participate in ECE by annual family income (n=559) .....	53
Table 31:	Weekly family savings made through 20 hours ECE .....	54
Table 32:	Service-level data sources in 2004, 2006 and 2009 .....	64
Table 33:	2009 levels of service performance on quality dimensions .....	66
Table 34:	Overall quality levels by service type in 2009 .....	68
Table 35:	Service types and quality levels and shifts in overall quality 2004 to 2006 to 2009 .....	69
Table 36:	Percentage of registered teachers* in 2004, 2006, and 2009 in services rated consistently 'very good' quality .....	72
Table 37:	Average observed staff:child ratios in 2004, 2006, and 2009 in services rated consistently 'very good' quality .....	72
Table 38:	Percentage of registered teachers in 2004, 2006, and 2009 in services rated consistently 'poor' or 'fair' quality .....	74
Table 39:	Average observed staff:child ratios in 2004, 2006, and 2009 in services rated consistently 'poor' or 'fair' quality .....	74
Table 40:	Centre D (downward trajectory in 2009) and staff qualifications in 2004, 2006 and 2009.....	76
Table 41:	ECE service ratings in relation to teaching and learning practices in 2009 (n=32) .....	77
Table 42:	Ratings of understanding Te Whāriki and implementing a bicultural curriculum in 2009 .....	81

Table 43:	Levels of registered teachers in teacher-led services in 2004, 2006 and 2009 (RS61).....	84
Table 44:	Observed average teacher:child ratios in 2004, 2006 and 2009 .....	85
Table 45:	Observed average group sizes in 2004, 2006 and 2009.....	85
Table 46:	Descriptions of 'very good' rating for ECE services meet cultural and language aspirations for 2004 and 2006.....	86
Table 47:	Levels of services meeting language and cultural aspirations in 2009 by service type.....	87
Table 48:	Parents' ratings that cultural practices and resources are included frequently or sometimes in the programme.....	87
Table 49:	Usage and views of MOE professional resources and support in 2009.....	93
Table 50:	Associations between overall quality and 'good'/'very good' intermediate outcomes in 2009.....	95
Table 51:	Associations between overall quality and percentage registered teachers in teacher-led services in 2009.....	96
Table 52:	Quality of relationships with parents in 2004, 2006 and 2009.....	99
Table 53:	Suggestions for enhancing collaborative relationships.....	104
Table 54:	Percent of parents in paid employment by service type in 2006 and 2009 .....	109
Table 55:	Childcare arrangements for parents in paid work.....	110
Table 56:	Use of more than one ECE service while parents working/studying in 2006 and 2009.....	110
Table 57:	Average hours of ECE service use by service type while parents working/studying in 2006 and 2009 .....	111
Table 58:	Reasons a suitable ECE and care arrangement to support parent employment could not be made .....	113

## List of graphs

Figure 1:	Framework for the evaluation of 'Pathways to the Future' .....	13
Figure 2:	Relationships between dimensions, indicators, dimension ratings and outcome rating for intended outcome 'improving quality'.....	21
Figure 3:	Overall quality shifts from 2004 to 2006 to 2009 .....	67
Figure 4:	Shifts in the dimension 'Inclusion' from 2004 to 2006 to 2009 .....	68
Figure 5:	ECE services' assessment practice ratings from 2004 to 2006 to 2009.....	78
Figure 6:	ECE service planning practices ratings from 2006 to 2009.....	79
Figure 7:	ECE service evaluation ratings from 2006 to 2009 .....	79
Figure 8:	ECE service self-review ratings from 2004 to 2006 to 2009.....	80
Figure 9:	ECE service ratings for understanding Te Whāriki from 2004 to 2006 to 2009.....	81
Figure 10:	ECE service ratings for implementing a bicultural curriculum from 2004 to 2006 to 2009.....	82
Figure 11:	Changes and levels of relationships with health services in 2006 and 2009.....	101



## Executive summary

*Pathways to the Future: Ngā Huarahi Arātāki* was a 10-year strategic plan for early childhood education published by the Ministry of Education (MOE) in 2002. It had three overarching goals to promote participation in good quality early childhood education (ECE); to improve the quality of ECE; and to enhance collaborative relationships between ECE services, parent support and development, schools, health and social services. Four supporting strategies underpinned these goals: to review regulations; review the funding system; undertake ongoing research; and involve the sector in ECE policy development.

Strategic plan action steps were developed along the way to achieve these goals. Distinctly new roles for the Government in planning and provision, in supporting teaching and learning, and in creating coordination and coherence between systems were created. Key action steps were as follows.

1. *Promoting participation*: Across New Zealand, MOE undertook analysis of the current network of ECE services. The purpose was to assist in identifying where investment in new services might be needed and where existing provision was sufficient to meet community needs. The Discretionary Grants scheme was expanded to increase funding for new ECE services in areas of low participation or high population growth. Land was set aside on new school sites for ECE provision. Targeted Promoting Participation Projects aimed to identify families who did not participate in ECE and provide options for them to start participating.
2. *Improving quality*: The Government set targets and provided initiatives to increase the proportion of registered teachers in teacher-led services. The aim was that by 2012 all regulated staff in teacher-led services would be registered teachers or at least 70% would be registered teachers and the rest would be studying for a New Zealand Teachers Council-approved qualification. Assessment and other professional resources congruent with the sociocultural framing of *Te Whāriki*, New Zealand's early childhood curriculum, were published. Funding was provided for associated professional development. The Government established and supported Centres of Innovation (COIs) to build the use of innovative approaches that improved early childhood teaching and learning based on *Te Whāriki* and to share models of practice with others in the ECE sector.
3. *Promoting collaborative relationships*: Interagency work took place between MOE, Ministry of Health and Ministry of Social Development (MSD) to improve links in early years. From 2006, MSD provided three years of funding for 10 pilot projects offering parent support and development from their service. These were extended to 16 in 2007. MOE assessment exemplars included how assessments include and construct a learning community (Ministry of Education, 2005c).
4. *Supporting strategies*: Funding was reviewed over 2003 to 2004, and a new system of funding, based on the main staffing and operational costs of service provision and with significantly enhanced rates, was implemented in April 2005. On 1 July 2007, a policy that three- and four-year-olds in teacher-led services could access up to 20 hours per week free ECE (if their service opted into the scheme) was implemented. The *20 hours free ECE* policy did not apply to all children and did not guarantee an entitled place. Optional charges and voluntary donations could be sought. The policy was subsequently renamed *20 hours ECE*.

This report synthesises findings from a locality-based longitudinal evaluation<sup>1</sup> of *Pathways to the Future: Ngā Huarahi Arātāki*. The entire evaluation provides a baseline picture of how things were in mid-2004 in eight localities in the study in relation to the three goals of the strategic plan and before the major ECE strategic plan policy changes began (Mitchell, Royal Tangaere, Mara, & Wylie, 2008), tracks changes that occurred in services and for parents between 2004 and 2006 as strategic actions got underway (Mitchell & Hodgen, 2008), and in 2009 after strategic plan actions had been in place for some time.

Four evaluation questions were asked. To what extent, in what ways, and how effectively has the strategic plan:

1. increased participation in ECE
2. improved the quality of ECE
3. facilitated the formation of collaborative relationships between ECE services, parent support and development, schools, health and social services
4. supported parents' ability to engage in work and training?

Changes from 2004 to 2006 to 2009 were measured using indicators of the intended outcomes of the strategic plan from a sample of 32 services in each of eight localities that remained in the evaluation over the time period. These were 12 education and care centres, eight kindergartens, eight playcentres, two Pasifika services and two home-based services<sup>2</sup>.

Methods included a parent survey, management questionnaire, teacher/educator interview, service profile, and observations of process quality. Process quality refers to the environment, interactions, and relationships that occur in an early childhood education setting and shape children's learning opportunities and experiences in that setting. MOE national and locality datasets were used to provide a context for changes occurring at ECE service level.

## Increasing participation

The strategic plan appears to have contributed to increased participation. Nationally, ECE participation prior to school entry increased from 92.9% in 2004, to 93.4% in 2006 to 93.9% in 2009. Average weekly hours of attendance in an ECE service also increased from 16 hours (2004) to 16.9 hours (2006) to 19.5 hours (2009).

At a locality level, the targeted participation initiatives undertaken by MOE were associated with increased provision of new services and increased participation in the localities in which they had been implemented. However, these targeted initiatives did not affect most of the ECE services in the evaluation sample.

By 2009, the *20 hours ECE* policy initiative was having a strong influence on provision and participation. The funding incentives offered by *20 hours ECE* and the new funding system enabled sessional services to increase their hours to access more funding and better meet community need. The main need expressed by parents in the sample services in 2004 and 2006 was for more hours of ECE. By 2009, this need had reduced slightly and there was a decrease in the percentage of children on waiting lists, suggesting service operation was better matched to parental needs. There was

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<sup>1</sup> The MOE evaluation strategy for the ECE strategic plan also included development of a monitoring system designed to provide indicators of progress and identify emerging problems, and targeted evaluations that both contributed to the overall evaluative picture and informed decisions about individual initiatives.

<sup>2</sup> The sample in 2004 and 2006 was of 46 services. Te Kōhanga Reo National Trust decided not to participate in the Stage 2 evaluation and as a result the eight kōhanga reo and one puna in the initial sample did not participate in Stage 2. A decision was made not to include the playgroup because of low attendance and limitations in what could be said about it. A Pasifika service had closed in 2006. Two other Pasifika services and a home-based service declined to participate.

some matching of hours of attendance of three- and four-year-olds with *20 hours ECE* and an increase in enrolments for this age group. Overall the average hours of ECE attendance increased from 10-15 hours per week in 2004 and 2006, to 17 hours per week in 2009. The 2009 hours are within the range of 15–20 hours for children over two suggested by Loeb, Bridges, Bassok, Fuller, and Rumberger (2005) as affording good opportunity for cognitive gain. In 2009, fewer children were attending ECE for just a few hours per week than in 2006 and 2004.

Improvements in the levels of funding through the funding policies were strongly associated with services having greater financial sustainability and less spare capacity in 2009 compared with previous evaluation years. Costs were much more affordable for families in 2009. *20 hours ECE* appeared to have a strong impact on increasing the number of children attending and their hours of participation, and parental decisions about participation. Seventeen percent of all parents and 30% of low income parents reported that they decided to participate in ECE because of the *20 hours ECE* policy.

### Improving ECE quality

The strategic plan was effective in contributing to sustainable good quality ECE in a majority of services that took up the various opportunities for teacher education and professional development and accessed and used MOE professional resources. In 2009, positive shifts in *overall quality* were apparent. ‘Good’ and ‘very good’ quality had been sustained or strengthened between 2006 and 2009 in 22 of the study services (69%). The variable shifts in ratings that had occurred between 2004 and 2006 were replaced with a pattern of consolidation or gain.

Positive shifts from 2004 to 2006 to 2009 occurred on the intermediate outcomes of the strategic plan, but only for the outcomes that had been a specific focus for MOE initiatives.

*Quality teaching and learning practices* improved for many services. In 2009:

- twenty-nine of the 32 services were rated as having ‘good’ or ‘very good’ *assessment* practices, up from 16 services in 2006, and one service in 2004
- twenty-four services had ‘good’ or ‘very good’ *planning* processes, up from 19 in 2006
- eighteen services had ‘good’ or ‘very good’ *evaluation* processes, up from eight in 2006
- eight services had ‘good’ or ‘very good’ *self-review* processes, up from one in 2006, and one in 2004.

*Teachers’ understanding of Te Whāriki* improved. Twenty-four services (75%) had ‘good’ or ‘very good’ ratings in 2009, compared with 15 in 2006, and nine in 2004. Ratings of *implementing a bicultural curriculum*, which had improved for about a third of individual services between 2004 and 2006 did not change in 2009, however.

The gains were clearly linked to the high and continuing usage of *Kei Tua o te Pae. Assessment for Learning: Early childhood exemplars*, the newer usage of self-review guidelines *Ngā Arohaehae whai hua. Self review guidelines for early childhood education*, Centre of Innovation publications and workshops and professional development linked to Te Whāriki. These were MOE funded strategic plan initiatives.

Taken together, the strategic plan initiatives have provided significant opportunities and affordances for a curriculum that is ‘permeable’, open to contribution from all comers (Carr et al., 2001, p.31) and that enables teachers to work with families’ funds of knowledge (Gonzalez, Moll, & Amanti, 2005). Teachers’ understanding of sociocultural theory of learning has been enhanced.

The strategic plan targets and qualification incentives led to a marked increase in the percentage of qualified teachers in teacher-led ECE services nationally and in the services in the study. A striking finding was the relationships with observed quality. One hundred percent of the staff in each of the teacher-led services that were rated 'very good' quality were registered teachers at the time the observations of quality were made. This was true in every evaluation year. Those rated 'poor' or 'fair' quality had lower levels of qualified teachers and did not take up the comprehensive opportunities for professional development or make full usage of the MOE professional resources.

Ratios and group size did not change over the period of the evaluation. These were not a focus of strategic plan initiatives. It is likely that setting targets and incentives for recommended standards for ratios and group size would support positive change in these aspects, as it did for improving qualification levels. These structural features of teacher qualifications, ratios, and group size are important since they provide conditions for the kinds of teaching and learning that lead to quality outcomes for children (Mitchell, Wylie & Carr, 2008). Qualified teachers are likely to draw on their knowledge and experience of children and pedagogy to offer the kinds of cognitively challenging adult:child interactions that are linked with gains for children. Lower ratios and smaller groups enable more interactions (National Institute for Child Health and Human Development [NICHD] Early Child Care Research Network, 2002).

## **Enhancing collaborative relationships**

### **More integrated services for children, parents and whānau**

A focus within MOE professional resources, Centres of Innovation (COI) publications and associated professional development was on teachers/educators finding out about and using families' 'funds of knowledge'. Use of these resources and take-up of professional development appear to have contributed to improvements in relationships with parents, particularly over educational aims. The percentage of services reaching 'good' or 'very good' levels of quality in their relationships with parents quadrupled over the evaluation years, from 9% in 2004 to 38% in 2009. Most parents reported that they talked with teachers/educators about their own child's progress, behaviour, and well-being, they found this communication was useful and they contributed to assessment and planning for their own child. Sixty percent of parents were participating in assessment and planning in 2009 compared with 47% in 2006 and 36% in 2004. Parents' overall 'very good' satisfaction with their ECE service also rose from 65% in 2004 to 68% in 2006 to 70% in 2009.

Relationships with health and welfare services were not supported by any particular strategic plan actions. They appeared dependent on the efforts of individuals or ECE service support management making connections or of community services reaching out to ECE services. Relationships with health services improved over the evaluation period. In most services health professionals visited to check children's health (but only if a visit was requested), health professionals talked to parents but this was infrequent and ECE services made referrals to health services. In 2009, relationships with welfare services were mixed, ranging from 'very good' to 'poor', similar to what was found in 2006 and 2004. Two localities where relationships improved over the evaluation period were undertaking initiatives for government agencies and community to work together.

Stronger connections were made with local marae in 2009 compared with 2006. Twenty-four services (75%) had contact with local marae, up significantly from three services in 2006 (10%). Some of these services were supported to make the connections with local marae by the focus within the MOE funded exemplars on relationships with community. Relationships with local Pasifika groups or organisations improved only slightly: six services had contact in 2009, up from only two Pasifika services in 2006. Most of those who did not have contact stated they did not know what organisations or groups were in their locality, suggesting that external support would assist.

### Cohesion of education from birth to eight

Strategic plan initiatives appear to have helped ECE services to strengthen professional relationships with each other. In 2009, structural support was occurring through professional development clusters, IT networks and formal ECE networks. These opportunities were not visible in 2004, when the main impetus for teachers working together was through service umbrella organisations. Relationships between local ECE services became more focused on pedagogy in 2009. Services were more likely to share professional development and to share information about children attending two or more ECE services.

Professional relationships with local schools also improved. ECE services and schools were more likely to share professional development and curriculum ideas in 2009.

### Supporting Parents' ability to engage in work and training

Participation in ECE offered greater support for parents to engage in work and training in 2009 compared with 2006. Three main shifts occurred. First, parents were more likely to use ECE alone rather than to combine non-ECE arrangements with ECE. Secondly, there was a reduction in use of more than one ECE service while parents worked or studied. Thirdly, the hours of ECE used as arrangements to support engagement in work and training increased in 2009. The changes are likely to better support children and families. They limit the need for children to make transitions from one service to another and for parents to juggle complex care arrangements for their child. Childcare barriers of cost, hours available, and choice of service type were less of a hindrance for parents who wanted to work and study in 2009 compared with 2006.

The hours available and choice of service type became more closely aligned to parental employment and study needs in 2009. Changes to service operation were largely made possible by the funding improvements, which opened up possibilities for change, and by service leadership and their willingness to consult with community about operation hours.

### Conclusion

The main message from this evaluation is that the strategic plan initiatives were being used as intended to increase participation, improve quality, and enhance collaborative relationships. The greatest gains have come from initiatives that were universally available. The evaluation provides substantial support for continuing to give good quality ECE priority in New Zealand's policy efforts to improve outcomes for children and support families.



# 1. Introduction

## Pathways to the Future: Ngā Huarahi Arātāki

*Pathways to the Future: Ngā Huarahi Arātāki* was an innovative approach to strengthening education. It was the first long-term strategic plan for any education sector in New Zealand. It was developed through extensive consultation with the ECE sector, within a framework of goals of increasing participation, improving quality and promoting collaborative relationships. The first two goals were also explicitly connected in the outline of the strategic plan:

*Government's vision is for all New Zealand children to have the opportunity to participate in quality early childhood education no matter their circumstances.* (Ministry of Education, 2002, p.1)

The strategic plan was aspirational for both the ECE sector and government. It was accompanied by significant increases in government funding and support. The main strategies as outlined in 2002 are listed below:

### To increase participation

- Focus on communities where participation is low, particularly Māori, Pasifika, low socioeconomic and rural communities.
- Be driven by the needs of those individual communities.
- Increase the Government's role in facilitating access to diverse services.
- Support ECE services to be more responsive to the needs of children, parents, families, and whānau.

### To improve quality

- Implement the curriculum (*Te Whāriki*) effectively.
- Ensure teachers, ratios, and group size support quality.
- Provide for quality interactions between teachers/parents and whānau and children.
- Establish and reflect on quality practices in teaching and learning.

### To improve collaborative relationships

- Improve the development and educational achievement of children between birth and age eight through forming strong links between ECE services, parent support and development, schools, health and social services.

Implementation of the strategic plan was supported by reviews of regulation and funding, research, and involvement of the sector in ongoing policy development and implementation.

Specific actions to support implementation of the strategic plan were decided in 2002 and amended or developed as the plan progressed. The main strategic plan actions are outlined in Appendix A.

The strategic plan included “longitudinal research [to] measure the progress of implementation against the three goals as the plan unfolds” (Ministry of Education, 2002, p.3). The wider MOE evaluation includes development of a monitoring system designed to provide indicators of progress and identify emerging problems; analysis of the annual information it receives from ECE centres; and targeted evaluations that both contribute to the overall evaluative picture and inform decisions about individual initiatives.

This report from the University of Waikato is an integrated report of a locality-based longitudinal evaluation undertaken in 2004, 2006 and 2009. It was one part of MOE's wider evaluation of the ECE strategic plan. Stage 1 of this evaluation was carried out by the New Zealand Council for Educational Research (NZCER) and Te Kōhanga Reo National Trust (TKRNT) in 2004 and 2006 (Mitchell & Hodgen, 2008; Mitchell, et al., 2008). It measured progress on the ECE strategic plan goals for 46 ECE services of different service types (education and care, kōhanga reo, kindergarten, playcentre, Pasifika, home-based, puna and playgroup) in each of eight localities. In the Stage 2 evaluation in 2009, Te Kōhanga Reo National Trust decided not to participate. The original sample was reduced by all eight kōhanga reo and the puna, and by three Pasifika services, a home-based service, and playgroup<sup>3</sup>. Reasons for the loss of these services in Stage 2 are discussed in Chapter 2, Methodology.

This report integrates the findings for the 32 services that took part in both stages of the evaluation. As well as measuring progress on the ECE strategic plan goals, the evaluation was intended to provide insight into how the three goals have been met, such as the actions services take in response to the new resources coming from the strategic plan that enable improved participation and quality, and the factors that influenced these actions.

The MOE has commissioned other evaluations of specific initiatives or changes to funding eg, of the initial uses and impact of Equity Funding (Mitchell, Royal Tangaere, Mara, & Wylie, 2006a) and the ECE centre-based Parent Support and Development programme (Bellett, Sankar, & Teague, 2010) and an analysis of the financial sustainability of services, linked to and using some data from this study (King, 2008). Research projects were also commissioned where MOE required information to support policy development, eg, a study of parental decision-making in relation to the use of ECE services (Robertson, 2007), and research on quality in parent/whānau-led services (Mitchell, Royal Tangaere, Mara, & Wylie, 2006b, 2006c; Mitchell, Royal Tangaere, & Whitford, 2006).

## Strategic plan implementation 2004–2009

The main strategic plan actions in relation to our data collection are set out in the timeline below.

Baseline data were collected after some strategic plan actions had been initiated, but these were in their early stages. New actions occurred in 2005. They included publication of MOE assessment resources and Information Communication Technology (ICT) resources and accompanying professional development. Centres of Innovation (COIs) were sharing their innovative practice with others in the ECE sector. Large funding increases were made and a new funding system based on cost drivers was established. The Promoting Participation Project was extended. The income eligibility threshold for the Childcare Subsidy was expanded in 2004. This enabled around 70% of families to potentially qualify, based on family income, up from less than half the families before the expansion of income criteria. Any changes made in ECE services in response to these actions might start to be seen in the 2006 data collection and report for the Stage 1 evaluation.

The Stage 2 evaluation was undertaken in 2009 after these policies had been in place for some time. *20 Hours Free ECE* was implemented for three- and four-year-olds in teacher-led services from 1 July 2007<sup>4</sup>. It was intended to keep costs for parents low and thereby increase participation. Under the current Government it was renamed *20 hours ECE*.

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<sup>3</sup> Readers will need to go back to the Stage 1 evaluation reports if they wish to read findings in relation to these services. since the integrated report only discusses findings for services that took part in all three data collection points.

<sup>4</sup> See Appendix A for more details of these initiatives.



**Table 1: Timeline of main ECE strategic plan actions and evaluation data**

Strategic Plan actions	2002	2003	2004	2005	2006	2007	2008	2009
Increase participation	Promoting Participation Projects (PPP) – 4 pilot projects – focus on Māori and Pasifika ECE Design and Build Scheme published Land on school sites for ECE services MOE network analysis and planning		PPP contracting reviewed	PPP extended to other groups with low ECE participation				
Improve quality	All new 'persons responsible' to hold Dip Tchg (ECE)  1 July – pay parity for kindergarten teachers	First 6 designated Centres of Innovation (COI)	1 January – all 'persons responsible' to be registered teachers  4 new designated COIs	ICT for ECE framework Books 1-9 Assessment exemplars 6 new designated COIs	Professional development on ICT and assessment November – self-review guidelines for ECE	31 December – 50% of regulated staff in teacher-led services to be registered teachers  Books 10-16 assessment exemplars published  3 new designated COIs		Books 17–20 assessment exemplars published Funding for assessment exemplars removed, COIs ended, professional development funding halted, ICT pilot programme ended
Promote collaborative relationships					8 pilot ECE centre-based parent support and development projects	10 ECE centre-based parent support and development projects		
Supporting strategies	March – Equity Funding for community-based services		Childcare subsidy increased and income eligibility threshold expanded	1 April – new funding system based on cost drivers. Substantial bulk funding increases. Evaluation of initial uses and impact of Equity Funding Research on quality in parent/whānau-led services	1 July – funding rates increased for inflation; Additional funding increases to playcentre Regulatory review on ratios and group size	1 July – up to 20 hours free ECE for 3- and 4-year-olds in teacher-led services and some kōhanga reo Evaluation of Promoting ECE Participation Project Research on parental decision-making in relation to ECE services	Free ECE renamed 20 hours ECE	
Evaluation data collection			August 2004 – March 2005 Baseline data collected for Stage 1 of the Evaluation		May – November 2006 Evaluation data collected for Stage 1 of the Evaluation			May – November 2009. Evaluation data collected for Stage 2 of the Evaluation

Some policies had been announced just before data was collected for the Stage 2 evaluation. These would have been too early to have had much, if any, impact on the ECE services in the study, although some participants commented on them. *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars. Books 17–20* assessment exemplars were published. The May 2009 Government Budget announced that *20 hours ECE* would be extended to five-year-olds and children attending playcentres and *kōhanga reo* in July 2010 (after data was collected for this study). This Government Budget ended funding for professional development for implementation of the assessment exemplars, COIs, and the ICT pilot programme.

## Locality-based evaluation

One of the major factors that could influence the actions people take, and how the strategic plan actually unfolds for children, parents, teachers/educators, and managers, is the locality in which families live, work and use ECE. It was for this reason that MOE decided to call for tenders to undertake an evaluation of the impact of the strategic plan that would pay attention to differences in local context and shed some light on what these differences might mean.

NZCER and TKRNT, together with Health Outcomes International, which focused on service financial sustainability, undertook the first stage of this locality-based evaluation. The Stage 1 report (Mitchell & Hodgen, 2008) explains the steps in the evaluation.

Stage 1 started with several meetings in late 2003, where the evaluation team and MOE ECE policy-makers, researchers, and data analysts discussed the intervention logic model<sup>5</sup> that had been developed for MOE to show the likely paths between the goals of the strategic plan, the strategies and actions to support those goals, the intermediate outcomes that would occur along the way and the outcomes at the end of the ten-year period. The final version of this model is given at the end of this introduction. The model framed the information required from data collection, particularly in relation to the intermediate outcomes.

Also discussed were the kinds of changes that were likely to occur as a result of the strategic plan within the initial years that this evaluation covers, the factors within, and outside, the strategic plan that were likely to influence outcomes, and risks that could affect the achievement of the outcomes. For example, some of the factors within the strategic plan policy that were expected to affect increasing participation of Māori children were teacher skills and supply, supply of services Māori parents wanted, and alignment of policy. Factors outside it included labour market factors, housing, income support and social development policy, the degree and quality of parent/whānau engagement in ECE, and children's health. Risks included services not being accessible or affordable. This analysis also mapped out the information that should be gathered through the evaluation.

The University of Waikato, with the same principal researcher<sup>6</sup> and team of field researchers, was selected to undertake the second stage of the evaluation after major policy actions had been in place for some time. Unfortunately, TKRNT decided not to participate in the Stage 2 evaluation and *kōhanga reo* and the *puna* were not included in the Stage 2 sample.

The most important aspect of the evaluation was to compare how things were in mid-2004 before the major policy changes began, how things were in the same ECE services in 2006, after some actions had been taken, and how things

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<sup>5</sup> The intervention logic model was developed by Patricia Rogers, RMIT University, Melbourne, from documentation and discussions with the long-term strategic plan working group, and MOE policy and research staff. In essence, an intervention model shows how something is expected to work and allows people to test their assumptions and clarify understanding both in the policy development stage and as a policy unfolds. It is a living model, rather than an inflexible test of whether something is 'correct'.

<sup>6</sup> Linda Mitchell, the principal researcher, was employed at the New Zealand Council for Educational Research during the Stage 1 evaluation. She was employed by the University of Waikato at the time of the Stage 2 evaluation.

were in 2009. This comparison enabled the evaluators to map the changes that occurred in services and for parents between 2004, 2006 and 2009. It provided some insight into how change occurred and whether it was heading as expected by the intervention logic model that underpins *Pathways to the Future: Ngā Huarahi Arātāki*. Because it is important to understand how change occurs (or does not), this study focused on a sample of individual services, so that the evaluators could both track things over time and gather contextual information. This study was not intended to provide a representative picture of all ECE services. That can be provided by analysis of the national data collected by MOE and by periodic national surveys, such as the 2003/2004 and 2007 NZCER surveys of ECE services<sup>7</sup>.

NZCER and TKRNT began by collecting data in 46 services in eight localities in 2004 (Mitchell, et al., 2008). The evaluation team returned to these services in 2006, collecting data that made it possible to see what changes had occurred in the services and for parents using these services.

In 2009, the sample was reduced to 32. The eight *kōhanga reo*, *puna*, three Pasifika services, a playgroup and a home-based service did not take part (see Chapter 2 for a discussion of the sample). The evaluation questions in 2009 were similar to 2006, with the exception that a broad overarching question about children's early learning foundations was not asked in 2009. The 2009 questions were:

To what extent, in what ways and how effectively has:

- the plan increased participation in ECE
- the plan improved the quality of ECE
- the plan facilitated the formation of collaborative relationships between ECE services, parent support and development, schools, health and social services
- participation in ECE supported parents' ability to engage in work and training?

These four questions frame the report.

## Layout of report

To answer the evaluation questions, the discussions around the intervention logic model and reference to research-based evidence were used to develop a set of indicators and rubrics around each of the plan's three major goals and the intermediate outcomes that were the target of government actions and that were expected by the logic model to contribute to the goals. For each set of indicators, we analysed levels and patterns of change in ratings where we had data for 2004, 2006 and 2009. We then provided some analysis of the factors that may have made a difference in relation to the achievement of the strategic plan's outcomes.

Service characteristics may affect changes that occur in relation to the strategic plan. We have compared services in relation to their type; whether they are teacher-led or parent/*whānau*-led; and whether they are sessional or full day.

We have also compared changes for services in relation to child characteristics, such as the proportion of under-twos on their roll. We also compared changes in terms of the social characteristics of their roll: the proportion of Māori, the proportion of Pasifika, and whether they receive Equity Funding (indicating low socioeconomic status, isolation or teaching in a language other than English).

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<sup>7</sup> The first NZCER national survey was carried out in late 2003 (Mitchell & Brooking, 2007) and the second in 2007 (Mitchell, 2008a, 2008b). It surveyed management, teachers/educators, parents and parent committee members from 531 ECE services. This sample was approximately 15 % of all service types, except *kōhanga reo*. Thus—with the exception of *kōhanga reo* – the survey provides a generally representative picture.

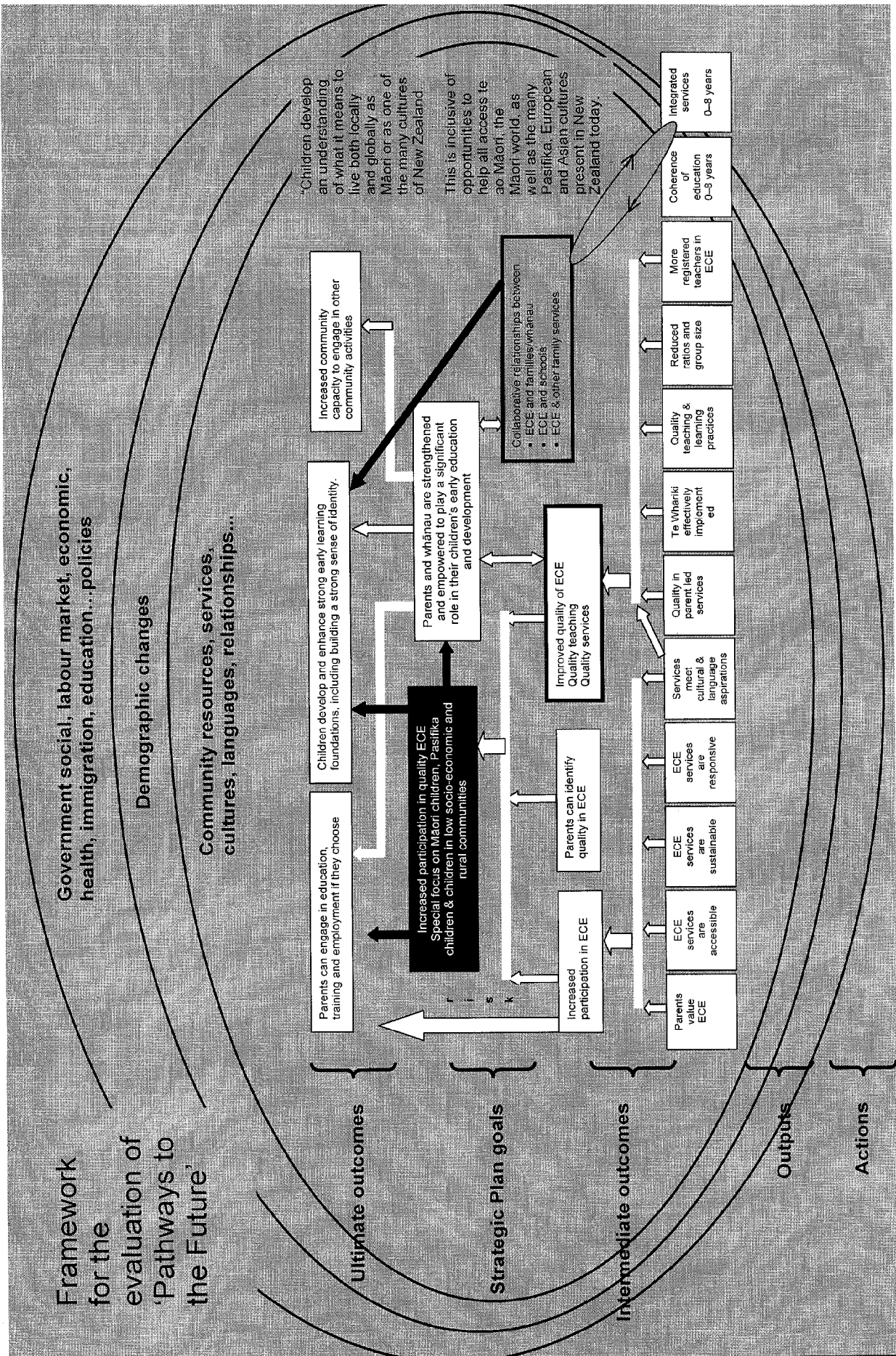
We surveyed parents at each of the 32 services in the study, a total of 690 in 2004, 628 in 2006 and 595 in 2009 in the three phases of the study. This is a sizeable cross-section of ECE users and provides useful information not just about these particular services in relation to the strategic plan goals but also about patterns of children's participation in ECE.

The report starts with an outline of the methodology used. Chapters 3 to 6 address the evaluation questions. Chapter 3 focuses on increasing participation, Chapter 4 on improving the quality of education, Chapter 5 on enhancing collaborative relationships and Chapter 6 on ECE in relation to parent engagement in work and training.

In each of these chapters, the format is the same. Dimensions of the strategic plan goal are described, followed by analysis of 2009 levels on these dimensions and patterns of change (where data for 2004, 2006 and 2009 are available) for localities, services and children, analysis by intermediate outcomes of the strategic plan and of drivers and impediments to change. A final section for each summarises the evidence in relation to the evaluation question.

In the final chapter, we provide a concluding discussion on the impact of the strategic plan in the study localities and nationally.

Figure 1: Framework for the evaluation of 'Pathways to the Future'





## 2. Methodology

### Purpose of the evaluation

The purpose of the evaluation of the strategic plan was to report on whether the three goals of the strategic plan have been achieved. It was intended to improve MOE's understanding of how particular aspects of the plan have worked and support future planning and decision making. As noted previously, the evaluation was undertaken in two stages, with Stage 2 building on the methodology and approach used in the Stage 1 evaluation (Mitchell & Hodgen, 2008).

Four evaluation questions relating to the plan's outcomes were asked. To what extent, in what ways and how effectively has:

1. the plan increased participation in ECE
2. the plan improved the quality of ECE
3. the plan facilitated the formation of collaborative relationships between ECE services, parent support and development, schools, health and social services
4. participation in ECE supported parents' ability to engage in work and training?

### Evaluation design

The evaluation design and its limitations were discussed in the Stage 1 report (Mitchell & Hodgen, 2008). The design had to provide ways to gather meaningful information relevant to the strategic plan goals and outcomes that could be tracked over time, to see what changes were occurring in ECE services and for parents. It also needed to be able to relate any changes found to both the national level (eg, changes to funding or regulations) and the local context.

One limitation was what we could chart in terms of participation. We could track changes in regularity of attendance, number of hours and starting age but could not tell what proportion of a locality's preschoolers were accessing the ECE services in that locality, because no current information on the number of preschoolers in a given area was available. Schools provide MOE with information provided by parents about whether their new entrant child has attended ECE and the type, which gives some indication of the ECE attendance of children just before they come to school. However, it cannot show whether this ECE attendance was in the same locality or about the ECE attendance patterns of younger children. This locality-based evaluation was not intended to cover all these aspects, being only one part of MOE's overall evaluation strategy.

A second limitation in interpreting locality figures across the three years of the evaluation was that there was a noticeable change in the ward boundaries as a result of the Census 2006 update. This has implications for comparing 2009 locality data with 2006 and 2004 data since any differences may be attributable to boundary change.

Intervention logic is often used to assist with evaluating programmes with defined beginnings and endings and to map out the ways in which progress towards a defined end is expected to occur. The intervention logic model used for the *Pathways to the Future: Ngā Huarahi Arātāki* strategic plan is at a high level, relating goals to outcomes over time. These outcomes and goals were directional and were not defined in terms of quantitative targets (eg, 100 ECE attendance for all four-year-olds or 75% of all services achieving high ratings for the quality of teacher/educator:child

interaction, by 2012). Only some aspects that fell within regulations had been given clear targets, such as having all teacher/educators in teacher-led programmes registered by 2012.

Using the logic model, dimensions for each intermediate outcome and goals of the strategic plan were described and measured. Data was analysed to show levels and shifts from 2004 to 2006 to 2009. In addition, evaluative judgments ('very good', 'good', 'fair' or 'poor') were made about the level of achievement reached on the quality and collaborative relationship dimensions. Other information collected at the service and locality levels enabled an analysis of what may have contributed to any changes seen on these dimensions.

## Sample

### Localities

The eight localities (wards) for the study were chosen in Stage 1 by MOE, NZCER and TKRNT to provide diversity on key relevant variables. These were:

- geographical location, including North or South Island and different degrees of isolation
- ethnic composition, especially percentage of Māori population and percentage of Pasifika population
- demographic changes anticipated, especially projected under-five population growth or decline
- ECE service supply and demand
- range of ECE services (eg, licensed, licence-exempt, different ownership structures, different service types, different philosophies, different language and culture provision, and special character services).

All the wards chosen had median incomes below the average for New Zealand, so the sample is not representative with respect to income levels. The MOE was interested in such localities because low income families tend to have lesser rates of participation in ECE than families with higher incomes.

Electoral wards were used as a systematic way to define locality boundaries. Electoral wards are subsets of City Districts (previously Territorial Local Authorities). Boundaries are reviewed preceding local body elections. Wards are therefore already defined localities that should have coherence as communities. All the wards selected had individual incomes below the median in 2001.

While the wards provided a way to define localities that were likely to operate as communities for electoral purposes, the case study approach, focusing on reasonably comprehensive data collection from individual ECE services, meant that wards were too big to be able to include every ECE service. Census Area Unit/Units (CAUs) were used within each ward to define the geographic area for the ECE services to be followed over time. CAUs usually coincide with suburbs or parts of suburbs, thus allowing a closely defined geographical area to be intensively studied within the setting of a broader community. The following table sets out some key social characteristics of the eight localities chosen.



**Table 2: Characteristics of the 8 localities (2006\* Census data)**

Kauri	Ethnicity of population: 73.5% Māori, 6.7% Pasifika. ECE participation of new school entrants in 2009 74.4%. Median income: \$17,900. Unemployment rate: 14.3%. Locality: North Island, minor urban.
Pōhutukawa	Ethnicity of population: 21.3% Māori, 47.9% Pasifika. ECE participation of new school entrants in 2009 83.3%. Site for Promoting Participation Project. Median income: \$19,200. Unemployment rate: 9.8%. Locality: North Island, main urban.
Kōwhai	Ethnicity of population: 24.6% Māori, 20.7% Pasifika. ECE participation of new school entrants in 2009 82.5%. Site for Promoting Participation Project. Median income: \$19,900. Unemployment rate: 8%. Locality: North Island, main urban.
Karaka	Ethnicity of population: 25.1% Māori, 2.9% Pasifika. ECE participation of new school entrants in 2009 96.3%. Median income: \$21,800. Unemployment rate: 4.2%. Locality: North Island, minor urban.
Tōtara	Ethnicity of population: 34.1% Māori, 3.6% Pasifika. ECE participation of new school entrants in 2009 98.3%. Median income: \$18,600. Unemployment rate: 6.9%. Locality: North Island, minor urban.
Nīkau	Ethnicity of population: 6.4% Māori, 0.7% Pasifika. ECE participation of new school entrants in 2009 99%. Median income: \$22,100 Unemployment rate: 2.8%. Locality: South Island, main urban.
Rātā	Ethnicity of population: 10.2% Māori, 3.7% Pasifika. ECE participation of new school entrants in 2009 96.3%. Median income: \$23,900. Unemployment rate: 3.9%. Locality: South Island, main urban.
Rimu	Ethnicity of population: 6.5% Māori, 1.8% Pasifika. ECE participation of new school entrants in 2009 96.7%. Median income: \$19,200. Unemployment rate: 3.4%. Locality: South Island, secondary urban.

Median individual income for all of New Zealand was \$24,400 in 2006. Unemployment rate for all of New Zealand was 5.1% in 2006.

Main urban areas have a minimum population of 30,000 and are centred on a city or major urban area. Secondary urban areas have a population between 10,000 and 29,999 and are centred on the larger regional areas. Minor urban areas are urbanised settlements (outside main and secondary urban areas) centred around smaller towns with a population of 1,000 to 9,999. Rural centres have a population of 300 to 999. MOE and NZCER chose main urban, secondary urban and minor urban areas because rural areas did not have a range of ECE service types. Nevertheless, the minor urban areas in our sample each had some isolated services.

### Sample services

Overall, in 2004 the services in this study comprised 20% of the services in the wards that were used to define the localities. This varied from 63% of services in one rural ward, to 10% in an urban ward. There were 245 licensed services in the eight study wards in 2004, 251 in 2006 and 286 in 2009.

The sample was not chosen to provide a representative sample of either services in a ward or enrolments in a ward. One of each major ECE service type in each locality was included where possible. The ward data were used as context to help interpret changes in the sample services.

Forty-six services participated in the Stage 1 evaluation. These were 12 education and care centres (seven private and five community-owned), eight kindergartens, eight playcentres, eight kōhanga reo, five Pasifika services, three home-based services, one puna and one playgroup.

In Stage 2, TKRNT decided not to participate in the evaluation and as a result the eight kōhanga reo and one puna in the Stage 1 sample did not participate in the Stage 2 evaluation. In discussion with MOE we also decided not to include a playgroup because it had very low attendance, opened on only one day of the week and we were limited in what we could say about it. A Pasifika service had closed in 2006 and been sold to a private corporate provider.

The remaining 35 ECE services were approached by the University of Waikato evaluators by letter and telephone. All but two Pasifika services and one home-based service approached in this way agreed to take part.

In total, 32 ECE services participated in both the Stage 1 and Stage 2 evaluation – 12 education and care centres (seven private and five community-owned), eight kindergartens, eight playcentres, two Pasifika services and two home-based services. One of the education and care centres serves children with special education needs drawn from a wide area.

This small sample was not intended to be representative of all ECE services or parents of children attending ECE but to provide understanding of the changes occurring in ECE.

## Data collection in the localities

There were two data collection periods in the Stage 1 evaluation – August to November 2004 and May to November 2006.

Stage 2 data collection began in August and was completed in October 2009.

### Training of field researchers

In 2004, NZCER and TKRNT field researchers shared two days training about the purpose and background of the evaluation, interviewing and the interview schedules, and the use of the service quality rating scale (for those unfamiliar with it). All four NZCER field researchers had used the rating scale recently, as had the TKRNT project leader. The two TRKNT field researchers who had not used the rating scale rated the same service as the TKRNT project leader,

afterwards comparing and discussing ratings, to ensure there was a consistent understanding of the items and their marking.

In 2006, the fieldwork team consisted of the same four NZCER field researchers and the TKRNT project leader. They shared a day's meeting to discuss the data to be collected in this second phase.

In 2009, the University of Waikato evaluation team shared two days training about the purpose and background of the evaluation, interviewing and the interview schedules, and the use of the service quality rating scale. The evaluation team members were the same people who had done the field work in Stage 1 and were experienced in use of the instruments.

In each year of data collection the field researchers visited each service on two occasions. These occasions were mostly a week or more apart but sometimes two in the same week (not consecutive days).

### Service data sources

For each service, the field researchers:

- rated the ECE service on process quality and collected information on actual teacher/educator:child ratios and group size, on two occasions
- obtained a service profile of the operation of the ECE service (filled in by service managers)
- gathered information about operation and pedagogical practice from the service management
- obtained questionnaire responses from the parent management committee/whānau or management
- surveyed parents/whānau in the ECE service
- held a group interview with teachers/educators.

ECE service management or staff were asked to distribute the parent/whānau survey and information about the evaluation at the field researcher's first visit. The field researcher also talked informally to parents/whānau as they picked up their children, and encouraged responses. Completed surveys were collected on their second visit to the ECE service or posted to the evaluators.

Written surveys were not feasible to use with parents attending one service that caters for refugee families. We worked with the supervisor of this service to turn the survey into a set of 10 questions that were asked of parents as a group, in each year of the evaluation. Two group sessions, each lasting several hours, were held at the service, with bilingual staff attending each. The groups were facilitated by the adult programme leader at the service, and notes provided by the staff. This turned out to be a very useful process for the service itself. In 2006 the manager wrote:

*"I think this experience has been great for all of us. Families certainly enjoyed being consulted, and said so. Feedback was given with respect and humour. I have never had so much feedback ever from families involved in early childhood centres. We would certainly repeat this exercise again."* (ECE service manager).

The mix of methods used in the evaluation is intended to provide comprehensive information, including service and parent perspectives that relate directly to the strategic plan's goals and outcomes, including services' expectations and planned actions, and to also provide contextual information to help understanding of any differences across localities and services.

### *ECE service quality rating scale*

Ratings of process quality were used to make evaluative judgments about the level of quality in each evaluation year.

Service-level data on the quality of ECE service provision came from field researcher observation-based ratings, using a structured measure of aspects of process quality. Process quality is described as “those aspects of an early childhood education program which children actually experience” (Smith et al., 2000). It refers to the environment and the interactions and relationships that occur in an early childhood education setting and shape children’s experiences. The measure of dimensions of ECE quality, the NZCER/TKRNT process quality rating scale, included items that have been identified as making a long-term contribution to positive outcomes for children (Siraj-Blatchford et al., 2003; Wylie & Hodgen, 2007; Wylie, Hodgen, Ferral, & Thompson, 2006; Wylie & Thompson, 2003; Wylie, Thompson, & Kerslake Hendricks, 1996).

The process quality rating scale adapted for this evaluation was first developed in the longitudinal *Competent Children, Competent Learners* project. It was further developed by NZCER/TKRNT for their evaluation of Equity Funding (comparing baseline ratings with ratings of the same services a year later) and their study of Quality in Parent/Whānau-led Centres (analysing factors that were associated with different quality rating levels). It has also been used as a source of data to decide and assess cycles of action research/professional development in the Wilton Playcentre Centre of Innovation work and in a one-year action research project on early literacy in an aoga amata (Pasifika ECE).

Thirty items from the scale were used for this evaluation. These are briefly outlined in Appendix B. Use of this scale enabled the measurement of change over time for particular aspects, as well as overall.

The instruments used in this evaluation are available from the University of Waikato on request.

## **Analytic framework**

The framework we used to analyse change between 2004, 2006 and 2009 was developed and discussed with MOE officials before being finalised. The MOE and the evaluation team needed to have criteria for defining what ‘good’ looked like in order to answer the evaluative questions.

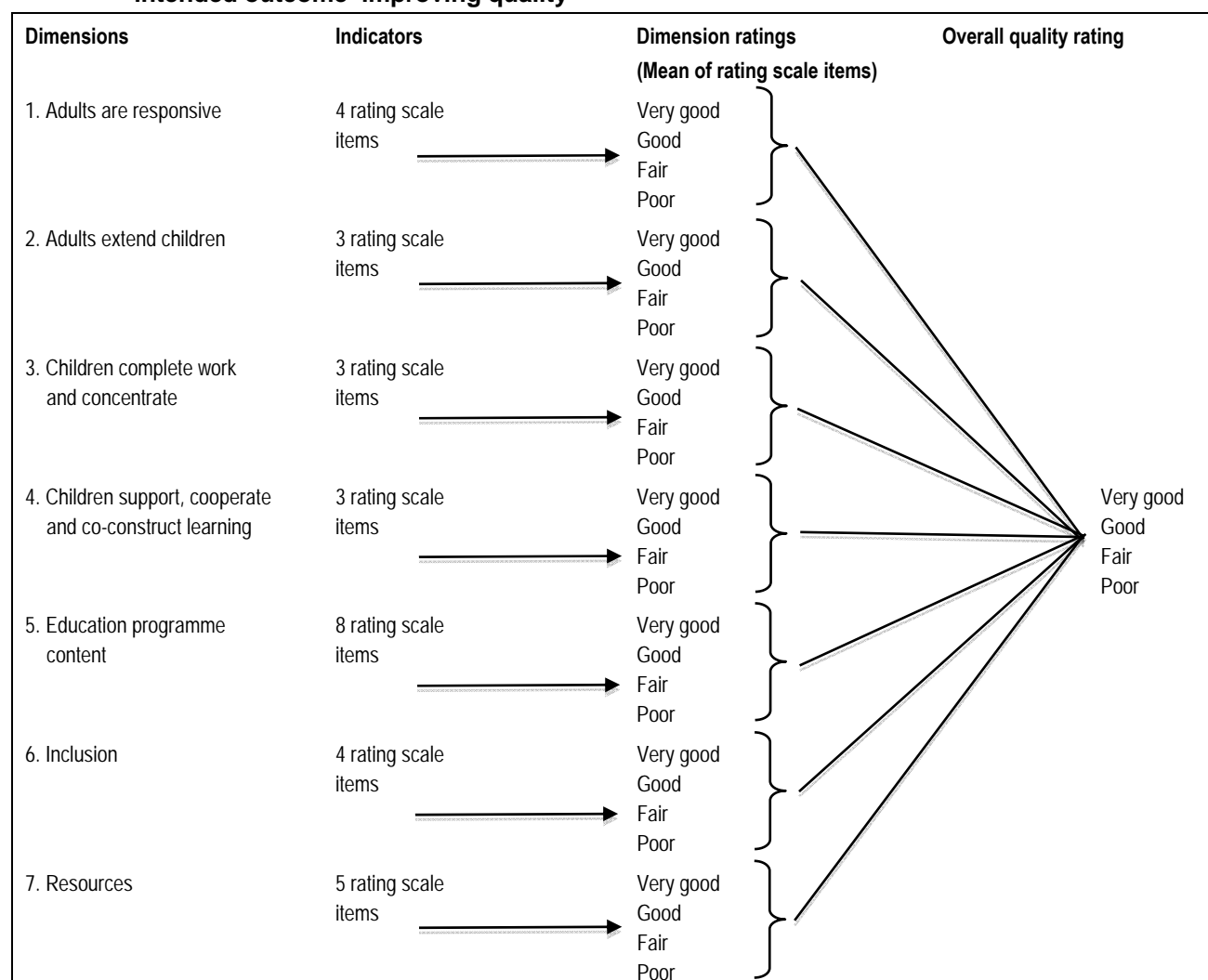
For each intended ECE strategic plan outcome we followed similar steps to establish dimensions for each outcome and make evaluative judgments about levels reached on them.

1. We described dimensions for each intended outcome. These dimensions had either been associated in research evidence with benefits for children or were based on the strategic plan goals. For example, three dimensions of participation were established: levels (percentage enrolled), duration (months of attendance and starting age), and intensity of participation (hours of participation).
2. We described indicators for each dimension that show how we measured that dimension. For example, the indicator of levels of participation was a rating derived from the proportion of children enrolled in ECE prior to school entry in each locality. The indicators of levels of quality were ratings on seven aspects of quality: ‘Adults are responsive’; ‘Adults extend children’; ‘Children complete work and concentrate’; ‘Children support, cooperate, and co-construct learning’; ‘Education programme content’; ‘Inclusion’ and ‘Resources’.
3. We developed rubrics for the quality and collaborative relationship dimensions, which describe three levels of overall achievement for each indicator, rated as ‘good’, ‘adequate’, or ‘poor’. The rubrics were decided through reference to research evidence, government policy goals or baseline findings. They were finalised after review and discussion with the MOE. The rubrics were given a numerical rating (maximum 3, minimum 1). Their importance

was weighted (maximum 3, minimum 1). To get the indicator score, the weighted mean of the ratings for each item was calculated. The weighted mean = (total of each rating x its weight)/(total weights).

4. Where there was more than one indicator for each dimension, we combined the indicator scores to reach a dimension score and used a scale of ‘very good’, ‘good’, ‘fair’, or ‘poor’ to describe the dimension rating. The mean was used to rate the dimension: ‘Very good’: 2.5–3; ‘Good’: 2.2–2.49; ‘Fair’: 1.7–2.1; ‘Poor’: 1–1.6. Where there was only one indicator of a dimension, the indicator score was the dimension score. We describe the importance of each dimension (‘very important’, ‘important’, and ‘desirable’) with reference to research evidence where available.
5. Where appropriate, the dimension scores were then combined, to provide an overall judgment of the level of achievement on each intended outcome. This overall judgment was categorised as ‘very good’, ‘good’, ‘fair’, or ‘poor’.
6. Each service was given a rating for each quality and collaborative relationship indicator, dimension, and overall outcome. These were used to make evaluative judgments about 2009 levels and shifts in levels from 2004 to 2006 to 2009.

**Figure 2: Relationships between dimensions, indicators, dimension ratings and outcome rating for intended outcome ‘improving quality’**



As part of the evaluation we did develop rubrics for participation dimensions but decided there were good reasons not to use them. Unlike the data for quality dimensions, where research evidence about benefits of dimensions of quality is clear, it is hard to make evaluative judgments about levels of participation. This is because participation benefits depend on whether the service is of good quality, the educational aims of the service (eg, language learning may require more hours of exposure), and family circumstances. In addition, we as a society do not have agreement about what might be good for young children in terms of levels of participation in ECE and MOE has not suggested desirable targets for participation dimensions. Thus, rather than using evaluative terms to describe levels on participation dimensions, we have detailed data for the dimensions to show levels and shifts from 2004 to 2006 to 2009.

Appendix C describes the rubrics developed for the quality and collaborative relationships outcomes.

Data MOE provided for localities are examined separately from data relating to the services followed over time, with the proviso that boundary shifts relating to Census 2006 have implications for comparisons. At service level, data from parents about their children are combined with data from teachers/educators and managers for the service of those children.

## Analysis

### A) *Levels in ratings*

For each indicator, dimension, and overall outcome we analysed levels of ratings in 2009.

### B) *Patterns of change 2004 to 2006 to 2009.*

For each indicator, dimension, and overall outcome we analysed levels and patterns of change in ratings from 2004 to 2006 to 2009 where we had data from all years.

### C) *Analysis of change in ratings for services and children*

To address the question ‘For whom’ has the plan resulted in increased/decreased/no change in indicator, dimension, and overall ratings, we analysed patterns of change from 2004 to 2006 to 2009 for services and groups that were the focus of strategic plan actions and goals. Analysis was made separately of data gathered at locality level and data gathered at service level.

#### i) *Service characteristics*

Change in indicator, dimension, and overall ratings for data collected at service level (but not locality level) was analysed in relation to the following characteristics of services:

- service type
- service is teacher-led or parent/whānau-led
- service is sessional or full-day.

#### ii) *Child characteristics*

Change in indicator, dimension, and overall ratings for data collected at service level (but not locality level) was analysed in relation to the following characteristics of children in that service:

- proportion of children attending the service who are Māori. The cut-off point was over 12% Māori, chosen because it provided a mid-point (half the services had more than 12% Māori children)

- proportion of children attending the service who are Pasifika. There were only 19 services with any Pasifika children and five of these had only one or two Pasifika children. We chose a cut-off point of 20% to sample services with several or more Pasifika children
- whether the service receives Equity Funding, ie, whether the service serves low-income families, delivers the education programme in a language and culture other than English, and/or whether it is isolated
- proportion of children enrolled at the service under two years old. The cut-off point was more than 20% under two year olds.

Parental data about their child was analysed in relation to income level and employment status of parents filling in the questionnaire, and ethnicity of the child.

#### *D) Analysis by intermediate outcomes*

Intermediate outcomes were also given ratings in their own right. At service level, we provided a second level of analysis through comparison of changes in ratings of indicators, dimensions, and overall outcome ratings with changes in indicator ratings of the following intermediate outcomes:

- *Participation*. ECE services are accessible; ECE services are sustainable; ECE services are responsive; ECE services meet cultural and language aspirations
- *Quality*. ECE services meet cultural and language aspirations; more registered teachers in ECE; quality in parent/whānau-led services; reduced ratios and group sizes; *Te Whāriki* effectively implemented; quality teaching and learning practices.

#### Analysing supports and barriers to change

We analysed the ratings of 2009 levels and patterns of change in ratings from 2004 to 2006 to 2009 in relation to data from interviews with teacher/educators, parent questionnaires, and management questionnaires about supports and barriers to improvements on the dimensions. This helped us address questions of how improvements/no improvements had come about at service level.

We analysed patterns of change or of no change in each overall rating in relation to MOE actions, service actions and any other relevant changes for the service or locality.

#### Addressing the evaluation questions

We synthesised these analyses to address each evaluation question.





### 3. Increasing participation

Attending a good quality early childhood education service contributes to children's learning, development and well-being and plays a role in supporting families. These were reasons for the ECE strategic plan focus on increasing participation in good quality ECE. In New Zealand, the *Competent Children, Competent Learners* study (Wylie & Hodgen, 2007; Wylie et al., 2006; Wylie & Thompson, 2003; Wylie et al., 1996) found that children who attended good quality ECE had higher scores on a range of competencies during schooling than those attending poorer quality ECE services.

Studies in the US and UK (Bridges, Fuller, Rumberger, & Tran, 2004; Gormley & Phillips, 2003; Magnuson, Ruhm, & Waldfogel, 2004; Sylva, Melhuish, Sammons, Siraj-Blatchford, & Taggart, 2004, 2010) that compare the performance of children with and without ECE experience, show benefits during schooling for those with ECE experience. A key finding of the large-scale longitudinal *Effective Provision of Preschool and Primary Education* (EPPE) study in the UK (Sylva et al., 2004, 2010) was that "Preschool experience compared to none, enhances all-round development in children" even after controlling for other factors like maternal education and socio-economic status (Sammons, 2010, p. 94). These beneficial effects persisted through primary schooling to the end of Key Stage 1 (Year 2, age seven years), although the positive difference made to some outcomes at primary school entry may be less marked by age seven. The effects were mediated by the quality of the ECE service and primary school and influences at home. The most positive gains for children came from attending a very good quality ECE service and an academically effective primary school.

A range of government initiatives in Aotearoa New Zealand have been aimed at increasing ECE participation. Some initiatives are targeted to communities where ECE participation is low. Others are universal funding initiatives expected to make ECE more affordable and hence more accessible for all families.

MOE Promoting Participation Projects were established as pilot projects in 2002, initially for Māori and Pasifika families. The targeting was extended to families with low ECE participation in 2005.

From 2002, MOE has offered advice and support for new services or to help (existing) services meet community need; provided space on new school sites for ECE services; and undertaken ECE network analysis and planning.

Funding levels have increased under strategic plan initiatives:

- In 2004, the Childcare Subsidy, targeted at families meeting low-income and other criteria, was increased and the income eligibility threshold expanded.
- A new funding system and funding rates for all licensed ECE services was implemented from 1 April 2005. This funding system was based on ECE service cost drivers, and links to the ages of children, whether the service is sessional or all-day, and the percentage of registered teachers meeting regulated requirements in teacher-led services. Teacher-led services could access higher rates of funding if they had a higher than regulated percentage of registered teachers. When data was collected for this study, the funding bands were 100% registered teachers, 80–99% registered teachers, 50–79% registered teachers, 25–49% registered teachers, 0–24% registered teachers.<sup>8</sup> Higher funding rates were provided for services offering *20 hours ECE*.

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<sup>8</sup> Beyond the date in which data was collected for this study, the following policy changes were made. In October 2009, the strategic plan target for employment of 80 % registered teachers in teacher-led centre-based services by the year 2010 was extended to 2012. The target for 100 % registered teachers by the year 2012 was removed. The Government's May Budget 2010 announced funding levels for ECE services employing 80 % or more registered teachers would be reduced from 1 February 2011.

Free ECE is regarded as a lever to increase participation and was implemented for three- and four-year-olds in teacher-led services from 1 July 2007.<sup>9</sup> Under the current Government it was renamed *20 hours ECE*. It was extended to playcentres and kōhanga reo in July 2010, after data was collected for this study.

We would expect to see some changes in indicators of participation from the current users of the sample ECE services from the universal funding initiatives, as well as for any services affected by local ECE participation initiatives. The funding initiatives shed some light on how policy changes affect costs to parents and whether cost influences parents' decisions about extending hours of their child's attendance, changing services or starting ECE. They also allow opportunity to examine how individual services respond to funding incentives.

MOE statistics on enrolments and participation prior to school entry can show national shifts from 2004 to 2006 to 2009 since their data are collected from all licensed ECE services and families of school entrants. This data would be expected to incorporate any family whose child had come into ECE because of participation initiatives.

The Stage 1 evaluation report (Mitchell & Hodgen, 2008) explained the indicators of participation that were developed and the data sources used to measure them. We update this explanation. We then use MOE national and ward-level data and data obtained from the 32 ECE services in the study to analyse changes from 2004 to 2006 to 2009. Service-level data gathered in this study provide information that is not collected by MOE, including management, parent and teacher views of ECE provision, needs of families, and information about children's ages of entry into ECE and duration of attendance. Our picture of participation patterns and change is not intended to be representative but by putting different data together, we can see what might account for patterns and shifts and therefore how MOE initiatives can contribute.

### **The evaluation question**

*To what extent, in what ways, and how effectively has the plan increased participation in ECE?*

The intervention logic model identified an overall participation outcome, 'Increased participation in ECE services', and five intermediate outcomes, 'Parents value ECE', 'ECE services are accessible', 'ECE services are sustainable', 'ECE services are responsive', and 'ECE services meet cultural and language aspirations' that were intended to contribute to the outcome 'Increased participation in ECE'. Indicators for each of these outcomes were developed, except for 'Parents value ECE' (which was not measured since our sample was of current users only). We report on shifts in relation to these indicators from 2004 to 2006 to 2009.

Service-level data used information from parents about their own child's participation, and parent views about service accessibility, opening times, and satisfaction; information from management about service sustainability, field researcher observations, and information from teachers about Māori language and culture. In the 2004 and 2006 analysis (Mitchell & Hodgen, 2008), the eight kōhanga reo, the three Pasifika services, the one home-based service and the puna and playgroup that did not participate in Stage 2 of the evaluation were included. In this current analysis, we exclude these to compare data from the same 32 services that remained in the sample in each of the years 2004, 2006 and 2009.

The number of services with in-depth data in the three years varied for each dimension and indicator from 30 to 32. For example, only 30 of 32 managers responded to questions about changes to financial sustainability because others did not feel able to respond to these questions or did not want to divulge financial information. We report on shifts for

<sup>9</sup> See Appendix A for more details of these initiatives.

services for which we held complete data. The number of parents from the 32 services who responded was 690 in 2004, 628 in 2006 and 595 in 2009.

**Table 3: Service-level data sources in 2004, 2006 and 2009**

<b>Dimension</b>	<b>Indicators</b>
Duration of participation	<b>Starting age:</b> Age child started ECE. (Parent questionnaire) <b>Duration in months:</b> Number of months child in ECE by age. (Parent questionnaire)
Intensity of participation	<b>Hours of attendance:</b> Average hours of attendance per week (Parent questionnaire)
Regularity of attendance	<b>Regularity of attendance in last month:</b> Parent responses. (2006 and 2009 only – Parent questionnaire)
<b>Intermediate outcome</b>	<b>Indicators</b>
ECE services are accessible	<b>Provision of services meets demand</b> Parent responses to “Whether times (days, weeks) child attends suits parent” (Parent questionnaire) Parent ratings of how well service meets needs of close to work/and close to home, hours (Parent questionnaire) <b>Supply</b> Percent parents on waiting list for other service (Parent questionnaire) Parent responses to “Whether choice of service meets parent needs.” (Parent questionnaire) <b>Affordability</b> Parent views of affordability. (Parent questionnaire)
ECE services are sustainable	<b>Enrolments</b> Spare places (Management questionnaire) Proportion of children who stay until they go to school (Management questionnaire) <b>Staffing</b> Whether service has enough teachers to meet requirements, whether service predicts problems in meeting staffing requirements in future, whether qualified teachers are used to cover for absences (Management questions on teacher supply – rating of difficulties) <b>Financial</b> Management questions on whether service is financially stable (Management questionnaire)
ECE services are responsive	<b>Provision of services meets needs of families</b> Rating of overall satisfaction (Parent questionnaire) Rating of how well service meets parents’ aspirations in relation to ECE programme, staffing, and environment (Parent questionnaire)
ECE services meet cultural and language aspirations (2009)	<b>Parents’ cultural and language aspirations are met</b> Parents’ rating of how well service meets cultural aspirations (Parent questionnaire) Parents’ language and culture included in ECE curriculum, parents contribute (Parent questionnaire) Rating of teacher explanation of how the service meets parents’ and whānau language and cultural aspirations (Teacher questionnaire) Rating of monitoring and evaluation of service provisions for parents/families of diverse ethnic backgrounds (Management questionnaire) <b>Tikanga Māori and te reo Māori are evident within the education programme</b> Rating scale item for tikanga Māori and te reo Māori (Field observations) Rating scale item for responsiveness to different cultures and heritages of children (Field observations) Rating scale item for inclusiveness of setting (Field observations)

## Participation – national picture

The source of data used for this national picture was obtained from [www.educationcounts.govt.nz/indicators/student\\_participation/early\\_childhood\\_education/1931](http://www.educationcounts.govt.nz/indicators/student_participation/early_childhood_education/1931). This indicator of prior participation changed in 2010 “from school roll returns to ENROL, which is an electronic real-time enrolment system used by schools and likely to provide more accurate data for this measure”.

Nationally, ECE participation prior to school entry increased from 92.9% in 2004, to 93.4% in 2006 to 93.9 % in 2009.

European/Pākehā new entrants had the highest rate of prior participation in early childhood education. In 2009, 98.5% of European/Pākehā children attended an ECE service prior to starting school, compared with 95.6% for Asian children and 91.4% for Māori. Pasifika new entrants had the lowest prior participation rates in ECE services (85.4%).

The number of ECE enrolments in licensed ECE services was approximately the same in 2004 (163,085) and 2006 (165,254) and rose in 2009 (180,910). Calculating enrolments as a proportion of an estimate of the population of each age group, MOE showed a 6% increase from 2004 to 2009, and 1.6% growth since 2007. Most of the increase was for children under two.

Note, however, that there are some difficulties in making accurate calculations of ECE enrolments. Since the figures come from individual ECE services, children attending more than one ECE service are counted more than once, a reason why enrolment rates of more than 100% are possible. Several studies (Department of Labour and National Advisory Council on the Employment of Women, 1999; Mitchell, 2008; Wylie et al., 1996) and this evaluation, have found a consistent figure of over 20% of children are enrolled in more than one ECE service in New Zealand. The figures came from surveys of parents asking them about their ECE arrangements for an individual child.

The average weekly hours of attendance in an ECE service increased from 16 hours (2004) to 16.9 hours (2006) to 19.5 hours (2009).

## Provision and participation – ward-level picture

### Provision

There were 245 licensed ECE services in the eight study wards in 2004, 251 in 2006, and 284 in 2009. The next table gives the range of licensed ECE service types in each year. Data on the two licence-exempt services (a playgroup and puna) that were studied in 2004 and 2006 are not included in this table since data on the number of licence-exempt services in these localities were unreliable.

**Table 4: Licensed ECE service types and numbers for the eight study wards (based on database provided in 2009 by MOE)**

Service type	2004 (n=245)	2006 (n=251)	2009* (n=284)
Kindergarten	34	35	35
Kōhanga reo	36	33	31
Casual education and care	2	1	2
Education and care	136 (includes Pasifika)	142 (includes Pasifika)	174 (includes Pasifika)
Playcentre	23	24	24
Home-based**	14	16	18

\*Note that ward boundaries are slightly different from when the 2006 report was written so the figures are different from those given in the 2006 report. We have reworked the figures with comparable boundaries.

\*\*Home-based service address data are not always a good indication of where their services are provided from. Usually only the address of the national or regional office or of the network coordinator are given.

Between 2007 and 2009, there were 10 closures. The majority (seven) were education and care centres; two were kōhanga reo; and one a home-based network.

In the same period, 40 new services opened and stayed open and a further three opened but closed. Another service closed and re-opened. Forty services stayed open and their localities were:

- thirteen education and care centres (Pōhutukawa, a high Pasifika main urban locality, a site for Promoting Participation Project)
- ten education and care centres (Kōwhai, a main urban locality, a site for Promoting Participation Project)
- one education and care centre and two home-based networks (Karaka, a minor urban locality)
- four education and care centres (Nīkau, a main urban locality, high ECE participation levels and high demand)
- nine education and care centres and one home-based network (Rātā, a main urban locality, high ECE participation levels and high demand).

## Enrolment

The locality figures on enrolment for 2004 and 2006 presented in this section are not directly comparable with 2009 figures because of changes in ward boundaries that occurred in the 2006 Census. Differences between years 2004/2006 and 2009 may have occurred because of these changes. Nevertheless, some emerging trends are consistent with the national picture.

In total, 9,459 children were enrolled in the licensed and licence-exempt ECE services in the eight wards in July 2004 and 9,564 in July 2006. The overall increase between 2004 and 2006 was 1.1%. By July 2009 enrolments in the redefined wards had increased a further 18% to 12,297. Over a third of enrolments were aged four years or more. While census figures across the eight wards indicated a population increase (6%) in 0- to 5-year-olds between 2006 and 2009 and a 5% increase in children aged four years old, the figures do not explain the 18% increase in enrolments or the surge in enrolments for four-year-olds.

A higher percentage of one- and two-year-olds were enrolled in 2006. Again in 2009 in the redefined wards the increases were high for the younger age groups, particularly so for the one-year-old and below age group. The pattern is consistent with national trends showing the rate of percentage increase in enrolments had been greatest over the last five years for young children aged two years and below (Ministry of Education, 2009a).

The biggest percentage increases in enrolments of one-year-olds were in four localities, Karaka, Nīkau, Rātā and Rimu. The 2009 census figures for these locations show only slight increases in the one-year-old population since 2006. However, across the first three of these four localities a high number of new services opened: 14 education and care centres, and three home-based networks, all services which cater for younger children. It may be that the availability of different types of service catering for particular age groups impacts on participation for that age group. At a national level since 1997, there has been a large increase in the number of enrolments for both education and care and home-based services, with a 98% increase in enrolments for home-based services and a 65% increase for education and care centres (Ministry of Education, 2009c).

Enrolments for three- and four-year-olds also increased steeply across five of the eight localities, Kauri, Pōhutukawa, Kōwhai, Karaka and Tōtara. Some increases occurred in birth rates three or four years ago that would now be changing

the underlying population for these age groups. As well, in three of the five localities, Pōhutukawa, Kōwhai and Karaka, a high number of new education and care centres had opened, 23 across the three localities, which may explain the sharp increase in enrolments in these localities. In Kauri, some services had expanded their rolls while in others changes to services provided had attracted a greater number of children. Another factor contributing to increases across all localities may be the advent of *20 hours ECE* for children three years and over.

### Enrolment hours by year and age

Hours reported in this section are for enrolments, not for children. Children may attend more than one service and hence be enrolled longer than is indicated here.

Overall, enrolments in the study wards were for longer hours in 2009 than in 2006, reflecting national trends. Since 2005 the rate of full-time enrolments in ECE (more than 27 hours a week) has increased at a faster rate (37.1%) than part-time enrolments (6.3%).

In 2006, children under three years of age were enrolled for longer hours in the licensed ECE services in the study wards than in 2004. However, in 2009 this trend was reversed with children in this age group in the redefined wards being enrolled for shorter hours than in 2006.

In 2006, the age group with the greatest shift towards longer hours was under-one-year-olds. Thirty percent of under-one-year-olds in ECE services in these eight wards were enrolled for 39 hours or more per week compared with 21% in 2004. By 2009 this had dropped back to 24% of enrolments for this age group. At the same time, enrolments for this under-one-year age group had increased in the categories covering lower hours per week, particularly nine to 18 hours per week where enrolments increased from 10% to 18%.

Children aged two years were, however, enrolled for longer hours. Figures show a steady increase in enrolments for this age for 30 to 38 hours, and for 39 hours and more per week, from 2004 through to 2009.

In 2006, two localities stood out for their high percentages of under-one-year-olds who were enrolled in ECE for 39 hours or more per week, Kōwhai (43% of enrolments for this age group) and Pōhutukawa (40%). In 2009 these redefined localities had high percentages of two-year-olds enrolled, (Kōwhai 46% and Pōhutukawa 35% of enrolments for this age group). Both are sites for Promoting Participation Projects and both had a high number of new services opened between 2006 and 2009. In Pōhutukawa, thirteen education and care centres opened, two of these were casual education and care centres. In Kōwhai nine education and care centres, one of these a Pasifika centre, opened.

Enrolment hours for three- and four-year-olds in the study locations generally increased most for categories of 30 hours or less, perhaps reflecting enrolments in *20 Hours ECE*, as well as increases of use of longer hours. Our survey of parents in the ECE services in the localities showed parents who changed their hours tended to match these to the *20 hours ECE*. Locations where high numbers of new services had opened, Pōhutukawa, Kōwhai and Rātā, had high percentages of children enrolled in services for between 9 to 30 hours.

**Table 5: Enrolment hours by year and age (under three)**

Age	Under one year			One year			Two years		
	2004 (n=357) %	2006 (n=368) %	2009 (n=468) %	2004 (n=940) %	2006 (n=1,047) %	2009 (n=1,514) %	2004 (n=1,532) %	2006 (n=1,681) %	2009 (n=2,088) %
9 or less	37	28	30	33	30	26	39	37	27
More than 9 and up to 18	18	10	18	14	16	20	19	19	22
More than 18 and up to 21	5	5	6	4	5	6	4	4	6
More than 21 and up to 30	13	13	14	15	13	17	11	11	13
More than 30 and up to 39	6	13	10	9	10	9	7	8	9
More than 39	21	30	24	25	25	23	20	21	23

The hour categories are those used in the Annual Return of Children and Staff for ECE Services (RS61). Kōhanga reo data were not available.

**Table 6: Enrolment hours by year and age (three and over)**

Age	Three years			Four years			Five years		
	2004 (n=2,512) %	2006 (n=2,601) %	2009 (n=3,471) %	2004 (n=3,267) %	2006 (n=3,064) %	2009 (n=4,026) %	2004 (n=46) %	2006 (n=78) %	2009 (n=97) %
9 or less	50	51	33	28	23	18	28	15	25
More than 9 and up to 18	22	19	24	48	44	40	35	39	32
More than 18 and up to 21	3	4	10	4	7	9	7	5	6
More than 21 and up to 30	8	8	13	8	10	15	24	32	21
More than 30 and up to 39	4	5	6	3	5	5	0	6	7
More than 39	14	14	14	10	11	12	7	3	6

The hour categories are those used in the Annual Return of Children and Staff for ECE Services (RS61). Kōhanga reo data were not available.

**Table 7: Overall enrolment hours by year and age (0–5 years)**

Age	Overall (0–5 years)		
	2004 (n=8,654) %	2006 (n=8,839) %	2009 (n=11,664) %
9 or less	37	35	26
More than 9 and up to 18	30	27	28
More than 18 and up to 21	4	5	8
More than 21 and up to 30	9	10	14
More than 30 and up to 39	5	6	7
More than 39	15	16	17

The hour categories are those used in the Annual Return of Children and Staff for ECE Services (RS61). Kōhanga reo data were not available.

**Table 8: 2004, 2006 and 2009 ECE enrolments by ethnicity**

Locality	European/ Pākehā			Māori			Pasifika			Asian			Other		
	2004 (4,669) %	2006 (4,701) %	2009 (5,868) %	2004 (2,527) %	2006 (2,409) %	2009 (2,007) %	2004 (1,272) %	2006 (1,374) %	2009 (1,652) %	2004 (830) %	2006 (820) %	2009 (1,107) %	2004 (161) %	2006 (260) %	2009 (1,030) %
Kauri	19	21	28	78	77	70	2	1	1	0	1	1	0	0	0
Pōhutukawa	39	41	39	18	16	11	23	24	26	17	15	18	2	4	6
Kōwhai	36	35	25	34	33	30	18	19	22	9	10	12	2	3	11
Karakā	68	73	77	31	26	20	1	1	1	1	0	1	0	0	1
Tōtara	48	40	51	47	56	41	2	2	4	3	3	3	0	0	1
Nīkau	89	86	92	8	8	6	0	1	1	2	1	1	1	4	1
Rātā	75	74	69	14	12	8	5	6	3	4	4	3	3	3	16
Rimu	88	85	87	10	14	8	1	0	0	1	1	4	0	0	4
Overall	49	49	50	27	25	17	13	14	14	9	9	9	2	3	9

Numbers do not add up to 100% because of missing data from about 2% of services overall. All licensed and licence-exempt services are included.



### Enrolments by ethnicity

Through the implementation of the ECE strategic plan, the Government is seeking to increase the ECE participation of Māori and Pasifika children. Overall for these eight wards,<sup>10</sup> European/Pākehā children comprised 49% of enrolments in both 2004 and 2006 and 50% in 2009 in the redefined wards. Māori children were 27% in 2004, 25% in 2006 and 21% in 2009. Pasifika children were 13% (2004) and 14% (2006, 2009), and Asian children were 9% across the three years. The percentage of Māori enrolments seemingly went down across all wards, while enrolment for ‘other’ increased in all wards, particularly so in Kōwhai (a main urban locality, a site for Promoting Participation Project) and Rātā (a main urban locality). The drop in Māori enrolments coincides with falling kōhanga reo (mostly Māori) and rising education and care services, which fewer Māori attend. In addition, MOE notes “that there has been a large increase in the category of Other since 2007, which relates to poor ethnicity coding by one home-based provider group. It is likely that Māori and European enrolments are slightly underestimated” (Ministry of Education, 2009c).

It is also hard to make a meaningful interpretation of these data on ethnicity since Statistics New Zealand does not collect information about the overall population levels in wards by ethnicity. It may be that the ethnic composition of the population changed in these localities between 2006 and 2009 and such change is reflected in the ECE enrolment figures. The redefined ward boundaries also mean it is not possible to make precise comparisons.

### Attendance regularity

Levels of regularity of attendance have implications for both children’s learning opportunities and for services’ sustainability, since MOE funding is tied to actual attendance. We have information for attendance regularity nationally and for the localities in the study overall.

Overall, the regularity of attendance of the children enrolled in an ECE service in these localities did not change between 2004 and 2006. Around 81% of children attended regularly in each year. In 2009, regularity of attendance reduced to 76%. This reduction was a little more marked than the national picture where regularity of attendance was 83% in 2006 and 80% in 2009.

### ECE attendance of school entrants

This section uses school new-entrant data. These are administration data collected from parents by schools and can be quite variable in terms of quality. In particular, figures for smaller areas, such as ward level, can only be read as indicative.

From 2004 to 2006, attendance in any ECE service before school entry decreased in four localities, stayed the same in two localities and increased in two localities. Two localities, Karaka and Kōwhai, showed the most marked shifts in attendance of new entrants from 2004 to 2006. In both localities attendance decreased.

However, in 2009 attendance increased across all localities. Notable increases were in Karaka and Tōtara (both minor urban localities); and in Kauri (minor urban, predominantly Māori), Pōhutukawa and Kōwhai (main urban localities and sites for Promoting Participation Projects); and Nīkau (also main urban with high ECE participation and high demand).

The percentage of children having any ECE attendance before starting school improved in every locality in 2009. It varied across localities from 73% to 99% in 2004, 74% to 97% in 2006 and 81% to 100% in 2009. All the localities in the study had a lower median income than the income for all of New Zealand. MOE statistics (Ministry of Education, 2009c) show that the extent to which children participate in ECE differs between different socioeconomic backgrounds. In 2006, 86% of children who attended a decile 1–2 school attended an ECE centre before starting school compared

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<sup>10</sup> These figures include kōhanga reo children.

with 99% of children attending a decile 9–10 school. By 2009, the situation had not improved for children from decile 1 schools, with just 82% of children having attended an ECE centre. However, there was a small increase for children from decile 2 schools, where 90% of children had attended an ECE centre. Some low-income localities in this study had considerably lower percentages of ECE participation across time, suggesting the value of examining locality patterns and tailoring initiatives to the local context.

**Table 9: ECE attendance of new entrants to school in 2004, 2006 and 2009**

Locality	Overall attendance (% of new entrants) 2004	Overall attendance (% of new entrants) 2006	Overall attendance (% of new entrants) 2009
Kauri	73	74	81
Pōhutukawa	78	78	84
Kōwhai	80	76	81
Karaka	98	88	99
Tōtara	94	92	100
Nīkau	91	92	98
Rātā	96	96	98
Rimu	99	97	100

National figures (Ministry of Education, 2009c) showed a slight fall in ECE participation from 2005 to 2006 for children attending decile 1 – 2 schools (86% in 2006). By 2009 the national figures, while low for children attending decile 1 schools, reflect an increase for children attending decile 2 schools. The figures for the low-income localities in this study do suggest that MOE participation initiatives implemented in these localities are supporting an increase in participation in ECE of three- and four-year-olds.

Three localities (Kauri, Pōhutukawa, and Kōwhai) had comparatively low percentages of children attending an ECE before school entry in 2004 and 2006. While these had risen by 2009, the participation rates remained low in comparison to national rates.

These three localities had the highest unemployment rates of the eight localities at the 2001 Census (18.7%, 13.4% and 11.8% respectively compared with 7.5% for all of New Zealand). Pōhutukawa and Kōwhai are main urban localities, with high Pasifika populations. Both localities are sites for Promoting Participation Projects. We have already noted the increase in attendance of three- and four-year-olds enrolled in ECE in these two localities, which could be associated with increased ECE provision for this age group. Pōhutukawa gained 13 new education and care centres, and Kōwhai nine, since 2007. Kauri, however, had two services close.

## Participation – service-level picture

This section gives details of participation levels and shifts from 2004 to 2006 to 2009 for the 32 services in the study and looks at factors that might be related to differences in participation patterns and shifts.

### Dimensions of ECE participation

#### *Duration of ECE participation*

Data on two indicators of duration of ECE participation were measured: duration in months and starting age. Duration in months is related to starting age.

*Duration in months* was chosen as an important participation indicator because of research suggesting that two or three years attendance at an ECE service before starting school is associated with gains for children in cognitive and social competencies and dispositions (Barnett & Lamy, 2006; Broberg, Wessels, Lamb, & Hwang, 1997; Sammons, 2010; Sylva et al., 2004, 2010; Wylie & Hodgen, 2007; Wylie et al., 2004) provided the ECE service is of good quality. The *Effective Provision of Pre-school and Primary Education* (EPPE) project found that the number of months a child attends ECE has an enduring impact to Key Stage 1 (year 2, age seven), especially for academic skills. With respect to *learning dispositions*, the EPPE project found that longer duration and an early starting age in good quality ECE centres are beneficial, but longer duration in centres rated low quality in terms of having poor structural features (especially teacher qualifications) and poor adult:child interactions and communication is not.

*Starting age.* An early starting age in good quality ECE before age three is associated with gains in competencies (Broberg et al., 1997; Sammons, 2010; Sammons et al., 2002; Wylie & Hodgen, 2007). The EPPE project found that “an earlier start (under age 3 years) is related to significantly better intellectual development by the time children start primary school especially for language outcomes” (Sammons, 2010, p. 94).

There is mixed evidence about whether starting before age two is more advantageous than starting between ages two and three. A small number of international studies have found an early starting age before age two is associated with higher levels of *antisocial or worried* behaviour for some children at the time of attendance or shortly after school entry. These associations were generally found in centres rated as low quality, suggesting it is early entry combined with poor quality that contributes to negative impacts (Hausfather, Toharia, La Roche, & Engelsmann, 1997; Sammons et al., 2002). The EPPE project found that earlier negative effects on social behaviour did not persist at age 11 years (Sylva et al., 2010).

There is evidence that language is easier to learn at an early age (Meade, Puhipuhi, & Foster-Cohen, 2003). An early start in kōhanga reo and Pasifika services and for children from non English-speaking homes who are learning English may assist language learning.

### *Intensity of participation*

Intensity of participation was measured by MOE statistics and parent reports for the study services on weekly hours of ECE attendance.

Few research studies have focused on the relationship between learning outcomes and weekly hours or the intensity of ECE participation. The longitudinal EPPE study (Sylva et al., 2004, 2010) of everyday ECE serving children from a range of family backgrounds found no evidence that full-time provision resulted in better outcomes for children than part-time. Their study did not differentiate between children in varying hours of part-time provision. One large US study (Loeb et al., 2005) found that, on average, children who had attended ECE centres for 15–30 hours a week experienced stronger cognitive gains than those attending for less. There were additional gains for children from low-income families attending for more than 30 hours but not for those from middle- and high-income families. Additional hours for higher income families failed to improve cognitive outcomes and slowed social development relative to 15–20 hours per week.

Some US studies report that attendance of more than 30 hours per week in centres rated as low quality is associated with moderately more antisocial/aggressive behaviour at the time of attendance or shortly after school entry. Quality of education and care is an important moderator of any negative effects of the amount of time in care (Love et al., 2003).

Language learning takes many hours of exposure and “preschoolers learning a second language need, and ideally get, many thousands of hours being exposed to the language” (Meade et al., 2003, not paginated). Te Kōhanga Reo National Trust recommends at least 30 hours per week for kōhanga reo children.

## Duration of participation

### *Months of ECE attendance*

It is not possible to gather data on total duration of ECE attendance until a child has started school. We gathered data on the number of months a child had attended and their current age.

On average, there were minor changes from 2006 to 2009 in months of ECE attendance as a proportion of age. Generally, parents reported that their child had been attending an ECE service for about half the time since their birth (eg, if the child was aged four years, average attendance was 24 months; if the child was aged three years, average attendance was around 18 months).

*Average months of ECE attendance as a proportion of age* differences were apparent in relation to service type. Children who attended kindergarten were more likely to have spent a lower percentage of their time since birth participating in ECE than children from other services in 2006 and 2009 and children from playcentre, the highest proportion of time. However, in 2009, differences associated with service type tended to be less pronounced than in 2006, ie. months of participation in all services, except playcentre, were closer to the average. Kindergarten children spent a higher proportion of time in ECE in 2009 than 2006, and education and care, home-based and Pasifika services a lower proportion of time.

**Table 10: Average current age and length of time child attended ECE by service type in 2006 and 2009**

Service type	Average current age (2006)	Average length of time attended (2006)	Average proportion of age attended (2006) %	Average current age (2009)	Average length of time attended (2009)	Average proportion of age attended (2009) %
Education and care	3 years 1 month	1 year 8 months	55	3 years 7 months	2 years 11 months	54
Home-based	2 years 9 months	1 year 7 months	59	3 years 1 month	1 year 7 months	52
Kindergarten	4 years 2 months	1 year 9 months	41	4 years 2 months	1 year 11 months	45
Pasifika	3 years 6 months	1 year 11 months	56	3 years 2 months	1 year 6 months	49
Playcentre	2 years 10 months	1 year 9 months	62	3 years 1 month	2 years	64

### *Starting age*

Starting age was measured by parent reports. Children were starting ECE at around two years in each year of the evaluation. The average starting age was two years in 2004, one year nine months in 2006, and one year ten months in 2009. An average starting age of two years is likely to be beneficial (if the ECE service is good quality) in terms of outcomes for children.

The measure of starting age was different in 2004 from 2006 and 2009. In 2006 and 2009, we asked about starting age directly. In 2004, we calculated starting age from subtracting age of child currently from length of time the child had attended any ECE service. These different methods pose a limitation around what we can say in terms of comparability between the years 2004 and subsequent years.

Similar to 2006, the starting age in 2009 was late for 2% of children (14 children) who started ECE after they turned four. Thirteen of these 14 children were enrolled at kindergarten. In 2006 and 2009, the oldest starting age was over four years six months. It would take a different study of children at school entry to find out about the total percentage of children starting ECE after the age of four or not attending ECE at all.

We found differences in levels and shifts between 2004, 2006 and 2009 for the indicator ‘starting age’ in relation to service type. Children attending playcentre, home-based services, education and care centres and Pasifika services had an average starting age under two years in each year of the evaluation. The youngest starting ages were in playcentre in 2006 and 2009. In playcentres, children under 2½ years would have attended with their parent or a nominated person. The starting ages for these children did not change very much over the evaluation years.

Kindergarten children had the oldest starting ages, between ages two years and three years. The pattern for kindergartens seems to be changing, however. The trend identified in 2006 for kindergarten children to be starting younger continued in 2009. The trend could be because of parents placing a greater value on ECE at a younger age, increased maternal employment and the need for childcare or ECE becoming more affordable with increased government funding.

**Table 11: Average starting age\* in months by service type and year**

Service type	Average starting age (2004)	Average starting age (2006)	Average starting age (2009)
Education and care	1 year 8 months (n=218)	1 year 5 months (n=201)	1 year 7 months (n=214)
Home-based	1 year 6 months (n=33)	1 year 2 months (n=19)	1 year 6 months (n=19)
Kindergarten	2 years 11 months (n=360)	2 years 6 months (n=287)	2 years 4 months (n=268)
Pasifika	1 year 4 months (n=52)	1 year 6 months (n=22)	1 year 8 months (n=13)
Playcentre	1 year 5 months (n=79)	1 year 3 months (n=95)	1 year 2 months (n=69)

\* The measure of starting age is not directly comparable between 2004 and the other years.

## Intensity of participation

### *Hours of attendance*

Average hours of ECE attendance increased in 2009. The average hours of ECE attendance were 10–15 hours per week in both 2004 and 2006 and 17 hours in 2009. The 2009 hours are within the range of 15–20 hours for children over two suggested by Loeb et al. (2005) as affording good opportunity for cognitive gain. In 2009, fewer children were attending ECE for a few hours per week than in 2006 and 2004. According to parent reports, 43% of children overall attended ECE for less than 10 hours per week in 2004, 40% in 2006 and 29% in 2009. Children attending playcentre (89% in 2004; 86% in 2006; 90% in 2009) were more likely to attend for less than 10 hours per week.

Eleven percent of children attended an ECE service for more than 30 hours per week in 2009. Children in home-based (32%), education and care centres (22%) and Pasifika services (14%) were more likely than kindergarten (3%) and playcentre (none) children to attend for longer hours. The longest time of attendance was 52 hours per week.

Parent responses showed some variation in hours of attendance by child age in each year. A higher percentage of the under-three-year-age groups were in ECE for 30 hours or more per week compared with children aged three years old and over in each year of the evaluation. There was a steady decline over time in the percentage of each age group participating in ECE for less than 10 hours per week. The average hours reported are per child.

**Table 12: Hours of attendance by child age in 2004, 2006 and 2009**

Hours per week	Under three			Over three		
	2004* (n=124) %	2006 (n=145) %	2009 (n= 100) %	2004 (n=511) %	2006 (n=466) %	2009* (n=488) %
10 or less	48	46	44	41	38	26
10.1 to 30 hours	32	34	38	51	52	63
30.1 hours or more	18	20	18	8	7	9

\*Percentages do not add to 100 because of some non-responses.

Over this time period, for services in the study, hours of attendance rose from 12.5 to 12.6 to 14.2 hours for kindergartens and from 19.5 to 20.8 to 23.5 hours for education and care centres. They were fairly constant in home-based services (21.5 hours in 2009) and in playcentres (four hours in 2009). In 2009, intensity had increased in four of the eight kindergartens and remained at high 2006 levels in two kindergartens. Since 2006, five of these six kindergartens had increased the length of some sessions or were operating for a full-day. One was offering full day and sessional provision. According to managers, the changes made to operation were largely in response to funding incentives from the 2005 funding formula, *20 hours ECE* and meeting community need.

#### *Regularity of attendance*

Information about regularity of attendance was gathered from parents in 2006 and 2009. In 2004, this information came from managers. The parent data give a more accurate picture of regularity and the reasons for absences.

Most children were reported by parents to be regularly attending ECE in 2006 (83%) and 2009 (84%). Sixteen percent of parents in 2006 and 15% in 2009 stated their child had missed three or more ECE sessions or days in the last four weeks. Differences in regularity of attendance were associated with income levels and ethnicity. Children from low-income families were more likely to have missed three or more sessions/days in the last four weeks than children from higher-income families.

**Table 13: Missing three or more sessions/days in last four weeks by income level in 2006 and 2009**

Year	<\$30k % (n)	\$30k - 69k % (n)	\$70k + % (n)	Total*
2006	18 (142)	11 (274)	14 (124)	14 (628)
2009	23** (113)	13 (216)	14 (197)	15 (595)

\* Figures do not add to total because of unknown income level for some families.

\*\* Denotes a higher percentage of parents than overall total.

Children of Māori, Asian and 'other' (eg, South American, African, Middle Eastern) ethnicities were more likely to have missed three or more sessions/days in the last four weeks than children of Pasifika and Pākehā/European ethnicities.

**Table 14: Missing three or more sessions/days in last four weeks by ethnicity in 2006 and 2009**

Year	Māori % (n)	Pasifika % (n)	Asian % (n)	Other % (n)	Pākehā % (n)	Total % (n)
2006	21* (156)	14 (51)	19* (32)	23* (31)	10 (358)	14 (628)
2009	25* (135)	13 (47)	22* (27)	28* (38)	9 (328)	15 (595)**

\* Denotes a higher percentage of parents than overall total.

\*\* Total number different because of unknown ethnicity for some children.

The main reasons for non-attendance given by parents in each year were that the child was sick or a family member was sick or the child was on holiday or with another family member. Other reasons were transport difficulties, bad weather, other family commitments, and the child being at a tangi or funeral. Low income affects participation because families may have limited resources to provide, for example, transport when weather is wet and to afford health services when the child is ill.

## Intermediate outcomes

### ECE services are accessible

The NZCER 2003/2004 national survey of ECE services (Mitchell & Brooking, 2007) found some problems in parents accessing the ECE service of their choice. Fourteen percent of parents wanted to access a different type of ECE service but could not. The second 2007 national survey (Mitchell, 2008) found a slightly lower percentage of parents (11%) wanting to use a different type of ECE service but not being able to. The reasons in each year were the service did not have a place (waiting lists) or that cost was a barrier.

Two indicators were used for the intermediate outcome 'ECE services are accessible'. These were 'Services meet needs' and 'Supply meets demand'.

*Services meet needs* was measured by parent ratings of whether the times for their current services suited them and of how well service meets needs of close to work/and close to home, and hours.

*Supply meets demand* was measured by the proportion of parents on the waiting list for other services. In 2004, we asked whether the choice of service in the area met parental needs and in 2006 and 2009, whether there was an ECE service the parent would like to use but could not and the reasons for their responses.

*Affordability* was measured by how parents rated affordability.

### *Services meet needs*

Most parents were satisfied with the times the service was available and levels of satisfaction did not change over the five years of the evaluation. Nine percent of parents in 2004 and 2006, and 10% in 2009 said the times their child attended did not suit them.

Yet parents wanted to use more hours, despite their apparent satisfaction with times available and despite changes that have occurred in ECE service operation. Thirty-three percent of parents in 2006, down slightly to 28% in 2009, marked they would like to use more hours. Over half of these (56% in 2006 and 51% in 2009) wanted to use up to four more hours only.

Parents' desire for more hours has been fairly constant in the last decade. Twenty-five percent of parents in the NZCER 2007 national survey (Mitchell, 2008), and 27% of parents in the *New Zealand childcare survey 1998* Department of Labour and National Advisory Council on the Employment of Women (1999), wanted to use more hours.

Kindergarten parents in 2009 were more likely than other parents to state the times their child attended ECE did not suit them (15% compared with 8% of playcentre, 7% of Pasifika, 6% of education and care and no home-based parents). Kindergarten parents were most likely to want a school day. Nevertheless, fewer kindergarten parents stated times did not suit in 2009 (15%) compared with 2006 (23%) probably because of longer sessions available in 2009 and one kindergarten moving to a full day.

The main reason why more hours were not being used was that the service did not provide the hours wanted. The percentage of parents marking this option reduced from 46% in 2006 to 35% of parents wanting more hours in 2009. Other main reasons changed little over time: more hours were too expensive (28% in 2009, 26% in 2006) and the ECE service had no places for the hours the parent wanted (28% in 2009, 24% in 2006).

### *Supply meets demand*

Few (current user) parents reported their child was on a waiting list for another service: (7% in 2004; 9% in 2006; and 5% in 2009).

A higher percentage of the two-year-olds were on a waiting list in 2004 and 2009, and a higher percentage of the three-year-olds in 2006.

In each year, playcentre and home-based parents were most likely to have their child on a waiting list for another service, followed by education and care parents. However, a smaller percentage of education and care parents had their child's name on a waiting list in 2009 compared with 2004 and 2006. The apparent decrease in children on a waiting list in 2009 could perhaps be accounted for by greater satisfaction with the current service times and services being more affordable in 2009.

**Table 15: Percent of parents with child on waiting list for another service by type and year**

Year	Kindergarten	Playcentre	Pasifika	Education & care	Home-based	Total
2004	n=8 2%	n=19 24%*	0	n=28 14%*	n=6 18%*	n=64 7%
2006	n=5 2%	n=25 26%*	n=1 3%	n=36 17%*	n=4 15%*	n=73 9%
2009	0	n=13 18%*	0	n=14 6%	n=4 21%*	n=31 5%

\* Denotes a higher percentage of parents than overall total.

Ten percent of parents in 2004 said the choice of service type did not meet their needs. In 2006, the question was changed to ask whether there was an ECE service the parent would like to use but could not. Ten percent of parents in 2006 and 8% of parents in 2009 marked that there was an ECE service they would like to use but could not.

In 2004, a higher proportion of Pasifika service parents compared with parents overall stated the choice of service did not meet their needs and in 2006 and 2009 a higher proportion of Pasifika parents wanted to use another service but could not. Playcentre parents were more likely to want to use another service in 2009 than were parents overall.



**Table 16: Percent of parents for whom choice of service does not meet needs (2004) or parent would like to use another service but cannot (2006 and 2009)**

Year	Kindergarten	Playcentre	Pasifika	Education & care	Home-based	Total
2004	38 (11%)	6 (8%)	7 (16%)*	20 (10%)	2 (6%)	88 (10%)
2006	26 (9%)	5 (7%)	7 (32%)*	23 (11%)	5 (23%)*	64 (10%)
2009	17 (6 %)	10 (14%)*	2 (14%)*	17 (8%)	2 (11%)	48 (8%)

\* Denotes a higher percentage of parents than overall total.

For those parents wanting to use another service, the main reasons overall why they could not were that the service had no free places or was too expensive. In 2009, fewer parents gave as a reason that the service was not available locally (12% in 2009, 16% in 2006) or was too expensive (27% in 2009, 47% in 2006). Around the same percentage stated there were no free places (28% in 2006, 29% in 2009). These findings suggest that funding initiatives to limit costs to parents are having a positive impact on parental choice of service and that the increase in new services reported in Table 4 has increased the supply of services available locally. However, parents are still constrained by not being able to access a place in their chosen service when they want.

Overall, the main types of service these parents wanted to use but could not use in 2009 were: kindergarten (42%), education and care (33%),<sup>11</sup> kōhanga reo (10%), playcentre (6%), and home-based (4%). The pattern was somewhat different in 2006, where the preferred service was education and care (48%), followed by kōhanga reo (17%), kindergarten (9%), playcentre (9%), home-based (9%), and playgroup (4%). It may be that the shifts that have occurred in the operation of kindergartens since 2005 towards longer opening hours have made kindergartens more attractive to families seeking longer hours while they are in paid employment. This would account for the increase from 9% of parents wanting to use kindergarten in 2006 to 42% in 2009. The decline in parents wanting to use education and care centres but being unable to do so from 2006 to 2009 could perhaps be accounted for by the reduction in cost barriers for these services. Parents who could not afford an education and care service but wanted to use this service type in 2006 may be using such a service in 2009.

In 2006 and 2009, we asked a new question about whether the parent would like to use more hours of ECE (in addition to whether the times and hours suited). Thirty-three percent of parents in 2006 and 29% in 2009 would like to use more hours. The main reasons why they could not use more hours were that:

- their current ECE service did not provide the hours the parent wanted (15% 2006, 10% 2009)
- additional hours were too expensive (9% 2006, 8% 2009)
- their current ECE service did not have places for the hours wanted (8% 2006, 8% 2009).

The percentage of kindergarten parents marking that the kindergarten did not provide the hours they wanted reduced from 23% in 2006 to 16% in 2009, suggesting that the expansion of hours reported by kindergarten managers for five of the eight kindergartens in the study is suiting parents. In 2006, home-based (32%) and education and care parents (16%) were over-represented in those saying additional hours were too expensive. This had reduced to none and 12% respectively in 2009. These findings provide evidence that funding increases and the *20 hours ECE* policy have made a difference to affordability for parents from these service types.

Just over half of those who wanted more hours wanted only up to four more hours per week (54% in 2006, 51% in 2009).

<sup>11</sup> Note: percentages are of parents responding that they wanted to use another service but could not (n=75).

**Table 17: Number of additional hours wanted by parents in 2006 and 2009**

Year	Up to 2 hours % (n)	3–4 hours % (n)	5–9 hours % (n)	10–14 hours % (n)	15 or more hours % (n)	No response % (n)
2006 (n=209)	16 (n=33)	38 (n=80)	24 (n=51)	11 (n=22)	10 (n=20)	1 (n=3)
2009 (n=172)	13 (n=22)	38 (n=66)	27 (n=46)	13 (n=22)	8 (n=13)	1 (n=3)

### Affordability

From parents' perspectives, ECE services were more affordable in 2009. Eighty percent of parents found their service 'affordable' or 'easily affordable' in 2009, compared with 66% in 2006 and 72% in 2004. The 2009 data collection came after 20 hours ECE was implemented. More Pasifika (50%), home-based (32%) and education and care (24%) parents rated their ECE service as 'affordable but difficulties' or 'barely affordable' than overall (15%) in 2009. This also reflects the fact that these services are more likely to be full-time and charge higher fees.

**Table 18: Affordability of ECE services for parents in 2004, 2006 and 2009**

Year	'Easily affordable' %	'Affordable' %	'Affordable, but some difficulties' %	'Barely affordable' %	No response %
2004 (n=690)	30 (n=206)	42 (n=293)	21 (n=142)	3 (n=22)	4 (n=27)
2006 (n=628)	27 (n=172)	39 (n=245)	25 (n=158)	3 (n=21)	5 (n=32)
2009 (n=595)	55 (n=326)	25 (n=147)	13 (n=75)	2 (n=10)	6 (n=37)

Costs to parents were highest in 2006 for every service type except home-based. The data on costs needs to be considered alongside the fact that average hours had increased between 2006 and 2009, so children were attending for longer at a lower cost.

**Table 19: Average amount paid per week by parents in 2004, 2006 and 2009**

Year	Kindergarten \$ per week	Playcentre \$ per week	Pasifika \$ per week	Education & care \$ per week	Home-based \$ per week	Total \$ per week
2004 (n=690)	6.91	3.04	29.80	80.29	53.74	33.34
2006 (n=628)	9.84	7.31	54.62	82.13	57.83	37.50
2009 (n=595)	3.62	3.85	41.10	77.52	63.98	36.98

Amount paid varied according to family income. Generally, the higher the income, the more families paid for their ECE service. One anomaly in 2009 is that families in the income bracket \$20–29k paid more on average per week than those in the next income bracket (\$30–49k). This could have been because of the hours of attendance of these children in the service. The maximum cost was \$280 per week in 2004, \$327 per week in 2006 and \$400 per week in 2009 for education and care.

Difficulties in affording the cost of the ECE service were inequitably experienced by higher percentages of lower-income families in 2004 and 2006. In 2009, fewer families experienced difficulties and lower-income families were no longer more disadvantaged than higher-income families. These findings suggest that the new funding formula and rates, revised childcare subsidy and 20 hours ECE are keeping ECE affordable for most families in every income bracket.

**Table 20: Average amount paid per week and affordability by family income and year**

Family income	2009 Average amount per week \$	2009 Difficulties in affording cost** %	2006 Average amount per week \$	2006 Difficulties in affording cost** %	2004 Average amount per week \$	2004 Difficulties in affording cost** %
> \$20k	10.99 (n=44)	11.3	31.51 (n=49)	44.3	14.52 (n=97)	32
\$20-29k	23.67 (n=45)	13.9	21.83 (n=64)	28.4	19.69 (n=73)	32.9
\$30-49k	15.83 (n=85)	9.8	32.54 (n=138)	31	26.35 (n=158)	25.1
\$50-69k	33.52 (n=84)	13.1	31.63 (n=100)	32.8	34.18 (n=108)	17
\$70-89k	34.50 (n=81)	16	49.88 (n=55)	19.7	65.57* (n=106)	14.2
\$90-109k	54.07 (n=42)	12.8	78.71 (n=29)	18.2		
\$100k+	117.61 (n=48)	12.9	84.30 (n=26)	10		
Not sure	8.45 (n=24)	21.2	26.46 (n=36)	21.8	10 (n=45)	31.1

\*In 2004, the top category was \$70k+.

\*\*Parent ratings of 'Affordable, but some difficulties' and 'Barely affordable' were combined.

More parents were using the childcare subsidy in 2009 (68%) compared with 27% in 2006 and 20% in 2004.

#### *Attending more than one ECE service*

We did not include concurrent attendance of two or more ECE services in the indicator of accessibility but this pattern adds to our understanding of ECE participation and parental decision-making around services. Consistent with other studies, there was a high incidence of children attending more than one ECE service. There was an increase in incidence of children attending more than one ECE service or informal care arrangement between 2004, 2006 and 2009, from 23% to 27% to 29%.

Pasifika parents were less likely than other parents to use more than one arrangement, although sample numbers were small. Home-based parents were more likely than other parents to use more than one arrangement but the sample was also small for this group.

**Table 21: Percent of parents with child attending more than one ECE service or informal care arrangement by type and year**

Year	Kindergarten	Playcentre	Pasifika	Education & care	Home-based	Total
2004	(n=360) 22%	(n=70) 34%	(n=28) 7%*	(n=201) 22%	(n=31) 32%	(n=690) 23%
2006	(n=301) 29%	(n=71) 32%	(n=22) None*	(n=212) 25%	(n=22) 27%	(n=628) 27%
2009	(n=273) 33%	(n=72) 32%	(n=14) 14%*	(n=217) 21%	(n=19) 42%	(n=595) 29%

\* Denotes a lower percentage of parents than overall total.

Education and care centres and kindergartens were the services that were most commonly used as an additional arrangement in 2006 and 2009 (this question was not asked in 2004), followed by kindergartens, home-based services and playcentres. Kindergartens were most commonly used as an additional arrangement by education and care, home-based and playcentre parents, while education and care centres were most commonly used by kindergarten parents.

**Table 22: Percent of parents using other types of service in 2006 and 2009**

Type of service used	Kindergarten	Playcentre	Pasifika	Education & care	Home-based	Total
Education & care (2006)	(n=301) 11%	(n=71) 16%	(n=22) None	(n=212) 3%	(n=22) None	(n=628) 8%
Education & care (2009)	(n=273) 11%	(n=72) 4%	(n=14) 7%	(n=217) 4%	(n=19) None	(n=595) 7%
Kindergarten (2006)	(n=301) None	(n=71) 14%	(n=22) None	(n=212) 10%	(n=22) 14%	(n=628) 6%
Kindergarten (2009)	(n=273) None	(n=72) 21%	(n=14) None	(n=217) 8%	(n=19) 26%	(n=595) 4%
Home-based (2006)	(n=301) 6%	(n=71) 4%	(n=22) None	(n=212) 2%	(n=22) None	(n=628) 4%
Home-based (2009)	(n=273) 10%	(n=72) 3%	(n=14) None	(n=217) 4%	(n=19) None	(n=595) 6%
Playcentre (2006)	(n=301) 5%	(n=71) 3%	(n=22) None	(n=212) 3%	(n=22) 5%	(n=628) 4%
Playcentre (2009)	(n=273) 6%	(n=72) 3%	(n=14) None	(n=217) 5%	(n=19) 5%	(n=595) 3%
Playgroup (2006)	(n=301) 3%	None	None	(n=212) 5%	(n=19) 9%	(n=628) 3%
Playgroup (2009)	(n=273) 3%	(n=72) 3%	(n=14) None	(n=217) 1%	(n=19) None	(n=595) 2%

Two percent of parents used a family member or friend, especially a grandparent, as an additional informal arrangement and 2% had a private nanny or babysitter as an additional informal arrangement.

In 2006 and 2009, we asked parents an open question about why they used more than one service. Parents gave two main reasons: because parents thought that using two or more ECE services offered benefits for the child, since each service offered different and complementary learning experiences and to fit in with parents' employment hours.

### Complementary learning experiences

*“Because playcentre and kindy give them different experiences and skills, both of which are beneficial.”*  
(Kindergarten, Kauri)

*“I value both Māori immersion culture and being able to have my child surrounded by peers his own age—I feel by him being enrolled in both centres, he is getting the best of both—He is very lucky.”* (Education and care, Kauri)

*“To give my child the experience of interacting in a larger group setting with less adult support prior to starting school.”* (Home-based, Gore)

### To fit with working hours

*“My child goes next door to Crèche after am session until 3pm so that I can work during school hours, 3 days a week. One day a week he is picked up by his grandmother and looked after until I finish work.”*  
(Kindergarten, Rātā)

*“Three-year-old at Montessori pre-school because of 20 hours free and very good for my child's learning/play. My 18-month goes to Nanna or homecare when I work and both go odd day to daycare when not able to go to Montessori, family or home care.”* (Education and care, Tōtara)

*“I use daycare to cover my working hours. I use kindy because I totally believe in its philosophy and it's getting children ready for school.”* (Education and care, Rimu)

### ECE services are sustainable

This measure used management questionnaire responses to cover dimensions of:

- service enrolment sustainability (whether there were no or few spare places and children remained until they went to school)
- staffing sustainability (whether management found it easy to meet regulated staffing requirements, including relievers, and did not predict future staffing problems)
- financial sustainability (whether management rated their service as financially stable).

Responses to our questions on service sustainability between 2004 and other years are not directly comparable because questions were asked in interview in 2004 and in questionnaire in 2006 and 2009. We report on 2006 and 2009 data, which also asked service managers to look back over two years and comment on sustainability issues.

#### *Service enrolment sustainability*

Spare capacity may be an indication that a service is finding it difficult to fill all child places (although some service managers opt not to operate at full capacity). Spare capacity reduced somewhat over the evaluation period.

In 2006, eight services (27%) had child places not being used on all days/sessions compared with six services (19%) in 2009. In 2006, four services (13%) had child places not being used on most days/sessions compared with two services (6%) in 2009.

In both 2006 and 2009, playcentre management were more likely than other service management to report that having spare capacity was a long-term issue. In 2006, four of the eight playcentre management reported having spare capacity for two or three years, and one for 18 months to two years. In 2009, there had been a reduction in the length of time playcentres had experienced spare capacity, down to 18 months to two years.

Rolls were stable for most of the services in 2006 and 2009, ie, most children stayed until they went to school. All the kindergartens had stable rolls in both years. The least stable rolls were reported by playcentre management. Four of eight in 2006 and three in 2009 reported that over half left before going to school.

### *Staffing sustainability*

In 2006 and 2009, managers were asked whether they found it easy to meet regulated requirements, including relievers, and whether they predicted problems in having sufficient qualified teachers/educators in the future.

Kindergarten head teachers reported the greatest ease in meeting staffing requirements and playcentre management the greatest struggle in both years.

In 2009, managers held a much rosier view of the outlook for the future. Six managers predicted having difficulty in having sufficient qualified educators/teachers in the future compared with 28 in 2006. The 2009 data was gathered before the Government announced changes to the timeline for achieving the 80% registered teacher requirement and before it removed the 100% target in teacher-led centre-based services. These managers regarded their service as on track for meeting the requirements.

**Table 23: Problems in staffing sustainability in 2006 and 2009**

Problem (year)	Kindergarten (n=8)	Playcentre (n=8)	Pasifika (n=2)	Education & care (n=12)	Home-based (n=2)	Total (n=32)
Struggles to meet regulated staffing requirements (2006)	1 (13%)	7 (88%)	-	2 (17%)	1 (33%)	11 (34%)
Struggles to meet regulated staffing requirements (2009)	1 (13%)	3 (38%)	-	3 (25%)	-	7 (22%)
Only sometimes, rarely or never uses qualified relievers (2006)	-	3 (38%)	1 (50%)	7 (58%)	1 (33%)	12 (38%)
Only sometimes, rarely or never uses qualified relievers (2009)	1 (13%)	5 (63%)	-	6 (50%)	-	12 (38%)
Predicts future problems in having sufficient qualified teachers/educators (2006)	4 (50%)	8 (100%)	2 (100%)	12 (100%)	2 (67%)	28 (88%)
Predicts future problems in having sufficient qualified teachers/educators (2009)	1 (13%)	3 (13%)	-	2 (17%)	-	6 (19%)

### *Financial sustainability*

The Health Outcomes International report (King, 2008) *Evaluation of the Sustainability of ECE Services* has examined financial sustainability in much greater detail than is provided here. It consulted with sector stakeholders, analysed MOE and Statistics New Zealand data sets and analysed financial data from the services in our evaluation. Their 2006 study found increased costs associated with the strategic plan are largely being met by the new ECE funding system. Their range of indicators of sustainability suggested that the ECE sector as a whole is sustainable and perhaps becoming gradually more so. It also found that on average the growth in ECE service fees had been less than the growth in the

general cost of living and in average hourly earnings. Their study suggests that 5–10 percent of ECE services may not be comfortably sustainable in 2006. This study was based on analysis of financial data.

Management ratings of financial sustainability had improved since 2006 for the services in this study. We asked managers to rate whether they had become more financially stable in the last two years, whether there had been no change or whether they were less financially sustainable. Ten service managers did not respond to this question in 2006 and three did not respond in 2009. Of those responding, in 2006, 60% thought they were more financially sustainable or there was no change. In 2009, 86% rated their service as more financially sustainable or not having changed. Those rating their service as less financially sustainable in 2009 were one home-based network, one kindergarten, one Pasifika service and one playcentre.

### *Overall sustainability*

In summary, services had generally become more sustainable in 2009 on each of our indicators of sustainability: staffing, enrolments and financial sustainability.

Pasifika services were less sustainable on measures of financial sustainability. On an individual service level, a Niuean service closed in 2006 because it owed money to the Inland Revenue Department (IRD). Two other Pasifika services did not take part in the evaluation. One was in the process of amalgamating. The other had low rolls. We discuss issues for Pasifika services in a separate report (Mitchell & Mara, *In preparation*).

### *ECE services are responsive*

The dimension, ‘ECE services are responsive’, was measured by indicators of parental satisfaction from the parent survey in each year of the evaluation. Parents were asked to rate how well their aspirations were met on 14 items about their current ECE programme, staffing, resourcing, and environment. They were also asked to rate their overall satisfaction with the ECE service.

Parents’ ratings of how well the ECE service met their needs were ranked in the same order and meeting similar levels of satisfaction in 2004, 2006 and 2009. Parents were most satisfied with qualities of the teachers/educators—their warmth and friendliness, and the happiness of children. In the next bracket of satisfaction came good resources, qualified teachers/educators and high standards of health and safety. The worst rated aspects were adult:child ratios and delivery of a culturally appropriate programme.

**Table 24: Parental satisfaction with characteristics of the ECE service in 2004, 2006 and 2009**

Characteristic	'Very well'			'Well'			'Satisfactorily/ Poorly/ Very poorly'		
	2004 (n=690) %	2006 (n=628) %	2009 (n=595) %	2004 (n=690) %	2006 (n=628) %	2009 (n=595) %	2004 (n=690) %	2006 (n=628) %	2009 (n=595) %
Friendly teachers/ educators	74	76	76	19	18	19	5	4	5
Children happy and settled	72	76	72	23	20	24	3	4	3
Warm and nurturing teachers/ educators	71	74	75	22	19	20	4	6	4
Well resourced ECE service	65	67	67	25	25	26	7	7	6
Qualified teachers/ educators	63	65	65	26	26	27	7	8	6
High standards health and safety	62	62	62	28	30	29	7	8	8
Good quality ECE programme	58	62	58	30	28	32	8	9	8
Good reputation	55	57	57	33	31	30	9	10	12
Hours that suit	54	55	58	28	29	25	15	14	13
Not too expensive	47	48	55	30	30	27	20	21	21
Attractive building and space	46	46	46	35	35	34	15	17	19
Good ERO report	41	43	43	34	33	31	9	10	12
High adult:child ratios	41	47	48	41	36	34	15	15	16
Culturally appropriate programme	37	40	39	35	33	31	21	20	22

Note: percentages do not add to 100 because of some non-responses.

There was no change in parental satisfaction with the quality of the ECE programme and qualified teachers/educators over the three years: both of these have been targets of strategic plan initiatives. This may be because parents rated affective characteristics (warm and nurturing teachers, friendly teachers, children being happy and settled) as most important to them and more important than a good quality programme or qualified teachers.



**Table 25: Parent ratings of the importance of characteristics of the ECE service in 2009 (n=595)**

Characteristic	Very important	Important	Not very important/ Not at all important	Not applicable/ no response
	%	%	%	%
Warm and nurturing teachers/educators	88	11		1
Friendly teachers/educators	84	15		1
Children happy and settled	82	16		2
High standards health and safety	78	20	1	1
Well resourced ECE service	68	30	1	1
Good quality ECE programme	64	31	3	2
Qualified teachers/educators	57	34	7	2
High adult:child ratios	46	44	6	3
Good reputation	42	47	8	3
Hours that suit	31	39	25	6
Good ERO report	30	47	18	5
Not too expensive	26	38	34	12
Attractive building and space	19	50	29	2
Close to home	17	38	39	6
Culturally appropriate programme	17	33	35	15
Close to work	9	19	48	25

Note: some percentages do not add to 100 because of rounding.

Levels of overall parental satisfaction were high in all three years and ‘very good’ satisfaction rose slightly over the years of the evaluation.

**Table 26: Overall parental satisfaction with ECE service in 2004, 2006 and 2009**

Year	Very good	Good	Satisfactory	Poor
2004 (n=690)	444 (64%)	184 (27%)	41 (6%)	
2006 (n=628)	420 (67%)	161 (26%)	33 (5%)	1 (0.2%)
2009 (n=595)	418 (70%)	128 (22%)	35 (6%)	3 (0.5%)

## Strategic plan policies: 20 hours ECE

Enrolments in 20 hours ECE have continued to increase since the 20 hours ECE scheme was introduced. At July 2009, 88.7% of three- to five-year-olds in licensed teacher-led services were accessing 20 hours ECE, an increase of 10.2 percentage points from July 2008. The percentage of services offering 20 hours ECE also increased from 83.4% of eligible services in 2008, to 93.5% in 2009. In 2009, all kindergartens were offering 20 hours ECE, followed by 92.8% of home-based services and 91.5% of education and care centres.

All the education and care, kindergartens and home-based services in our sample were offering 20 hours ECE. Playcentres were not eligible.

### 20 hours ECE and optional charges and voluntary donations

Two thirds of parents paid nothing for 20 hours ECE. Twenty percent of parents reported paying optional charges and 13% paying voluntary donations. Of those who reported paying optional charges, 42% reported these were for resources, 32% reported these were for excursions/events, 10% reported these were for food and 10% reported these

were for additional staffing. Thirty-eight percent of these parents reported they did not know or were unsure what the charges were for.

Most of these parents (118) reported paying less than \$6 per week. Fifteen parents paid \$6–\$10 per week, 12 paid \$11–\$20 per week, and seven paid \$21–\$30 per week. Thirteen parents paid more than this amount. The highest amounts paid were by education and care service parents. They were \$61–\$70 per week (one parent), \$70–\$80 per week (one parent), \$111–\$120 per week (two parents) and \$121+ per week (one parent).

#### Impact of 20 hours ECE on services

In the last two years, 20 hours ECE has been associated with an increase in the proportion of three- and four-year-olds participating in most of the teacher-led services and a reduction in the proportion in some playcentres and kindergartens. Two services were taking fewer under-three-year-olds. Nothing had changed for about a third of services.

**Table 27: Impact of 20 hours ECE on proportion of three- and four-year-olds by service type (n=32)**

Financial sustainability	Education & care (n=12)	Home-based (n=2)	Kindergarten (n=8)	Pasifika (n=2)	Playcentre (n=8)	Total (n=32)
More 3- and 4-year-olds	6	1	3	2	1	13
Fewer 3- and 4-year-olds			2		3	5
More under 3s						
Fewer under 3s	1			1		2
Nothing changed	5	1	3		3	12

Affordability for families was the main reason that teacher-led service managers gave for increases in enrolments.

*“More accessible cost wise.”* (Education and care management, Pōhutukawa)

*“Early childhood education is now more affordable for parents of three- and four-year-olds.”* (Education and care management, Tōtara)

*“Parents getting 20 hours free so place children in for those hours.”* (Kindergarten management, Nīkau)

Another reason was that new longer hours suited families better.

*“We have moved to a full school day model. This appears to suit our families better.”* (Kindergarten management, Kauri)

*“Parents opted for the longer hours and stayed at a full-day service.”* (Kindergarten management, Pōhutukawa)

Education and care centre and Pasifika centre managers reported no impact of 20 hours ECE on hours. Half the kindergartens and one of the two home-based services had increased the hours; the rest reported no change. One playcentre increased its hours and one reduced its hours; the rest reported no change.

Kindergartens were most likely to have lengthened the session times to more than four hours, moved to one full day (school day) or offered a mix of sessional and full day. Five of the eight kindergartens had made changes and one kindergarten management that had not changed its hours said moving to a six-hour session was a strong possibility in 2010.

The main reasons kindergarten managers gave for change were to access more funding and that they were better able to meet community needs:

*“One and a quarter hours per week enabled us to have an all-day licence = more funding.”*

*“We changed to 6-hour sessions to cater for our community needs.”*

*“8.15–2.45 full day. 8.15–12.30 sessional. This move was to access more funding from the Ministry of Ed, and our families wanted it.”*

*“Six-hour sessions have been included with 3-hour sessions being available in the morning and afternoon sessions.”*

An education and care centre also changed its sessional hours to make free ECE ‘work’ for the centre.

*“We stopped providing half days. We now have two sessions: 8.30–3.30/7.30–5.30 to enable 20 hours to work for our centre.”*

More places or no change was the common enrolment pattern for teacher-led services. Playcentres had varying patterns: one reported more places, two fewer places and three no change.

20 hours ECE has made many teacher-led services, especially kindergartens, more financially sustainable according to managers. Most playcentres reported no change (one stated it was more financially sustainable; one less).

**Table 28: Impact of 20 hours ECE on financial sustainability by service type (n=32)**

Financial sustainability	Education & care (n=12)	Home-based (n=2)	Kindergarten (n=8)	Pasifika (n=2)	Playcentre (n=8)	Total (n=32)
More financially sustainable	5	1	7	1	1	15
No change	5				6	11
Less financially sustainable		1	1	1	1	4
No response	2					2

The reasons for greater financial sustainability were the amount of money available and the changes made by some services, especially kindergartens, from a sessional to a full-day licence.

Comments by managers about 20 hours ECE were mainly positive and related to greater resources, greater stability of children, and support for families.

*“Great impact on the centre’s financial resources—no fees (additional) charged at this centre—all families on benefit—20 free has made a huge difference to our financial status.”* (Education and care manager, Pōhutukawa).

Some managers stated that children’s attendance now matched the 20 hours ECE that was offered.

*“Children who traditionally did 8-hour days 2 days each week are now doing 6-hour days 3–4 days each week. Outstanding fees have dropped.”* (Education and care centre, Karaka)

*“It has increased the roll and the number of hours children attend. A lot of families were just 3 mornings a week but now more are liking their children to attend all day—3 and 4 year olds—and use up nearly all their 20 hours.”* (Education and care centre, Tōtara)

But managers stated that parents did not necessarily get the hours they wanted:

*“People with existing bookings assumed they could increase their bookings to the ‘20’ hours—when actually there was no new space available.”* (Education and care centre, Rātā).

In response to an open question, only a few managers wrote about issues concerning 20 hours ECE. These were about the clarity of MOE information for parents and services, staffing changes, funding levels, the age at which 20 hours ECE is available and loss of children to other services.

**Table 29: Issues about 20 hours ECE expressed by some managers (n=6)**

Issue	Manager viewpoint
Information	Parents really not sure how 20 hours works. (Education and care, Kōwhai) Attestation forms not user friendly. (Kindergarten, Karaka) Need to get correct information. (Pasifika, Pōhutukawa)
Staffing	We are now a mixed age session and this has required self-reviews/meetings to amend our teaching practice and routines to reflect this. (Kindergarten, Nīkau) Competition from other ECE providers. Increase in part-time positions, interest in part-time positions can be a challenge at times especially for 16-hour or 24-hour positions. (Education and care, Tōtara)
Funding levels	Insufficient funding for 20 hours ECE to cover overheads. (Home-based, Kōwhai) Need to get funds for the rest. (Pasifika, Pōhutukawa)
Age at which available	For children who are low vision it is often the case that neural pathways may be further developed and strengthened. Strategies to achieve this are best used and practiced in the first three years. Development lessens after this window of opportunity. (Early intervention centre, Kōwhai)
Loss to other services	Impact of 20 free hours for our Association is that families are choosing daycares to ‘drop off’ children. It is understood for working parents, however basic parenting skills are being lost or moved to the daycares and caregivers/parents are seen as unskilled. Playcentre is becoming a hard place to be as adults must accompany their child/ren. 20 free hours has allowed some parents to hand the upbringing of their child to others. (Playcentre, Kauri)

### *20 hours ECE* and parental decision to participate in ECE

Most of the parents with a three- or four-year-old (87%) stated that they were participating in an ECE service that offered *20 hours ECE*. Those who were not were playcentre parents or did not know whether or not their service offered *20 hours ECE*. More parents from low-income families (9%, compared with 4% overall) did not know.

*20 hours ECE* appears to have contributed to parental decisions to participate in ECE. Seventeen percent of parents with a three- or four-year-old reported that they decided to send their child to an ECE service because of *20 hours ECE*. More of these were Pasifika parents (27%) and kindergarten parents (22%), compared with 17% of home-based parents and 16% of education and care parents. Enrolment rates for three- or four-year-olds in the wards in the study appear to have increased, but not to this extent. Redefinition of ward boundaries makes it hard to make comparisons with 2006 and 2004.

Low-income families—those with incomes below \$30,000—were the most likely to mark that they decided to send their child to ECE because of *20 hours ECE*. Thirty percent of this group decided on participation because of the *20 hours ECE*. Nevertheless, parents from all income groups appear to have made a decision to participate because of the *20 hours ECE*.

**Table 30: 20 hours ECE and decision to participate in ECE by annual family income (n=559)**

<b>20 hours ECE the reason to send child to ECE</b>	<b>&lt; \$30k (n=106) %</b>	<b>\$30-49k (n=100) %</b>	<b>\$50-69k (n=102) %</b>	<b>\$70-89k (n=93) %</b>	<b>\$90k&gt; (n=95) %</b>	<b>Not sure of income (n=63) %</b>	<b>Total (n=559) %</b>
Yes	30*	17	15	14	9	17	17
No	47	59	66	68	64	59	60
No response	23	24	20	18	26	24	22

\* Denotes a higher percentage of parents than overall total.

A small number of parents (24, 4%) said they changed to a different ECE service, or from using only one service to using two services (10, 1.8%), or from using two services to only one service (three parents) to access *20 hours ECE*.

The most common change was from education and care to kindergarten (25, 4.5%) and from playcentre to kindergarten (14, 2.5%). The change to kindergarten may be reflective of the fact that all kindergartens had taken up *20 hours ECE* compared with 92% of education and care centres and 93% of home-based services at July 2009.

#### *20 hours ECE* and hours of attendance

Ten percent of families (54) said they increased the hours their child attended ECE because of *20 hours ECE*, and 2% (12) reduced the hours. The new hours tended to match the 20 hours available. Average new hours for parents who increased their hours were 20 hours (education and care and home-based) and 21 hours (kindergarten).

#### *20 hours ECE* and parental use of time

Almost half the parents (46%) marked that nothing changed in what they did since their child accessed *20 hours ECE*.

The biggest impact of *20 hours ECE* on what parents do was related to employment patterns/study and to family responsibilities.

Twenty-one percent of parents marked changes in paid employment/study in response to *20 hours ECE*. Seven percent of parents increased their hours of paid employment, 7% started paid employment, and 1% reduced their paid employment hours. Six percent of parents enrolled in training or study. These findings suggest that parents may be either matching their working arrangements to *20 hours ECE* or taking up the opportunity offered by *20 hours ECE* to start paid employment or study.

A moderate percentage increased the time spent on family responsibilities (13%), had more time for unpaid work for the family (8%) or increased the time spent on their own interests (8%).

#### *20 hours ECE* and accessing more than one service

Fourteen percent of parents stated they accessed more than one ECE service to obtain the *20 hours ECE*.

#### Impact of *20 hours ECE* on families

Thirty-six percent of parents with a three- or four-year-old said the family made savings because of *20 hours ECE*. Nearly two-thirds did not respond to this question about savings, many probably because they did not access *20 hours ECE*. Those who did respond all stated that their family had made savings because of *20 hours ECE*.

**Table 31: Weekly family savings made through 20 hours ECE**

Savings per week \$	Education & care (n=202) %	Home-based (n=18) %	Kindergarten (n=269) %	Pasifika (n=11) %	Playcentre (n=59) %	Total (n=559) %
No response	55	50	65	64	98	64
Up to 20	6		15	27	2	10
21 to 40	3		3	9		3
41 to 100	30	17	13			18
100 to 121+	6	33	4			5

Parents were also asked an open question about the difference 20 hours ECE had made for their family. Two hundred and fifty responses were received.

#### *Impact on family finances*

Fifty-two percent (131) of the 250 responses were positive about the impact on family finances.

Most of these parents made reference to difficulties in managing financially without the 20 hours ECE including 20 parents who stated they would not have been able to send their child to an ECE service:

*“It is great because I know my son can still attend without worrying there are unpaid fees that I know I can't afford.”* (Kindergarten parent, Kōwhai)

*“Positive, if I were to pay I wouldn't know how to get the money to pay for it. Depending on how much it costs.”* (Kindergarten parent, Kōwhai)

*“I can't really pay much on [child's] ECE the most I can afford may be about 5 dollars sometime. But when [child] does 20 hours ECE made it easy for me and my family when there is only me on my own.”*  
(Kindergarten parent, Kauri)

*“Our child is able to go to kindy without the pressure of it costing too much.”* (Kindergarten parent, Kauri)

*“I couldn't afford to send him to ECE without the 20 free hours. It would have been frustrating as I would have had to wait for him to get a space at kindy.”* (Education and care parent, Kauri)

*“It is great to know that my child is able to get the education that she needs without having to find the money to pay for it. If I had to pay I would have probably not have taken her to kindy. Living is way too expensive these days.”* (Kindergarten parent, Rimu)

#### *Benefits for family life*

Twelve percent of parents responding commented about wider benefits for family life:

*“More time to support rest of family, husband's job and volunteer at older childrens' school—parent helping. The preschool child is very happy with more hours—more settled. I have time to walk or bike him to/from as less pressure to make most of time. More time to develop my own interests + so happier mother = happy family!!”* (Education and care parent, Rātā)

*“Given my family a sense of belonging, knowing their place where they need to be, and what they need to do daily, because all family members at school, work, kindy daily.”* (Education and care parent, Nīkau)

*“Huge effect! Makes it worthwhile for me to work, which in turns makes me a FAR better mother. BEST thing that ever happened to our family. The 20 free hours also helped us decide to have a second child.”* (Education and care parent, Tōtara)

*“Made it possible for me to have a break and get some time without any of my children as a single parent this is vital.”* (Kindergarten parent, Tōtara)

*“As I have no partner or family in the South Island it has meant this is the first break I have regularly had in 3.5 years! It means I can keep up with other family responsibilities and have some very valuable stress free time to myself. For example I have actually managed to give up smoking now that not all of my energy is taken up with children.”* (Kindergarten parent, Rātā)

### **Employment and study**

Eight percent of parents responding (20) made comments about the 20 hours ECE enabling them to work or study or easing the fee burden while they worked:

*“I was able to earn a little more money working. I have been able to study part-time. I have been able to recover from the birth of my 2nd child and from postnatal depression, it has helped us cope. We couldn't do without it.”* (Education and care parent, Nīkau)

*“It was really hard to pay \$185 per week—now it's \$95 it makes working more affordable.”* (Education and care parent, Nīkau)

*“It has made it affordable for me to work part-time, instead of full-time hours, which would have been more likely to be able to afford childcare overall.”* (Education and care parent, Nīkau)

*“Huge difference. As well have another younger child who we pay for and another on the way. If we had to pay for all to go three days a week it would be debatable as to whether it would be worth my while to be in paid employment.”* (Education and care parent, Rātā)

*“It has given me the opportunity to work between school hours. This would not have been viable without the 20 hrs free.”* (Education and care parent, Karaka)

### **Children's learning and socialisation**

Eight percent of these parents (19) wrote about the value of ECE for children's learning and socialisation:

*“20 hours free ECE means that my son gets to have time away from myself, it keeps him stimulated and I can spend more time with my other 2 children. We could not afford preschool if not for 20 hrs ECE.”* (Education and care parent, Nīkau)

*“Having 2 children under 5 and both at kindergarten having the 20 hrs ECE allows our children to learn, be independent, make friends and socialise. If we had to pay then we would not be able to afford for all this to happen.”* (Kindergarten parent, Tōtara)

*“It has eased the financial pressure as well as enabling my son to get more social skills and be separated from family to transition to school easier.”* (Education and care parent, Nīkau)

*“[Child] gets a break from kids at home can get more attention, [child] learning more things, songs etc, Gets to meet more children, learn to share, I get to meet other parents.”* (Kindergarten parent, Kōwhai)

### *Minimal or no difference*

Seven percent of parents responding (17) commented that 20 hours ECE made minimal difference to them.

*“Minimal difference. My child is doing afternoon kindy, and would have done so if there was a cost.”*  
(Kindergarten parent, Rātā)

*“No difference as would still have enrolled child at this establishment. Would just have to pay more. I guess monetary value saved is a bonus.”* (Education and care parent, Tōtara)

### *Negative comments about fee restructuring and flexibility*

Three negative comments were received about fee restructuring, all from the same private education and care corporate chain in two different localities:

*“This has made no difference to saving. It [is] actually costing us more because our ECE increased their rates. So it is now costing us a lot more—RIDICULOUS!!”* (Education and care parent, Rimu)

*“Nothing as [corporate chain] centres charge \$17 per day and don't let you share your 20 hours with any other ECE. When my daughter was 2 we paid \$22 a day, now 3-yr-olds [with 20 hours ECE] pay \$45 per day. So they bully you into using your ECE 20 hours at [corporate chain] exclusively ....”* (Education and care parent, Rimu)

*Not a lot as the fee structuring changed with the introduction of ECE.”* (Education and care parent, Kōwhai).

One parent was concerned about kindergartens being less flexible:

*“Appears to have made kindergarten (not attending) quite money hungry and less flexible to needs of kids ie. looked at starting our daughter at 3 1/2 years but only for 2/3 days because daughter still likes afternoon sleep. Limited flexibility 3 days or none ‘affects our funding’. Didn't start our daughter as consequence.”*  
(Education and care parent, Pōhutukawa)

## **Government policies: Managers' views of funding initiatives**

We asked managers to comment on the difference each funding initiative had made to their service and the reasons.

### **Equity Funding**

Comments from those receiving Equity Funding were all positive. Equity Funding was mainly used for purchase of resources, improving the environment and for additional staffing. The evaluation of the initial uses and impact of Equity Funding (Mitchell, et al., 2006a) found that spending on such items was able to make a difference to quality.

### **Funding system linked to cost drivers**

There were few comments about this system, which came into effect in 2005. It is possible that managers did not fully understand the wording of the question and would have responded better to a question about the funding subsidy system and an explanation of the changes that occurred in 2005. One manager stated they did not know what it was like before 2005. Positive comments were that additional funding makes a positive difference. One manager thought the change helped low-funded home-based services. One negative comment was that costs are still higher than funding levels. Another negative comment was that it is necessary to spend the funding on paying high wages for qualified teachers to compete with [a corporate provider]. It was stated that employing qualified teachers does not necessarily mean quality.

### **Increases to childcare subsidy rates and eligibility**

The most common view was that the Childcare Subsidy has supported more children from all family types to participate. Four managers stated that it had minimal or no impact on their service. One playcentre manager said it involved too much paper work. One manager questioned its value because it is not linked to improving quality.



## 20 hours ECE

Many positive comments were made about *20 hours ECE*. Comments were

*“Participation had improved (more 3 and 4 year-olds, better attendance patterns, children attending longer and on more days ‘and learning more’).”*

*“Quality had been enhanced through additional funding being used for purchase of resources and to retain staff.”*

*“Kindergartens had restructured, improved ratios, reduced parental fundraising.”*

*“Playcentres looked forward to being eligible.”*

Two negative comments were received: that children left the service to go to ‘daycare’, and that parents wanted more hours but there was a lack of space.

## Government policies: Managers’ views of targeted participation initiatives

### MOE network analysis

This MOE analysis is of the current state of the network of ECE services. It is intended to assist in identifying where investment may be needed in new services and where the existing network is sufficient to meet community needs. MOE facilitators work with communities in areas of low participation to find solutions for access to quality and sustainable ECE.

Several managers regarded MOE’s analysis of network provision as useful in providing valuable information, on the proviso that the analysis is used by managers.

*“Useful tool as part of package of tools. But until the concept of network provision is grasped it is only figures. The actual analysis is useful.”* (Kindergarten, Tōtara).

One manager commented that the analysis does not in itself create places and high waiting lists are still found. Another manager argued that services should be required to show a need before they were able to open.

### Promoting Participation Projects (PPP)

In 2006, consistent positive comments were made by service management who made contact with PPP coordinators. There were further positive comments in 2009 that PPP encouraged families to enrol their child and raised awareness of the value of ECE. A kindergarten in Kōwhai said it had encouraged Māori and Pasifika families to participate in the service. Another Pasifika service in the same locality commented that there were not enough places to take new children and it “just added to the waiting list”.

### MOE advice and support

MOE advice and support had helped one service meet targeted requirements and several commented on a positive relationship with the regional office.

### Provision of space on school grounds

As in 2006, positive comment was made about provision of space on school grounds. In two localities, new services had been built.

## Suggested initiatives

Managers were asked what initiatives (government, community or service own) would help their service increase participation. Four managers stated that extending free ECE provision to younger age groups would help their service increase participation and another stated it was essential to retain current funding. Other suggestions were to offer transport (Pasifika service), support access for rural children (rural kindergarten), provide a family benefit for parents learning alongside their children (playcentre), publish information about the benefits (playcentre), offer parent education (kindergarten) and change hours to better cater for working families.

## To what extent, in what ways and how effectively has the strategic plan increased participation in ECE?

To what extent has the strategic plan increased participation in ECE?

The evaluation design is limited in relation to gauging changes in ECE participation.

- Data on participation was collected from current users of ECE services. Valuable insights into reasons for non-participation could be gained from families not using ECE.
- ECE enrolment figures include children who are using more than one ECE service and who are therefore counted twice. Several studies, including this evaluation, have found around 20% of children use more than one service.
- Ideally, the findings would be considered alongside data on wider patterns that affect ECE service usage, such as parental employment patterns in the study wards. We did not have access to wider information.

Some of the participation initiatives were targeted initiatives that were not used by the services in this study but nevertheless would be expected to impact on participation and provision nationally and within localities where they were implemented. The broadening of the income criteria for the Childcare Subsidy, the new funding system based on cost drivers and the *20 hours ECE* policy were universal initiatives that would be expected to have an impact.

Patterns of change in ECE participation and provision from 2004 to 2006 to 2009 are evident and are reasonably linked to ECE strategic plan initiatives.

Nationally, ECE participation prior to school entry increased from 92.9% in 2004, to 93.4% in 2006 to 93.9 % in 2009. Average weekly hours of attendance in an ECE service also increased from 16 hours (2004) to 16.9 hours (2006) to 19.5 hours (2009).

Data on the eight wards in the study showed shifts in provision and participation:

- More new services opened between 2006 and 2009, especially in localities with PPP.
- Enrolments increased from 2006 to 2009 for every age group except five-year-olds (who do not traditionally attend ECE).
- Overall children in the study wards were enrolled for longer hours in 2009 than in 2006, reflecting national trends. Enrolment hours for three- and four-year-olds in the study locations generally increased most for categories of 30 hours or less per week. Perhaps this reflects enrolments in *20 Hours ECE*, although there were increases of use of longer hours as well. Locations where high numbers of new services had opened had high percentages of children enrolled in services for between 9 to 30 hours.

*Duration of participation*, measured by months of participation as a proportion of age and starting age, remained much the same.

- Months of participation were on average about half the child's age. In 2009, differences associated with service type tended to be less pronounced than in 2006 and months of participation in all services, except playcentre, were closer to the average.
- The average starting age was around two years in each year of the evaluation. In all services except kindergartens, children on average started before age two years.

This starting age and duration should offer benefits to children's learning, development and well-being if the services are good quality.

*Intensity of participation* (hours of weekly attendance) remained at the same level in 2004 and 2006 at 10–15 hours per week, and increased to 17 hours in 2009. The 2009 hours are within the range of 15–20 hours for children over two suggested by Loeb et al. (2005) as affording good opportunity for cognitive gain. In 2009, fewer children were attending ECE for a few hours per week.

Overall, *accessibility* remained much the same between 2004 and 2006 and improved in 2009. The main parental need for more hours reduced slightly and a lower proportion of parents stated that the service did not provide the hours wanted. This suggests service hours were becoming more aligned to parental needs. Cost and availability of a place were less of barriers in 2009. There was a slight decrease in the percentage of children on waiting lists.

ECE services were much more *affordable* in 2009. Eighty percent of parents found their service 'affordable' or 'easily affordable' in 2009, compared with 66% in 2006 and 72% in 2004. This was true despite the increased hours being used by parents in 2009.

Services had become more *sustainable* in 2009. Spare capacity had reduced somewhat from 2006 and there had been a reduction in the length of time services had spare capacity. The main sustainability issues in 2004 and 2006 were financial sustainability and staffing sustainability. Financial sustainability had improved in 2009 and predicted difficulties in recruiting sufficient qualified teachers/educators had reduced significantly.

ECE services were rated more highly on their *responsiveness* to parents in 2009. Parents' ratings of how well the ECE service met their needs were ranked in the same order and meeting similar high levels of satisfaction in 2004, 2006 and 2009. Levels of overall parental satisfaction were high in all three years, and 'very good' satisfaction rose slightly over the years of the evaluation (64% in 2004, 67% in 2006 and 70% in 2009).

#### In what ways has the strategic plan increased participation in ECE?

At a locality level, the targeted participation initiatives undertaken by the Ministry of Education were associated with increased provision of new services and increased participation in the localities in which they had been implemented. There was some matching of hours of attendance of three- and four-year-olds with *20 hours ECE* and an increase in enrolments for this age group.

Service level data indicate that the policy having the greatest impact on the number of children attending, their hours of participation, and parental decisions about participation was *20 hours ECE*.

- *20 hours ECE* was associated with increases in the *number* of three- and four-year-olds attending teacher-led ECE services. Managers attributed the enrolment increases to the services being more affordable.

- Over half the sessional teacher-led services had increased the *hours* for children to attend to access more funding and better meet community needs. The number of hours per week that three- to four-year-old children attended had increased in line with new operating times. The longer time children are attending is likely to benefit children.
- *20 hours ECE* appears to have contributed to parental decisions to participate in ECE. Seventeen percent of all parents and 30% of low-income parents reported that they decided to participate in ECE because of the *20 hours ECE* policy.

Improvements in the levels of funding through the funding policies (Childcare Subsidy, funding formula linked to cost drivers and *20 hours ECE*) were associated with services having greater financial sustainability and costs being much more affordable for families in 2009.

Targeted participation initiatives and MOE advice and support had helped one service to attract Māori and Pasifika families and another had been helped to become more sustainable in terms of staffing.

#### How effectively has the strategic plan increased participation in ECE?

The Stage 1 evaluation report noted that it was very early days to be evaluating the effectiveness of the strategic plan in relation to increasing participation in ECE. Many of the initiatives were new. By 2009, positive changes were occurring in all the indicators of participation that could reasonably be linked to strategic plan initiatives.

The funding initiatives have enabled some kindergartens and education and care centres to change from sessional to school day or full-day provision, which suits many current users. These have encouraged a better alignment between parent needs and the times that these services operate. Nevertheless, the mismatch between parental needs and hours has been an ongoing issue for families for over a decade (Department of Labour and National Advisory Council on the Employment of Women, 1999; Mitchell, 2008; Mitchell & Brooking, 2007; Mitchell & Hodgen, 2008; Robertson, 2007), with many parents wanting just a few more hours per week or some flexibility. This has not been resolved and would require some closer responsiveness of services to the contexts of families' lives.

The funding initiatives have provided some targeting to families through the Childcare Subsidy and for particular communities through Equity Funding, within a predominantly universal funding system. These have resulted in ECE being more affordable for all families on a more equitable basis. The difficulties in affording the cost of ECE that were experienced by lower-income families in 2004 have been substantively reduced. The benefits of ECE provision for all children, not just those who are disadvantaged, have been clearly demonstrated in the EPPE project (Sylva et al., 2010).

According to parents, the *20 hours ECE* policy has contributed to parental decisions to participate in ECE and encouraged more regular and sustained attendance of three- and four-year-olds. Regular participation in good quality ECE for two or three years before starting school affords opportunity for cognitive and social gains. New Zealand's *20 hours ECE* policy is consistent with moves in many OECD countries to provide at least two years free provision before children start school (OECD, 2006). Many countries guarantee children a place in ECE.

Overall, the sustainability of services in terms of enrolments, staffing and finances has been enhanced. Sustainability is important because of the negative consequences of closure of ECE services for families, children and staff, including disruptions in child attachments. Kershaw, Forer and Goelman's (2005) study of licensed childcare service closure have linked stability of childcare facilities in British Columbia, Canada, to public investment in operating funding and particularly to staff remuneration levels. It seems likely that the increased funding provided to ECE services and focus on employment of registered teachers and pay parity in teacher-led services through the strategic plan initiatives, has contributed to greater sustainability on each of the three measures. The exceptions are Pasifika services. Two of five in

the original sample opted out of the evaluation and one closed because it was in financial debt. Issues for these Pasifika services are examined in a separate report (Mitchell & Mara, In preparation).

The main need emerging from the analysis seems to be for places to be available in appropriate services where and when they are needed. The new “intensive community participation projects, improving the supply of responsive high quality ECE [and] redesigning existing initiatives” (Ministry of Education, 2010) may help to address this need, as well as meeting the aspirations and needs of families who are not currently participating in ECE.

Government expenditure on ECE rose during the implementation of the strategic plan from \$439,187,000 in 2003/03 to \$1,186,746,000 in 2008/9. These levels of funding have contributed to gains for the services and families accessing them.



## 4. Improving the quality of education

By 2009, many of the strategic plan initiatives aimed at improving quality that had been relatively new or under development in 2006, were well established (Appendix A describes strategic plan actions). The new funding system and funding rates had been in place from 1 April 2005 and *20 hours free ECE* was implemented in 2007. Assessment exemplars, the accompanying professional development, and the ICT strategy were published in 2005. Further assessment exemplars were published in 2007 and 2009 and a pilot programme to explore the benefits of ICT was started in 2006. The self-review guidelines, in draft when the Stage 1 evaluation data was collected, were published in 2006. Policies established earlier, in 2002, were the targets and initiatives for registered teachers in teacher-led services, the establishment of COIs, and the provision of Equity Funding. By 2009, two more rounds of COIs had completed their work and disseminated findings.

The May 2009 Government Budget made changes to some of these policies but at the time of data collection these would not have had significant impact. Thus we would expect to see change in levels of quality and intermediate outcomes over the rollout of the strategic plan.

### The evaluation question

*To what extent, in what ways, and how effectively has the plan increased the quality of ECE?*

In this chapter, we draw on data obtained from the 32 services in both the Stage 1 and Stage 2 study to analyse quality changes from 2004 to 2006 to 2009.

Service-level data on the quality of ECE service provision came from field researcher observation-based ratings, using a structured measure of aspects of process quality. Process quality is described as “those aspects of an early childhood education program which children actually experience” (Smith et al., 2000). It refers to the environment and the interactions and relationships that occur in an early childhood education setting that shape children’s experiences. The measure of dimensions of ECE quality, the NZCER/TKRNT process quality rating scale, included items that have been identified as making a long-term contribution to positive outcomes for children (Siraj-Blatchford et al., 2003; Wylie & Hodgen, 2007; Wylie, Hodgen, Ferral, & Thompson, 2006; Wylie & Thompson, 2003; Wylie, Thompson, & Kerslake Hendricks, 1996). The quality rating scale has 30 items and is included as Appendix B. Ratings on each item were completed by trained field researchers after they had observed the service for an entire half day, on two separate occasions, usually at least a week apart.

The ECE strategic plan intervention logic model identified six intermediate outcomes: ‘ECE services meet cultural and language aspirations’; ‘More registered teachers in ECE’; ‘Quality in parent-led services’; ‘Reduced ratios and group size’, ‘*Te Whāriki* effectively implemented’; and ‘Quality teaching and learning practices’, that were intended to contribute to the outcome ‘Improved quality of ECE’. We developed indicators for each of these outcomes and a system to rate these as ‘very good’, ‘good’, ‘fair’, and ‘poor’ (Appendix C has details).

Some intermediate outcome indicators were rated from data gathered from the MOE RS61 July staff return from licensed ECE services. Others were from the observation-based ratings, teacher interviews, and parent questionnaire data. Management questionnaires, teacher interviews and questionnaires provided information on use of MOE strategic plan incentives, resources, and professional development.

The number of services with in-depth data in the three evaluation years was 32. Eight kōhanga reo, three Pasifika services, a puna, a playgroup and a home-based service did not participate in 2009 and are excluded from the analysis. The number of parents from the 32 services was 690 in 2004, 628 in 2006 and 595 in 2009. The service-level data sources for each quality dimension and intermediate outcome are set out in Table 32 below.

**Table 32: Service-level data sources in 2004, 2006 and 2009**

Dimension	Indicators
Quality of ECE service provision	Adults responsive (Field researcher rating). Adults extend children's learning (Field researcher rating). Children complete work and concentrate (Field researcher rating). Children support, cooperate, and co-construct learning (Field researcher rating). Inclusion (Field researcher rating). Education programme content (Field researcher rating). Resources and environment (Field researcher rating). Overall quality (Combining average ratings on indicators above).
Intermediate outcome	Indicators
ECE services meet cultural and language aspirations	Parents' rating of how well service meets cultural aspirations (Parent questionnaire). Parents' language and culture included in ECE curriculum, parents contribute (Parent questionnaire). Rating of teacher explanation of how the service meets parents' and whānau language and cultural aspirations (Teacher questionnaire). Rating of monitoring and evaluation of service provisions for parents/families of diverse ethnic backgrounds (management questionnaire). Tikanga Māori and te reo Māori are evident within the education programme (Field researcher rating). Responsiveness to different cultures and heritages of children (Field researcher rating). Inclusiveness of setting (Field researcher rating).
More registered teachers in ECE	Percentage of teachers in teacher-led services holding NZTC approved qualifications and being registered teachers, and educators in playcentre holding higher-level playcentre qualifications (RS61).
Quality in parent-led services	Compared parent/whānau-led services and teacher-led services on intermediate outcomes.
Reduced ratios and group size	Observed ratios and group size (Field researcher rating).
<i>Te Whāriki</i> effectively implemented	Indicator rating for understanding and use of <i>Te Whāriki</i> (Ratings from teacher interview data). Indicator rating for implementing a bicultural curriculum (Ratings from teacher interview data).
Quality teaching and learning practices	Indicator ratings of assessment, planning, programme evaluation, self-review (Ratings from teacher interview data).

## Dimensions of quality

The dimensions used to examine ECE service quality were:

- *Adults are responsive and guide children.* A service that received the highest rating for this aspect of quality would have teachers/educators who responded quickly and directly to children, moving among children to encourage their involvement and participating in their play. They would use positive reinforcement, guidance and explanation as guidance techniques.
- *Adults extend children's learning.* A service that received the highest rating for this aspect of quality would have adults who take advantage of opportunities to extend children's thinking by asking open-ended questions, scaffolding and co-constructing learning. Sustained adult:child conversations and joint problem-solving would be observed.



- *Children complete work and concentrate.* In a service with the highest rating for this aspect, children would have control over when activities are completed and could select their own activities from a variety of learning areas. Children would concentrate for sustained periods of time in learning episodes and persevere in the face of challenges. Routines would not cut across learning episodes.
- *Children cooperate and co-construct learning.* In a service with the highest rating for this aspect, children would be seen to share, extend comfort to other children, offer to help, support and cooperate with each other. Children would use negotiation to solve interpersonal problems. They would initiate learning experiences, scaffold and co-construct learning with other children.
- *Inclusion.* In a service that received the highest rating, adults would give equitable attention to children of all ages and ethnicities. They would make positive comments to children that reinforce the child and their relationships with others and address discriminatory behaviour and negative attitudes. Stereotypical groupings would not be found. Māori language and culture would form an essential part of the regular programme. Resources and practices would reflect the culture, language, values and beliefs of the children at the early childhood education service.
- *Education programme content.* A service that received the highest rating would have plenty of opportunities for children to experience a print-saturated environment that encourages print awareness. Stories would be read, told and shared and children encouraged to explore thoughts, experiences and ideas through using symbols. Children would engage in child-initiated creative play, such as singing, drama, making music, and there would be evidence of creativity and artwork. Adults would use a range of mathematical ideas and language and encourage mathematics for a variety of purposes. Children would be seen to problem-solve and experiment. Te reo and tikanga Māori would form an essential part of the regular programme.
- *ECE resources.* A service that received the highest rating would have plenty of equipment and activities to encourage fine motor skills and gross motor skills. There would be enough age-appropriate resources to avoid problems of waiting and competing for scarce resources. Space would be provided for children to explore the physical world, with varied surfaces, levels and slopes.
- *Overall quality.* A service that received the highest combined rating would have ‘very good’ ratings on the above indicators.

The early childhood education services were assessed on dimensions of process quality twice on two visits in each of the years 2004, 2006 and 2009. Use of this scale enabled us to measure change over time for these dimensions, as well as overall quality, show how dimensions of quality relate to overall quality and relate levels of process quality and changes to it, to intermediate outcomes of the strategic plan, eg., more registered teachers in ECE, quality teaching and learning practices, and strategic plan actions. This enabled us to track whether there had been improvements in the quality of service provision over the seven years of the rollout of the ECE strategic plan, improvements which research has indicated are consistent with improved outcomes for children. We could also indicate reasons for any change in quality.

## **Levels of quality and patterns of change 2004 to 2006 to 2009**

### **Overall quality of ECE services in 2009**

By 2009, overall quality was rated ‘very good’ in eight services (25%) and rated ‘good’ in 13 services (41%). This means that the kinds of interactions, child engagement, inclusive practice, educational programme content, and resources that are associated with positive learning and developmental outcomes for children were observed at least some or most of the time in two-thirds of the ECE services in the study over our two visits. Overall quality was ‘fair’ in ten services (31%) and close to ‘poor’ in one service in 2009.

Levels of quality in over 80% of the services were either ‘good’ or ‘very good’ for the three dimensions, ‘Adults are responsive and guide children’, ‘Children complete work and concentrate’, and ‘Resources’.

Seventy-two percent of services had ‘good’ or ‘very good’ ratings on the dimension ‘ECE services are inclusive’.

Around half the services had ‘fair’ or ‘poor’ ratings on the three dimensions ‘Children support, cooperate, and co-construct learning’, ‘Adults extend children’s learning’, and ‘Education programme content’. Services also had low ratings on these dimensions in 2004 and 2006.

**Table 33: 2009 levels of service performance on quality dimensions**

Dimension	‘very good’ n (%)	‘good’ n (%)	‘fair’ n (%)	‘poor’ n (%)
Resources (n=32)	17 (53)	10 (31)	5 (16)	
Children complete work and concentrate (n=32)	16 (50)	10 (31)	6 (19)	
Adults responsive (n=32)	12 (38)	15 (47)	4 (12)	1 (3)
Inclusion (n=32)	6 (19)	17 (53)	9 (28)	
Children cooperate and co-construct learning (n=32)	7 (22)	9 (28)	12 (38)	4 (12)
Adults extend children’s learning (n=32)	7 (22)	9 (28)	12 (38)	4 (12)
Education programme content (n=32)	5 (16)	9 (28)	15 (47)	3 (9)
Overall quality (n=32)	8 (25)	15 (47)	9 (28)	

The lower-rated dimensions are important for children’s cognitive development. Evidence from the *Competent Children, Competent Learners* project in Aotearoa New Zealand (eg., Wylie & Hodgen, 2007) and the large-scale *Effective Provision of Preschool and Primary Education* project (EPPE) in England and Northern Ireland (Siraj-Blatchford, 2004, 2010; Siraj-Blatchford et al., 2003) found that adult:child interactions, such as ‘sustained shared thinking’ and open-ended questioning were linked with children’s competencies in later schooling. Such interactions require children to take a problem-solving approach and think for themselves. The EPPE project found that in the most effective preschool settings, neither adult-initiated nor child-initiated activities dominated. The EPPE authors argued that adults therefore need to create opportunities to extend child-initiated play as well as adult-initiated group work, because of the importance of each for promoting learning. The EPPE project also found that practitioners need to understand the curriculum area being addressed. In the *Competent Children, Competent Learners* study exposure to the written word in ECE settings, where print is seen as enjoyable and meaningful, also made a continuing contribution to children’s competencies at ages 10, 12, 14, and 16 years.

Cognitively challenging adult:child interactions may be harder to initiate and sustain. The EPPE study found that open-ended questions made up only 5.1% of the questioning used in ‘excellent’ settings in their case studies and that

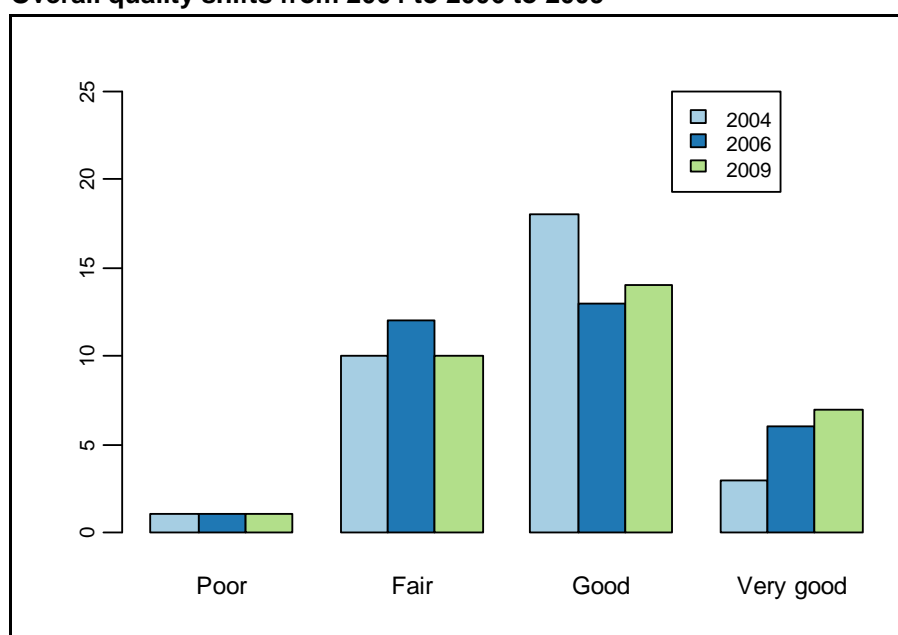
'sustained shared thinking' did not happen very frequently. These are aspects of the quality dimension 'Adults extend children's learning'.

### *Changes in quality from 2004 to 2006 to 2009*

Figure 3 below compares services' overall quality ratings in 2004, 2006 and 2009 to see whether overall quality ratings changed over the three years. A rating of 4-5 is 'very good', 3-3.9 'good', 2-2.9 'fair', and less than 2 'poor'.

Slight improvements occurred over time in ratings of overall quality but only in the more highly rated services. More services were rated as 'very good' quality in 2009 (eight services) than in 2006 (seven services) and 2004 (five services). Fewer services were rated as 'fair' or 'poor' quality in 2009 (nine services) than 2006 (11 services) but the same number as 2004 (nine services). Looking at individual services, the shifts in quality that occurred were to an adjacent level of quality, except for two outliers, and were not large.

**Figure 3: Overall quality shifts from 2004 to 2006 to 2009**



Quality was being sustained or strengthened from 2006 to 2009 for a majority of the services in the sample. Comparing 2009 to 2006, most services (22, 69%) retained 'good' or 'very good' ratings or went up to a 'good' or 'very good' level. Six services (19%) had higher ratings and six services (19%) retained 'very good' levels, so could not have improved their rating. Ten services (31%) retained 'good' quality ratings. On the whole, the variable shifts in ratings, some up and some down, that we observed in 2006, were replaced in 2009 with a positive pattern of consolidation or gain.

Four services (13%) had lower ratings in 2009, however. One of these went from a 'very good' rating in 2006 to a 'good' rating in 2009 and three went from 'good' ratings in 2006 to 'fair' ratings in 2009. Six services remained as 'fair' or 'poor' quality in 2006 and 2009 and of these, four were also rated 'fair' or 'poor' in 2004. Three of these were private all-day education and care centres, all from the same corporate chain but in different localities. They all catered for under-two-year-olds. The fourth was a playcentre.

The two Pasifika services were rated as being 'good' quality in 2004 but 'fair' in 2006 and 2009.

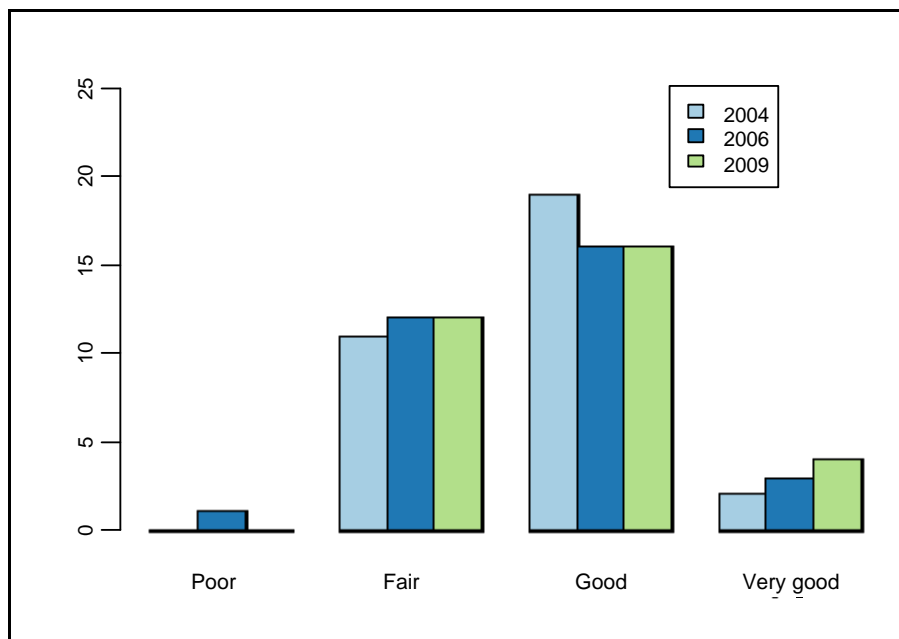
Distinctive patterns of overall quality levels and shifts were associated with service type. Kindergartens all had consistently ‘very good’ or ‘good’ levels of overall quality in 2004, 2006 and 2009. The most variable in quality in 2009 were education and care centres.

**Table 34: Overall quality levels by service type in 2009**

Service type	Very good	Good	Fair	Poor
Kindergarten (n=8)	3	5		
Education and care (n=12)	2	5	5	
Playcentre (n=8)	3	4	1	
Pasifika (n=2)			2	
Home-based (n=2)		1	1	

There were no substantive shifts in dimensions of quality over time except for the dimension ‘inclusion’, which improved slightly.

**Figure 4: Shifts in the dimension ‘Inclusion’ from 2004 to 2006 to 2009**



**Analysis of levels and shifts in overall quality from 2004 to 2006 to 2009 for services, children and localities**

In a second level of analysis, we examined levels and shifts in overall quality from 2004 to 2006 to 2009, in relation to characteristics of services and children to understand why some services’ quality improved, some declined and some remained low. We report only those characteristics (from all the characteristics analysed for this evaluation) that showed an association with differences in quality levels or patterns of change over the time period. Differences in patterns were considered in relation to strategic plan actions and supports and barriers to change.

Seventeen services (53%) had consistently ‘good’ or ‘very good’ ratings of overall quality over the three evaluation years. Five services moved up from ‘fair’ levels to ‘good’ levels. Two services were variable, dipping to a ‘fair’ level in 2006 and regaining a ‘good’ level in 2009. This means that over the period of the evaluation 24 services (75%) either sustained at least good quality levels or moved to these by 2009.

The services that are of most concern are the three education and care centres and one playcentre that remained as ‘fair’ over these evaluation years. In these services, the positive interactions and environment that contribute to children’s learning were observed infrequently. The downwards trajectory of two education and care and two Pasifika services is also problematic in an environment where the strategic plan initiatives are offering much to support quality. We analyse these outliers at the end of this section as a way to explore factors associated with individual services performing at high or low levels and changing levels. The sustainability of Pasifika services is discussed in a separate report (Mitchell & Mara, In preparation).

**Table 35: Service types and quality levels and shifts in overall quality 2004 to 2006 to 2009**

Service type	Positive shifts to ‘good’ level (n=5)	Negative shifts to ‘fair’ level (n=4)	Consistently ‘very good’ or ‘good’ levels (n=17)	Consistently ‘fair’ or ‘poor’ levels (n=4)	Variable levels (n=2)
Education and care	2	2	4	3	1
Kindergarten			8		
Playcentre	2		5	1	
Pasifika		2			
Home-based	1				1

### *Service characteristics*

Distinctive patterns of overall quality levels and shifts were associated with service type but not with whether the services were teacher-led or parent/whānau-led or whether they were sessional or full-day. All the eight kindergartens were rated as ‘good’ or ‘very good’ in overall quality in each year of the evaluation. Education and care and home-based services were the most variable. The two Pasifika services were rated ‘fair’ in 2006 from ‘good’ levels in 2004 and remained ‘fair’ in 2009.

Community-based services were rated more highly (‘good’ levels) on overall quality in each year of the evaluation than private services (‘fair’ levels).

### *Child characteristics*

Two of the four child characteristics we analysed (proportion of children attending the service who are aged under-two-year-olds and the service receipt of Equity Funding) were linked to patterns of overall quality level or shifts in quality. There was no link with the proportion of Māori children attending the ECE service or the proportion of Pasifika children attending the ECE service.

*Services with over 20% of children under two years old* (n=17) were the only services with ‘poor’ or ‘fair’ levels of quality in every year of the evaluation (four services) and the only services that went down to ‘fair’ levels in 2009 (four services).

Nevertheless, six services with high percentages of under-two year-olds were rated as being of ‘very good’ or ‘good’ overall quality in all three evaluation years, and three services were rated as moving to ‘good’ overall quality in 2009, indicating that it is possible to cater very well in a pedagogical sense, for this age group.

Two factors stood out as differentiating the under-two services with ‘very good’ and ‘good’ overall quality ratings from the under-two services with ‘poor’ or ‘fair’ quality ratings: adult:child ratios, and relationships with parents:

- Six of the seven services with ‘poor’ or ‘fair’ overall quality ratings in 2009 had observed ratios of 1:4 (adult:child) or higher (more children to adults) compared with two of the nine services that had ‘good’ or

‘very good’ overall quality ratings in 2009. These had ratios ranging from 1:3 to 1:1. This was similar to findings in 2006.

- Four of the six ‘good’ or ‘very good’ quality services with over 20% under-two-year-olds in each evaluation year were rated as ‘very good’ in their relationships with parents. (The other two were rated ‘good’ and ‘fair’.) None of the poorly rated centres with under-two-year-olds in each evaluation year had ‘very good’ relationships with parents. One was rated ‘good’, two were rated ‘fair’ and one ‘poor’. The rating for relationships with parents was formed from parent responses to questions about the usefulness of teacher information about the child’s learning, the child’s happiness, and the curriculum, whether the parent talked to teachers about home, their satisfaction with information about their child, and the parent’s involvement in assessment and planning.

*Services receiving Equity Funding* (n=13)<sup>12</sup> were more likely to be rated as ‘good’ or ‘very good’ in every year (10 services) or to make positive shifts to ‘very good’ in 2009 (one service). This represented 85% of these 13 services compared with 50% of the 12 services not receiving Equity Funding (excluding seven private services that are not eligible for Equity Funding).

In 2006 and 2009, managers commented that Equity Funding had benefited the service. Equity Funding expenditure was on curriculum resources, staffing (teacher aides, administrative assistance, relievers), specialist equipment (for the Early Intervention centre), subsidising excursions, and language support (aspects that would be expected to improve quality).

An evaluation of initial uses and impact of Equity Funding (Mitchell, et al., 2006a) showed Equity Funding was spent on similar items. It was used to improve staffing (eg, professional development, training and staffing levels), curriculum resources and experiences, and teaching and learning resources. Expenditure on these aspects was associated with improvements in quality or maintenance of high quality levels.

#### Factors associated with individual services performing at high and low levels of quality

In order to understand more about factors associated with individual services performing at high or low levels on indicators of quality, the individual services were sorted into three groups in relation to their performance on the indicators of quality:

- Services rated as consistently ‘very good’ quality across all three years of the evaluation (2004, 2006 and 2009)
- Services rated as ‘poor’ or ‘fair’ quality across all three years of the evaluation
- Services on a marked change trajectory of two or more quality ratings across all three years of the evaluation (upwards quality or downwards quality).

We chose the overall quality rating as the reference point for the categorisation since this is linked to the strategic plan goal of children developing strong learning foundations. We examined the patterns of association between levels of quality and each intermediate outcome, and aspects of service resources, processes and relationships.

The categorisation resulted in our identification of the following outlier services:

- Consistently ‘very good’ quality: three kindergartens

<sup>12</sup> Indicating that children in these services were from low-income homes, children had special educational needs, or were from non-English speaking backgrounds, services were offering ECE in a language other than English, or services were isolated.

- Consistently 'fair' or 'poor' quality: three education and care centres and one playcentre
- Downwards trajectory: one education and care centre.

The following discussion outlines the characteristics of these outlier services.

### *Consistently 'very good' quality services*

The three services rated as 'very good' quality in each of the evaluation years were kindergartens. Two were in main urban locations and one was in a minor urban location. They were managed by different kindergarten associations. All catered for children over two years old. In two kindergartens children were mainly Pākehā/European. In the third, 42% of children were Māori. In one (kindergarten B) some children were able to stay for a school day.

All were sessional kindergartens but operating one or two longer sessions (over four hours) per week.

These kindergartens had 'very good' ratings on overall quality and 'very good' ratings on almost every dimension in each year. If not 'very good', the ratings were 'good'. Programmes were tailored to the interests and needs of the children in each kindergarten. Teachers were responsive to children and extended their learning and this was evident in the children's high levels of persistence and engagement in their play, with high levels of co-construction apparent. For example, in one kindergarten a group of children had taken the initiative to make their own pizzas. A teacher was making suggestions but not doing the work for these children. Another child was designing her own costume to sew on the kindergarten sewing machine. Children cooperated in many ways, invited children into their play and led Māori waiata with confidence.

Processes of assessment and planning were rated as 'very good' or 'good' in every year. Ratings of evaluation and self-review were more variable over the period but none were rated as 'poor' and each kindergarten achieved a 'good' or 'very good' rating in 2006 and 2009.

Teachers' understanding of *Te Whāriki* was 'very good' in one kindergarten in every year of the evaluation. This kindergarten was a Centre of Innovation and had participated in *The Early Childhood Exemplar Project*. It had 'very good' ratings for implementing a bicultural curriculum and had the highest Māori roll. The other two kindergartens had 'good' ratings for teachers' understanding of *Te Whāriki* in every year. Ratings of implementing a bicultural curriculum were mixed – 'fair' in one year for each and 'good' in the other two.

The kindergartens had 100% registered teachers in each year, according to MOE RS61 returns, except for one kindergarten that had 75% registered teachers in 2009. At the time of data collection, this kindergarten had 100% registered teachers. Some teachers were in the process of working towards degrees or postgraduate qualifications in education.

**Table 36: Percentage of registered teachers\* in 2004, 2006, and 2009 in services rated consistently 'very good' quality**

Service	2004	2006	2009	Difficulties in accessing qualified teachers in 2009	How problems were resolved in 2009
Kindergarten A	100	100	100	Difficulty in recruiting qualified teachers because kindergartens moving to all-day licences	Pays students to work over entitlement. Offers 6 months work for teachers while applying for jobs.
Kindergarten B	100	100	100	None	
Kindergarten C	100	100	100**	Difficulty in accessing qualified relievers	Predicts problems when new kindergarten opens in small rural town. Not doing anything yet

\* Since weekly RS61 figures are used, the percentages shown are only proxies. For example, a service may have two teacher positions, with one filled by a full-time registered teacher and the other by two part-time registered teachers. The RS61 weekly figures would show 33% of teachers registered, whereas the service actually had 50% at one time.

\*\*This kindergarten had 75% registered teachers according to MOE RS61 returns but 100% at the time of data collection.

Observed staff:child ratios varied across the evaluation years. Kindergarten B, which had some children for a school day, had the best ratios.

**Table 37: Average observed staff:child ratios in 2004, 2006, and 2009 in services rated consistently 'very good' quality**

Service	2004	2006	2009	Difficulties in meeting regulations for ratios in 2009
Kindergarten A	1:6.1	1:10.2	1:11.5	Sometimes struggle Relocates teacher from another kindergarten
Kindergarten B	1:5.1	1:4.7	1:5	None
Kindergarten C	1:6.3	1:9.7	1:9.6	None

All the kindergarten teachers had plentiful professional development on a range of topics, supporting teaching and learning practices and extending knowledge in a variety of areas to support the curriculum. For example, professional development included ICT, art, music, te reo, biculturalism, nutrition, brain development, communities of learners, transition to school, leadership, planning and assessment. Professional development included workshops (one day or less), in-centre professional development with all staff, cluster groups, and conferences.

Non-contact time was 7-10 hours per week and staff meetings were held weekly or fortnightly. Teachers were encouraged to engage in professional development and funded and given time to do so. There was an expectation that they would do so from their respective associations. Teacher comments reflected that professional development was generally perceived as extremely valuable in enabling them to focus on and improve practice. In addition to professional development, teachers expressed their interest in keeping current in terms of ECE. For example, current and past Centres of Innovation were said to have inspired their practice. Teachers used MOE websites (Te Kete Ipurangi and the Ministry ECE Lead websites) and the Education Gazette to keep up-to-date on current programmes and events relating to practice.

Families and communities played a key role as members of these kindergartens. For example, a kindergarten planned to change hours to support community needs, families participated in assessment and planning and parents felt welcome to stay and participate in sessions.

The main things parents liked best about these kindergartens were: that the environment was welcoming and friendly, that their child was learning/growing in confidence, the good qualities of the teachers and the stimulating resources.



*“[Child] is undertaking the next stage of his learning through kindy. The best part for me is the independence and social interaction that is new for him.” (Kindergarten C)*

*“That the teachers are very good with each child’s needs and dreams.” (Kindergarten C)*

*“Innovative styles of learning that is interactive and fun for my child, that we are involved also. My child talks about what he does during the day, what he has learnt. So he’s loving what he is doing.” (Kindergarten B)*

Some parents in each service wrote that the hours were the worst aspects.

*“When we first started (age 3), the afternoon sessions were difficult; at that age, it would have been better in mornings.” (Kindergarten A)*

Some parents in each service wrote about poor staff:child ratios as the worst aspects. The ratios on the days we did the observations may have been considerably better than ratios at times when there was full attendance.

Some parents in one kindergarten wrote about wanting to know more about their child’s progress.

None of the kindergartens had spare capacity and most children stayed until they went to school.

#### *Consistently ‘fair’ or ‘poor’ quality services*

Four services were rated as ‘low quality’ in each of the evaluation years. Three were private education and care centres from the same corporate chain. Two of these were bought by the chain during the period of the evaluation. Two were in minor urban areas and one was in a large urban setting. The fourth service was a playcentre in a minor urban area (see intermediate outcome ‘quality in parent/whānau-led service’ for analysis of this playcentre).

Centre A had 26.7% under-two-year-olds, Centre B 35.8% and Centre C 20.4%. Fifty-three percent of children in Centre A were Māori, 14% in Centre B were Māori and 21% were Pasifika and most in Centre C were Pākehā/European.

They were full-day services. Centre A was open five days a week from 7.30am to 5.30pm, Centre B specified only ‘full-day’ and Centre C was open 6.45am to 6.00pm.

The ‘poor’ or ‘fair’ ratings of overall quality were paralleled by ‘poor’ or ‘fair’ ratings on each of the quality dimensions, except for resources, which were rated as ‘good’. Routines cut across children’s play. For example, in one centre children’s names were called for toileting or nappy changing, with no explanation included of the purpose of the call out. In another centre, rules were asserted without explanation (“You’re not allowed to snatch. Get listening.”) The education programme was limited, eg, stories were not read or told during the observations or told only at mat time. Adult-led art activities (eg, stencil pictures, templates) were common. One centre had small broken crayons and blunt pencils for children’s writing. Outdoor space in one centre was a large area with no small spaces and shared by 16 under-two-year-olds. In another, children were prevented from coming inside when they were outside and vice versa. Children sat by the door. Children sat in high chairs for long periods, with limited interaction at times.

The intermediate outcomes also tended to be rated low, suggesting linkages to overall quality. Processes of assessment, planning, evaluation, self-review were rated as ‘fair’ or ‘poor’ in every year, with a few exceptions in 2009. All three services were rated ‘good’ for assessment, one was rated ‘good’ for planning and one “good “for evaluation in 2009. Self-review was ‘poor’ or ‘fair’ in every year. Some self-review was to be done in future.

“Recently we had a directive from head office to carry out self-reviews and this is to be implemented—looking at governance and management and teaching practices.” (Centre A)

Teachers’ understanding of *Te Whāriki* improved from ‘fair’ ratings to ‘good’ ratings in two services in 2009 (the other remained ‘poor’). Centre A with 56% registered teachers in 2009 was one that had ‘good’ ratings on understanding *Te Whāriki* and implementing a bicultural curriculum. It also had a high number of Māori parents and staff and had links to local iwi.

The percentage of registered teachers had improved over the three years, but only one was meeting the regulated requirement of 50% registered teachers in 2009, according to MOE RS61 returns. This was slightly lower than two of the managers’ responses to a survey about their percentage of registered teachers. Centre A had changed ownership and new staff may have been appointed after this.

**Table 38: Percentage of registered teachers in 2004, 2006, and 2009 in services rated consistently ‘poor’ or ‘fair’ quality**

Service	2004 (RS61) %	2006 (RS61) %	2009 (RS61) %	2009 (manager) %	Difficulties in accessing qualified teachers in 2009	How problems were resolved in 2009
Centre A	20	27	56	80-99	Difficulty in accessing qualified relievers	Juggle staff around to meet ratios
Centre B	17	22	36	25-49	Difficulty recruiting qualified teachers, current staff not qualified	Employing more third-year student teachers rather than second-year
Centre C	50	25	43	50-79	Difficulty recruiting qualified teachers and accessing qualified relievers, current staff not qualified	Offering higher salaries, encouraging staff to complete training

Observed staff:child ratios varied across the evaluation years.

**Table 39: Average observed staff:child ratios in 2004, 2006, and 2009 in services rated consistently ‘poor’ or ‘fair’ quality.**

Service	2004	2006	2009	Difficulties in meeting regulations for ratios in 2009
Centre A	1:3.6	1:5.3	1:4.4	Sometimes struggle
Centre B	1:6.8	1:4.1	1:4.5	Sometimes struggle
Centre C	1:2.6	1:3.9	1:4.9	Always meet requirements

In Centres A and C, management stated that professional development was offered on *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars*. The Centre C manager also stated that professional development occurred during staff meeting time. Some staff members reported attending specific courses (Letterland, heuristic play, Pikler), but not all the staff in these centres had participated in professional development. Staff members who were not qualified were not given professional development opportunities. (“As I am not qualified I can’t attend most workshops”. “Limited courses for teachers who do not have a diploma”.) Centre B management offered no professional development. Some of Centre B staff members had been to a Letterland course and some to a child abuse course. In this centre, one teacher said she did not find out about professional development opportunities.

Teachers had either one to three hours or no non-contact time per week, which most rated ‘barely adequate’ or ‘not at all adequate’. These centres had staff meetings once every four weeks.

The main things parents liked best about the centre were that their child was happy and settled and that the teachers were friendly and caring.

Some parents in each service wrote about the fees charged as worst aspects.

*“[Corporate company] owns it now. [Corporate company] is a money making business who don't look after the children and teachers. A barcode to scan your child in and out says it all.”* (Centre A)

*“The fee they charge over and above the so-called 20 hours free government scheme. My child goes for 12 hours per week and [I] get charged \$34.”* (Centre C)

Some parents in each service wrote about the poor staff:child ratios as the worst aspects.

Some parents in two centres also wrote about limited feedback received about their child.

*“Generally the only feedback I get is if he has done something wrong.”* (Centre C)

*“I have to ask to get any information about my child. There is very high turnover of staff so we have to get to know new staff and re-explain any special instructions and a lot of the teachers don't know what they are doing.”* (Centre B)

*“Not sure how much he learned because not recorded often and explained often.”* (Centre B)

Two of the centres had spare capacity and two had about half the children leave before they would have transitioned to school.

### *Downwards trajectory*

One service, an education and care centre, was identified as having a marked drop in the ratings of overall quality. It moved from ‘good’ ratings in 2004 to 2006 to the margins of a ‘poor’ level in 2009. It is a sessional service with ten three-hour sessions per week.

Parallel to the drop in quality was a lowering on the indicators of teaching and learning practices. By 2009 ratings of teachers’ ‘understanding of *Te Whāriki*’ fell from ‘good’ in 2006 to ‘fair’ in 2009 and “implementation of a bicultural curriculum” fell from ‘good’ to ‘poor’. There was no change over the three years in other teaching and learning practices which were already largely rated either ‘fair’ or ‘poor’. The exception was ‘assessment practices’, which were ‘good’ in 2006 and 2009, perhaps reflecting the focus on whole-centre professional development for *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars* and a centre review of learning stories. It seemed that assessment was carried out but not evaluated, reflected on or used in curriculum planning.

In this service, a downward trajectory was highlighted in all the other dimensions important to quality in ECE. Adults were rated as less responsive and adults were not extending children. The education programme, previously ‘good’ was rated as ‘poor’ and the programme was not as well tailored to the interests, knowledge and abilities of all children. Interestingly, while some parents comments reflected concerns over the care, “Doesn’t seem very structured and I sometimes worry that the carers don’t watch my children carefully enough”, others were very satisfied, “We moved her to .... She loves it and the quality of care is just wonderful”. Despite this, collaborative relationships with parents were rated ‘fair’.

Collaborative relationships with external organisations were limited to monthly meetings with other ECE services in the area and a relationship with the kindergarten service to support the registration of teachers. It was said that a lack of time hindered other collaboration.

A key change over the years was the drop in the percentage of teachers holding an approved ECE qualification and teacher registration.

**Table 40: Centre D (downward trajectory in 2009) and staff qualifications in 2004, 2006 and 2009**

Year	Approved ECE qualification %	Registration %	No ECE qualification %	Overall quality rating
2004	80		20	Good
2006	75	75	25	Good
2009	50	50	50	Poor/fair

The centre had sufficient number of staff but was struggling to find qualified teachers. This was attributed to competition for qualified teachers in a locality where many new services were being established and to the cap on intakes to teacher education that was limiting places for staff wanting to train. Some unqualified staff were engaged in study toward an ECE qualification. Fewer staff were registered in 2009 than in 2006. The service also faced difficulty recruiting qualified relievers. Despite offering high salaries, at a cost to the centre, difficulties with recruitment were expected to be a problem over the next few years.

The centre was losing children, almost half the roll in 2009, to the local kindergarten. While *20 hours ECE* had helped retain some families the turnover was still high. Again parental perception appeared to be that kindergarten offered a better preparation for school. As one parent said, “caters for the 0 to five-year-olds and is not quite as good a preparation as kindy”.

### Summary

In summary the picture that emerges is that the services rated highly on the overall quality had high ratings on all the intermediate outcomes except for staff:child ratios. The reverse was the case for those services rated poorly on overall quality, suggesting the connections between the intermediate outcomes that are outlined in the logic model are valid descriptors of consequential relationships. The key point of difference between services that were low quality and services of consistently high quality, was the proportion of qualified and registered teachers, the range and depth of professional development engaged in and management support for teachers/educators to develop professionally. A highly qualified and registered teaching teachers/educators group in teacher-led services, in-depth professional development and supportive conditions for staff to work together were features of the highly rated services. There was less turnover of children and no spare capacity in the highly-rated services.

## Analysis of levels and shifts on intermediate outcomes from 2004 to 2006 to 2009

### Quality teaching and learning practices

Quality teaching and learning practices were measured through indicators of assessment, planning, evaluation, and self-review (Appendix C). These practices are intended to support high quality teaching and learning by offering opportunities for teachers, managers and parents/whānau to gather and examine evidence/information and use it to enhance the quality of the curriculum. Indicators for each of these practices were described within four levels: ‘poor’, ‘fair’; ‘good’; and ‘very good’. Vignettes describing examples of different ratings from the fieldwork are provided in Appendix D. Ratings on indicators of assessment and self-review are compared for 2004, 2006 and 2009. Ratings on indicators of planning and evaluation were made for 2006 and 2009.

Since the Curriculum Development Project 1991–1992 coordinated by Margaret Carr and Helen May (1992), and publication of *Te Whāriki*, 1993 (draft), 1996 (final), MOE policy initiatives and contracted research projects,

publications, and professional development have put emphasis on processes to support curriculum, especially assessment, planning, evaluation, and self-review (Carr et al., 2000). The 2004 data collection was undertaken after useful research and resources for teachers were available (Carr, 1998; Carr, May, & Podmore, 1998; Carr et al., 2000; Ministry of Education, 1996a, 1998, 1999), but before publication of *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars* (Ministry of Education, 2005c), the self-review guidelines (Ministry of Education, 2005a, 2006) or the ICT strategy and associated video (Ministry of Education, 2005b). The ICT strategy focuses predominantly on the potential of ICT to support learning and teaching practice and to make informed decisions about ICT in ECE settings. These last three were strategic plan initiatives. Further assessment resources and professional development were published in 2007 and 2009 (Ministry of Education, 2007a, 2009b). The 2006 and 2009 data collection asked participants about their use of these new resources and associated professional development. Only the draft self-review guidelines had been published in 2006 and these had not been sent to all services. In 2009, all the resources were available.

Overall, ECE services had higher ratings for assessment and planning than for evaluation and self-review in 2009. The highest ratings were for assessment practices, which have also been the greatest focus in MOE professional publications and professional development. Ninety percent of the services were rated as ‘good’ or ‘very good’ for their assessment practices, compared with 72% in relation to their planning practices, 56% in relation to their evaluation practices and 44% in relation to their self-review practices. Self-review practices were the most variable in quality.

**Table 41: ECE service ratings in relation to teaching and learning practices in 2009 (n=32)**

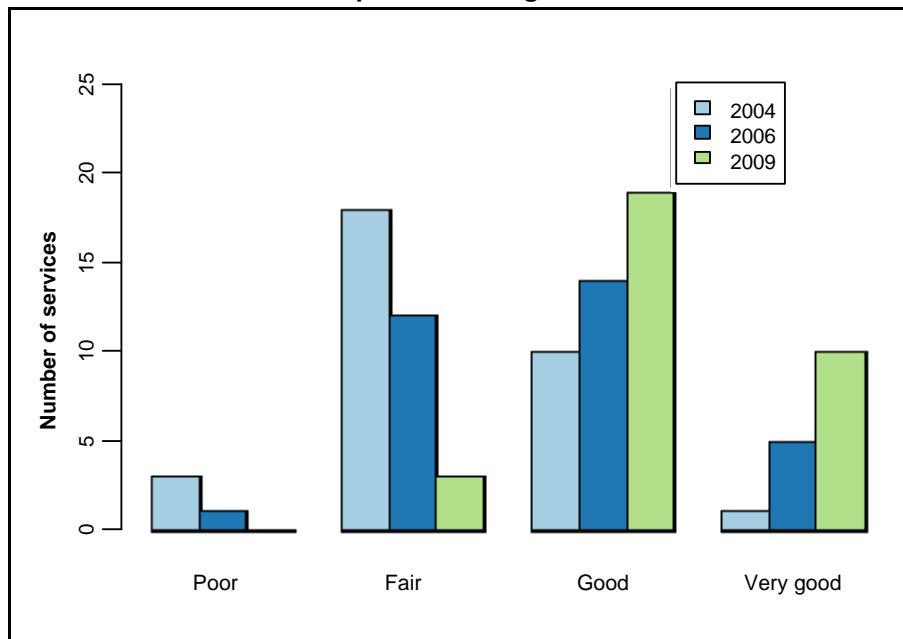
Teaching & learning practices	‘very good’	‘good’	‘fair’	‘poor’
Assessment	10 (31%)	19 (59%)	3 (9%)	
Planning	3 (9%)	20 (63%)	9 (28%)	
Evaluation	3 (9%)	15 (47%)	12 (38%)	2 (6%)
Self-review	8 (25%)	6 (19%)	9 (28%)	9 (28%)

#### *Changes in teaching and learning practices*

Overall, the ratings of assessment, planning, evaluation and self-review showed steady improvements from 2004 to 2006 to 2009.

#### *Changes in assessment practices*

Improvements were especially marked for assessment processes. Between 2006 and 2009, 12 ECE services (38%) improved their ratings for assessment practices and only three (9%) had negative shifts. Ten services were rated as ‘very good’ in 2009 for assessment practices, compared with five in 2006 and only one in 2004.

**Figure 5: ECE services' assessment practice ratings from 2004 to 2006 to 2009**

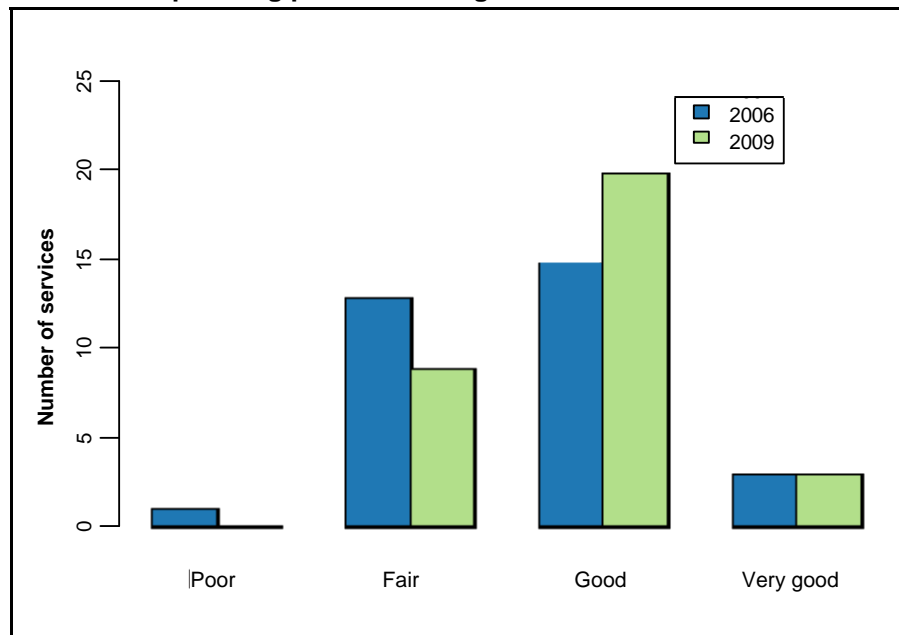
All but one of the services in our sample were using *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars*. One of the three services with only 'fair' ratings for assessment had not used *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars* and the other two had made limited usage of it.

- A playcentre rated 'fair' for assessment in 2004, 2006 and 2009 had not used *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars*;
- The educators in a home-based service rated 'poor' for assessment in 2004, and 'fair' in 2006 and 2009, had only been given a copy of some exemplars within the resource and had no professional development associated with it
- In a playcentre rated 'fair' in 2004, 'good' in 2006 and 'fair' in 2009, only the supervisor used the resource.

#### *Changes in planning practices*

Planning practices improved between 2006 and 2009 (ratings on indicators of planning were not made in 2004). More services had 'good' or 'very good' ratings in 2009 (24) compared with 2006 (19). Eight services improved their ratings and only two went down.

**Figure 6: ECE service planning practices ratings from 2006 to 2009**

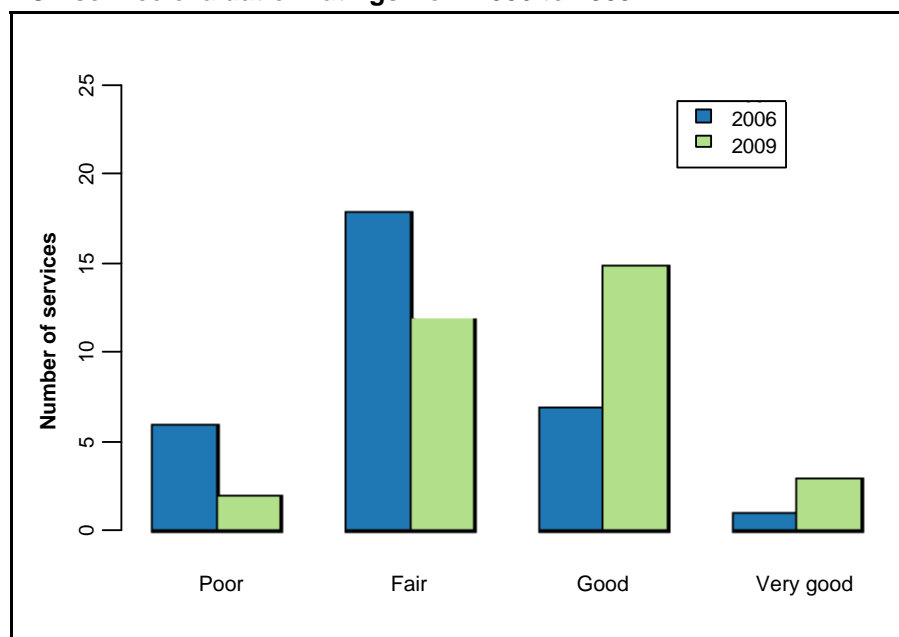


Services with ‘very good’ assessment levels all had ‘very good’ or ‘good’ planning levels in each year. It would be expected that the emphasis within *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars* and professional development linking assessment and planning would contribute to this.

*Changes in evaluation practices*

Evaluation practices also improved between 2006 and 2009 (data is not available for 2004 as we did not ask specific questions about evaluation in that year). Eighteen services were rated as having ‘good’ or ‘very good’ practices in 2009 compared with eight in 2006.

**Figure 7: ECE service evaluation ratings from 2006 to 2009**

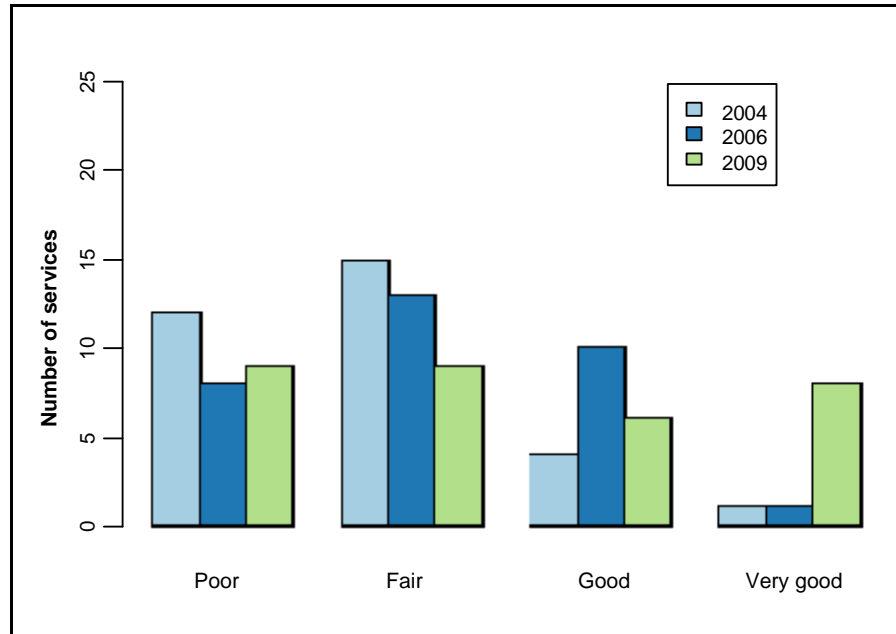


Fourteen services improved their ratings and only two declined.

### Changes in self-review processes

More services were rated as having ‘very good’ self-review practices in 2009 (eight) compared with 2006 (one) and 2004 (one).

**Figure 8: ECE service self-review ratings from 2004 to 2006 to 2009**



Self-review has been a relatively recent focus of MOE and in 2006 few services had seen the draft guidelines. Self-review has not been accompanied by the kinds of professional development that accompanied the publication of *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars*.

### Analysis of levels in teaching and learning practices for services and children

Variable levels (‘poor’ to ‘very good’) were reached for assessment and planning in education and care, playcentre and home-based services. Kindergartens and Pasifika services were rated as ‘good’ or ‘very good’ on each of these processes in every year of the evaluation. Self-review was rated as ‘poor’ or ‘fair’ in all but one playcentre.

There were no differences by child characteristics.

### *Te Whāriki* is effectively implemented

*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, 1996b, 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, 1996b, p.10). It “requires attention to every aspect of every child’s experience within the early childhood setting” (Nuttall, 2003, p.162). 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, 1996b, p.11).



Two dimensions were measured for this intermediate outcome: teacher/educators' understanding of *Te Whāriki* and implementation of a bicultural curriculum. Seventy-five percent of the services were at a 'good' or 'very good' level in their understanding of *Te Whāriki* in 2009. Forty-one percent were at a 'good' or 'very good' level in their implementation of a bicultural curriculum.

**Table 42: Ratings of understanding *Te Whāriki* and implementing a bicultural curriculum in 2009**

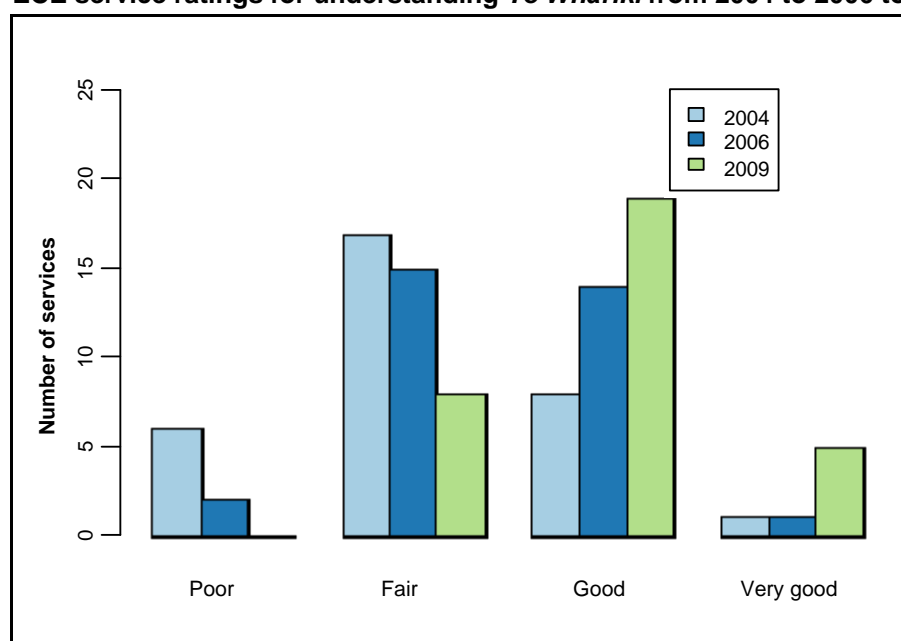
Indicator	'very good' n (%)	'good' n (%)	'fair' n (%)	'poor' n (%)
Understanding <i>Te Whāriki</i> (n=32)	5 (16)	19 (59)	8 (25)	
Implementing a bicultural curriculum (n=32)	2 (6)	11(34)	15 (47)	4 (13)

### *Changes in Understanding Te Whāriki*

Overall, ratings of understanding *Te Whāriki* steadily improved from 2004 to 2006 to 2009. From 2006 to 2009, 16 improved their ratings and only two shifted negatively.

None of the services were rated as 'poor' in 2009 compared with two services in 2006 and six services in 2004.

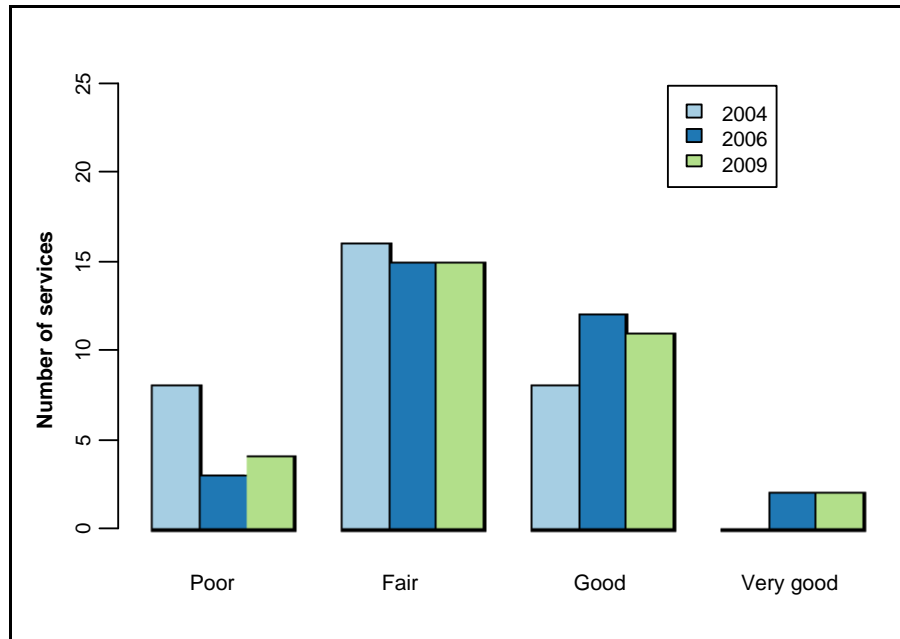
**Figure 9: ECE service ratings for understanding *Te Whāriki* from 2004 to 2006 to 2009**



### *Changes in implementing a bicultural curriculum*

Ratings of implementing a bicultural curriculum improved from 2004 to 2006 but did not change between 2006 and 2009. The two services rated as 'very good' had as a goal to be bicultural and had undertaken professional development associated with their goal.

**Figure 10: ECE service ratings for implementing a bicultural curriculum from 2004 to 2006 to 2009**



A higher percentage of services with a high number of Māori children had ‘good’ or ‘very good’ ratings on implementing a bicultural curriculum in 2006 and 2009. Teachers in these services tended to draw on the knowledge and expertise of parents and to regard being bicultural as a priority.

In some other services with fewer Māori children, teachers said their priority was catering for their ‘multicultural’ families, which was portrayed as being in conflict with being bicultural. “We are not bicultural, we are multicultural”. Nevertheless, this was not always the case and a bicultural focus was evident in a multicultural centre for children of refugee families.

*“Being bicultural in our centre means valuing and including the language and respecting the customs of the tangata whenua. One way this is done is through having words in Māori up on the walls, also singing songs, counting and sharing stories in Māori. There is a flow-on effect I see in that because the Māori language is respected and valued, the other languages of our children and their families are also treated in the same way.” (Teacher)*

Teachers in this centre referred to ways in which they wove tikanga Māori and other cultures into their curriculum.

#### *Analysis of levels in implementing Te Whāriki in relation to service and child characteristics*

Differences in the shifts and levels relating to the implementation of *Te Whāriki* may be attributed to the qualification levels, nature and take-up of professional development opportunities and use of professional resources rather than the nature of the service or child characteristics.

In 2006, we found that teachers in services shifting to ‘very good’ or ‘good’ ratings for understanding *Te Whāriki* from 2004 to 2006 or maintaining ‘good’ or ‘very good’ ratings in 2006 were more likely to report take-up of professional development linked to *Te Whāriki*, make use of *Kei Tua o Te Pae. Assessment for Learning: Early childhood exemplars* (which is based on *Te Whāriki*), and have ‘good’ ratings for teacher/educator qualifications than were services that maintained ‘poor’ ratings or shifted from a ‘good’ to a ‘fair’ rating. By 2009, it was not possible to make meaningful judgments linking shifts in ratings for ‘understanding *Te Whāriki*’, with use of assessment resources and qualification levels. This was because of the widespread positive changes for most services on the latter two aspects.

Six services maintained ‘poor’ or ‘fair’ ratings on understanding *Te Whāriki* over the evaluation period. Four were playcentres, one a home-based service and one an education and care service. Managers in all these services except for the home-based service, reported issues related to qualification requirements. One of the playcentres was no longer operating with a supervisor and parents were undertaking playcentre training to run the sessions alone. This was new to them. Another playcentre response to the management survey expressed continuing issues caused by the turnover of parents.

*“Presently getting trainees in all centres to participate is a bit of a struggle. Time and ability seem to be barriers. (Ability = lack of confidence). The nature of playcentre and evolving committees does not allow for continuity. We have highs and lows in a majority of centres. By the time we have trainees at Course 3 level, they usually have another 12-24 months left in playcentre then enrol their child in kindergarten for various reasons, return to employment, transition for school etc.”*

The education and care centre was in the 50% to 79% registered teacher band but all the teachers were provisionally registered – there were no experienced fully registered teachers. Other staff had no ECE qualifications. The service had difficulty in accessing qualified teachers and relievers.

#### More qualified teachers work in ECE

The ECE strategic plan set targets for increasing the number of registered teachers in teacher-led services. By 2005, all persons responsible were required to be registered teachers. Further targets were set for December 2007—50% of regulated staffing required to be registered teachers; 2010—80% of regulated staffing to be registered teachers, (services can also count teachers studying for a New Zealand Teachers Council (NZTC) approved qualification as up to 10% of the 80% requirement), 2012—all regulated staff to be registered teachers or at least 70% of regulated staff to be registered teachers and the remainder to be studying for an NZTC approved qualification. A recognised ECE qualification is necessary to become eligible for registration. The May 2010 Government Budget amended the timeframe for the 80% registered teacher to 2012 and withdrew the 100% requirement but this was outside the timeframe for this evaluation.

Parent/whānau-led services, kōhanga reo and playcentres are not required to employ registered teachers but have their own service-specific qualifications. The ECE strategic plan did not set targets for improving educator qualifications for these services.

International research evidence shows linkages between staff qualifications and outcomes for children.

*“Qualified teachers are likely to draw on their knowledge and experience of children and pedagogy to offer the kinds of cognitively challenging adult:child interactions that are linked with gains for children. The NICHD ECCRN study (NICHD Early Child Care Network, 2002) using structural equation modelling, found a mediated path from structural indicators of quality (teacher qualifications and staff:child ratios) through process quality to cognitive competence and caregiver ratings of social competence. These authors suggest that ‘more caregiver training may lead to better interactions between children and adults, while lower ratios may lead to more interactions’. (NICHD, Early Childhood Care Research Network, 2002, p.206).”*  
(Mitchell, Wylie, & Carr, 2008, p. xiii)

MOE figures show that, nationally, the proportion of teacher-led services with 50% or more of their teachers with teacher registration rose between 2004, 2006 and 2009. Overall, in 2004, 37.3% of teachers held teacher registration compared with 56.4% in 2006 and 64% of teachers in 2009. In 2009, 98.6% of home-based coordinators, 96.5% of kindergarten teachers and 58.4% of education and care teachers were registered.

Consistent with the strategic plan goal to increase the number of registered teachers in teacher-led services, the percentage increased from 2004 to 2006 to 2009 for the services in this study.

**Table 43: Levels of registered teachers in teacher-led services in 2004, 2006 and 2009 (RS61)**

Year	100% (n)	80-99% (n)	70-79% (n)	50-69% (n)	Less than 50%
2004 (n=23)	9		1		13
2006 (n=23)	9		1	4	9
2009 (n=23)	11	1	2	3	6

\* The MOE was unable to provide data for one of the services so the number is 23

Kindergartens employed 100% registered teachers in every year, except 2009 when one teacher was not registered. This may have been temporary as teachers in kindergartens are required under legislation to be registered and all the teachers were registered when we collected data for the study.

Registration levels in one of the two Pasifika services varied from 100% in 2004, to none in 2006, to 100% in 2009. The other had 71% in 2009 according to managers.

The strategic plan actions of setting targets for the percentage of registered teachers and providing financial incentives to encourage training and registration appear to have contributed to the rise in registration levels in teacher-led services in this study and nationally.

#### Reduced ratios and group size

Low adult:child ratios provide enabling conditions for teachers to be responsive to children, and scaffold and stimulate learning and well-being. In a recent literature review of outcomes of ECE (Mitchell, Wiley et al., 2008), ratios were found to be especially important for language stimulation of babies and toddlers. The impact of group size is less clear since much depends on how the early childhood education service activities are organised. There is usually only limited whole-group focus and more than one teacher in early childhood services in Aotearoa New Zealand. Children tend to move in and out of different size groups throughout a session or day.

#### *Adult:child ratios*

Roll numbers, age of children and whether the service is all-day or sessional are used to determine regulated age groups and ratios. Currently, there are two age bands: under-two-year-olds and over-two-year-olds. Ratios for under-two-year-olds are 1:5. Ratios for over-two-year-olds are 1:6, 2:20, 3:30 etc. in all-day centres and 1:8, 2:30, 3:45, 4:50 in sessional centres. The ratios in playcentre required by playcentre rules (1:5 for over-two-2½-year-olds and a nominated caregiver or parent for children under two½ years) are better than those regulated for teacher-led services.

Some additional staffing through provision of an Education Support Worker may be available for children with special education needs who meet criteria.

#### *Maximum centre size*

The maximum number of children who can attend an ECE service at any one time is 50 children, with no more than 25 aged under two years old. In playcentre a maximum of 30 children are able to attend at any one time.

#### *Levels of ratios and group size*

Actual ratios and group size are often better than regulations because of child absences. Our observations began in the winter months (August) in 2004 and 2009 and were done during the winter of 2006. Winter weather may lead to more child absences and hence there may be lower ratios and group size than would be found at other times of the year.

No shifts in ratios occurred in these ECE services between 2004, 2006 and 2009.

**Table 44: Observed average teacher:child ratios in 2004, 2006 and 2009**

Service	Average teacher:child ratio		
	2004	2006	2009
Kindergarten (n=8)	1:7.5	1:7.2	1:8.5
Education and care (n=12)	1:4.2	1:4.1	1:4.7
Pasifika (n=4)	1:4.9	1:4.2	1:3.7
Playcentre (n=8)	1:1.6	1:1.4 (mixed)	1:1.7
Home-based (n=3)	1:2.4	1:2	1:3.3

In kindergartens, the average number of over-two-year-olds reduced over time from 32.25 in 2004 to 25.88 in 2009, while in education and care centres the trend was for increased numbers of children from 15.85 in 2004 to 22.13 in 2009.

**Table 45: Observed average group sizes in 2004, 2006 and 2009**

Service	Average number of under-2s			Average number. of over-2s			Average number of children		
	2004	2006	2009	2004	2006	2009	2004	2006	2009
Kindergarten (n=8)	0.63	0.19	.25	32.25	27.09	25.88		27.28	27.5
Education and care (n=12)	5.34	4.62	4.88	15.85	18.13	22.13		22.75	27.96
Pasifika (n=4)	3.5	4.56	2.25	11.63	12.75	13.75		17.31	16
Playcentre (n=8)	3.44	2.75	4.72	9.44	7.06	6		9.81	11
Home-based (n=3)	1.33	0.25	.5	1.92	1.75	2.75		2	3.25

No strategic plan actions have been taken to improve ratios or group size. However, the slight increases in observed numbers of children in education and care centres may perhaps be associated with the reported reduction in spare capacity in education and care centres in 2009 compared with 2006. The kindergarten reductions in observed numbers of children may be associated with the changes for kindergartens in the study to operate a longer day perhaps with fewer children. Both the reductions in spare capacity and the changes to kindergarten operation appear to have been influenced by strategic plan funding initiatives.

#### ECE services meet cultural and language aspirations

In 2002, Equity Funding was implemented. One of its components is targeted at services providing ECE in a language other than English for their education programme. *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars* was offering exemplars but no other strategic plan actions had been specifically aimed at improving the outcome 'ECE services meet cultural and language aspirations'.

This intermediate outcome was measured through different items in 2009 from those used in 2004 and 2006 (Table 16 below). A separate small report *Meeting cultural and language aspirations* is being prepared to analyse the 2009 indicator in more depth and highlight examples. In this section we present a summary of findings from the 2009 indicator.

The following indicator was used in 2004 and 2006.

**Table 46: Descriptions of ‘very good’ rating for ECE services meet cultural and language aspirations for 2004 and 2006**

Kōhanga reo	Pasifika	English-medium
<i>Kōhanga reo</i> meets parental cultural needs well, high ratings from observations of te reo and tikanga Māori, kaiako high level of te reo fluency and ability to initiate and participate in Māori cultural practices	<i>Pasifika</i> meets parental cultural needs well, high ratings acceptance of all cultures, teacher high level of Pasifika language fluency and ability to initiate and participate in Pasifika cultural practices	<i>English-medium services</i> meet parental cultural needs well, high rating te reo and tikanga Māori, high rating of implementing a bicultural curriculum, high rating accepting cultures of all children

The new indicator in 2009 was designed to enable separate and deeper analysis and reporting for the rating of ‘Implementing a bicultural curriculum’ and field researcher ratings of te reo and tikanga Māori, from the rubric for ‘Meeting language and cultural aspirations’. The new indicator for “Meeting language and cultural aspirations” drew on field researcher ratings, parent and management questionnaires and interviews with teachers. The indicator for a ‘very good’ rating is described below. Appendix C describes the other levels.

**Very Good:** (This service has goodwill and good intentions and has already gone some way towards being diversity-literate and practically committed).

Field researcher rating of *evidence/acceptance of the cultures of all children at the service is 4–5*. Field researcher rating of inclusive practice is 4-5. Families from the different ethnic communities represented within the service contribute to the curriculum and assessment. Some narrative assessments are written in the first language of children from families who have limited or no English language. The teachers have actively researched information about these diverse communities and have made connections with people, organisations and resources that support the inclusion of cultural practice, values and resources and contribute to teacher understanding. For example: they have made connections with services offering support and resources, such as Ethnic Migrant Link Service, New Settlers; teachers have researched ethnic cultures and values, cultural sensitivity and respect, and significant cultural practices. Staff and volunteers from the diverse ethnicities of the service are participating in the programme. Teachers/educators value and understand the significance of the child’s first languages and cultures, which they understand has a direct relationship with the child’s self-esteem. All parents feel welcome at the ECE service. Management includes the diverse cultural communities in policy development. Management regularly and appropriately monitors and evaluates service provisions for families of diverse ethnic backgrounds.

We also explore parents’ views about the cultural responsiveness of their service by parents’ ethnicity.

Four ECE services were rated as meeting language and cultural aspirations at a ‘very good’ level in 2009. These were an education and care centre catering predominantly for the children of refugee and migrant families learning English as a second language at an adjacent secondary school, one of the Pasifika services and two kindergartens in predominantly Māori communities.

**Table 47: Levels of services meeting language and cultural aspirations in 2009 by service type**

Type	Very good	Good	Fair	Poor
Kindergarten (n=8)	2 (25%)	5 (63%)	1 (13%)	
Education and care (n=12)	2 (17%)	7 (88%)		2 (17%)
Playcentre (n=8)		7 (88%)	1 (13%)	
Pasifika (n=2)	1 (50%)	1 (50%)		
Home-based (n=2)			2 (100%)	
Total (n=32)	5 (16%)	16 (50%)	8 (25%)	3 (9%)

Six of the seven services (86%) with high Pasifika enrolments and 100% of the services with high Māori enrolments were rated as ‘good’ or ‘very good’ on meeting language and cultural aspirations – higher than the overall percentage of 66%. All the services receiving Equity Funding had ‘very good’ or ‘good’ ratings.

In 2009, we analysed parent questionnaire responses to the items:

- Do you feel welcome at this ECE service?
- What is it about your ECE service that reflects your child’s culture?
- What characteristics do you want from your ECE service?

There were no differences by ethnicity in parents’ views that they felt welcomed in their ECE service. Overall, most families responded ‘yes’ to this question.

Asian parents were less likely than other parents to state that their cultural practices and resources were frequently or sometimes included in the programme.

**Table 48: Parents’ ratings that cultural practices and resources are included frequently or sometimes in the programme**

Item	Māori (n=135) %	Pasifika (n=47) %	Asian (n=27) %	South American, African, Middle Eastern (n=38) %	Pākehā/ European (n=328) %
Family’s cultural practices included in programme	71	53	33	61	65
Resources from family’s cultural background used in the programme	62	62	19	55	58

The examples below are of two highly rated services.

### **1. An education care centre for children from refugee and migrant families**

In an education and care centre with high ratings, the centre is richly resourced to reflect the languages and cultures of its multicultural community. Wall hangings, rugs from home countries, written languages and other cultural artefacts are evident. Staff, some from the ethnic communities of families, speak a variety of languages. Learning stories are sometimes written in the home languages of the families. A ‘hello’ song and counting games at morning tea time are sung in the home language of each child. Children are learning each other’s languages and English, while having their home language affirmed. Children’s interests and attachments are noticed and supported. Families are welcomed as part of the centre. They are included in morning teas, lead celebrations and contribute to curriculum, eg., “I help with upset children especially if they are from my community”; “I bring flowers and veges from my garden”; “Sharing my language, making number charts for teachers”, “Bringing music” and “Helping with library groups and supporting my own child”.

*“The teachers have gone out of their way to make contact with community organisations and resources to support their own understanding and to support families. They are part of celebrations in family lives.”*

*“Inclusion of the different cultures within the centre is very important. As a teacher I try and attend the many different events that happen outside the centre. Some of them so far include a Muslim wedding of an Afghani family and a candle lighting ceremony at the Buddhist Temple where some of the Myanmar families attend. One of the practical ways that the centre does in regards to inclusion is having food that all the children can eat.”*

The bilingual teachers are a real asset and help to new families, also providing the other teaching staff with insights and understanding.

Their planning stories use a ‘noticing, recognising, responding’ frame to notice families in ways that help them feel comfortable and at home, to recognise more ways to support family involvement and to respond, eg, by developing relationships within the wider community.

The teachers have taken part in many opportunities for professional development. They contributed to the assessment exemplars and participated in the Learning Wisdom project and Centre of Innovation workshops. Some teachers have taken part in English for Speakers of Other Languages (ESOL) courses, Islamic language courses and many other workshops.

### **2. A kindergarten developing bicultural practice**

In 2009, teachers in a kindergarten in a community with a high Māori population were motivated to enhance their bicultural practice and were developing their approaches to curriculum. In 2006, biculturalism was seen as something that ‘fitted into any strand’ in the ECE curriculum, but no particular attention was paid to bicultural practice. Repeated staff changes and a shortage of registered teachers had contributed to a stressful environment for the head teacher at the then two-teacher, sessional kindergarten. When the head teacher left, there were a series of relievers for close to two years. The kindergarten teachers were receiving support from their professional services manager.

The kindergarten was changed to operate for a school day, with three teachers in 2008 and a new head teacher appointed. All three teachers lived locally and two had been raised in the community and had connections with local iwi. The head teacher had worked in ECE in the region for many years and had developed good networks throughout the ECE community. She was also well known by families in the area. Teachers were also engaged in education, both academic and professional development including workshops and seminars on development of bicultural practice. These included bicultural practices and implementation, a two-day seminar on the dynamics of whanaungatanga, working with Māori whānau, tamariki and mokopuna, a bicultural journey with Mason Durie and Hine Elder, and Matariki celebrations.



When asked what being bicultural looked like in the kindergarten the head teacher said:

*“Well for everybody it's different but for me it's knowing that your culture is respected and affirming for you or for the children, tamariki and whānau that they have a place here and it doesn't just mean the bicultural nature of the curriculum but the whole aspect of our tamariki in our community. It's seeing symbols that connect and mean things to me, that mean different things to my colleagues. It's kupu, it's the use of it within your daily working with the tamariki and waiata... stories, tikanga... no shoes inside, that kind of thing, just putting that in to practice...”*

Families and whānau are a key resource for this kindergarten, with parents contributing by making poi, providing waiata, making kai and leading cultural performances. Community involvement is viewed as essential and assessments were shared with family and whānau. To connect to the community, the kindergarten held monthly community meetings open to all members of the community not just families attending the kindergarten. Surveys, both written and verbal, are conducted to find out what families think of the kindergarten. The kindergarten also has a newsflash folder with photos of recent events and activities put together by teachers and whānau. In addition, the kindergarten was the venue for many local events.

The staff at this kindergarten focused on the development of collaborative relations, undertaking self review to find out about families, make the environment more welcoming and an extension of the families' homes with a view to making the kindergarten culturally responsive. The kindergarten was seen as the families' turangawaewae. Parents' comments reflected a sense of belonging.

*“Teachers discuss my child's interests and plan activities that involve and extend these interests. They are happy for me to contribute to his portfolio with home learning stories.”*

*“[What I like best is] Whakapapa for my child.”*

These two snapshots show that whānau are recognised to be at the heart of early childhood education and care. There is a sense of belonging, that the ECE centre is a place for family and community. Teachers find out about their families and communities and make opportunities for them to contribute their funds of knowledge. The qualified teachers in these services participated in a wide range of relevant in-depth professional development and were motivated and committed.

The separate report *Meeting cultural and language aspirations* (In preparation) highlights these services to analyse factors that have contributed to their responsiveness to cultural diversity.

#### Quality in parent/whānau-led services

One of the intermediate outcomes of the strategic plan is to improve quality in parent/whānau-led services.

Research investigating quality in these services was published in 2006 (Mitchell, et al., 2006b). The research analysed factors that contributed to children's learning, and parent learning and support in playgroups, playcentre, kōhanga reo, puna, and Pasifika services. It showed the following factors were associated with higher quality

- structural factors, ie, qualified educators/kaiako, good quality resources, small group size (in playgroups)
- parent participation in training and professional development/wānanga
- experienced adults working in the education programme
- access to and use of a wide range of professional advice and support
- parent participation in the education programme

- leadership for adult learning.

High levels of communal language fluency were a contributing factor to language and culture learning and maintenance in kōhanga reo, puna, and Pasifika centres.

High volunteer workload distracted some playcentre parents from participating fully in aspects of the playcentre that were important for children's learning.

Like other services, parent/whānau-led services, except playgroups, have had access to MOE professional resources and funded professional development. Playgroups may get some support from MOE playgroup coordinators.

Other specific strategic plan actions to improve quality for these services have occurred. The May 2006 Government budget increased playcentre funding to improve financial sustainability and “help reduce the time Playcentre volunteers currently need to spend on administration, so they can spend more time with children” (Maharey, 2006). Playcentre training became funded at its full Equivalent Full Time (EFT) value (the Playcentre Education Diploma was previously funded at about a third of its EFT value). This may reduce the amount of levies that playcentres need to pay to their associations for training, and so reduce their need to fundraise, and encourage more parents to train. Playcentres were eligible to access funding for *20 hours ECE* for three- and four-year-olds from July 2010 but this was beyond the timeframe for this evaluation.

#### *Playcentre compared with teacher-led services*

We have highlighted some differences between playcentre and other services on some of the intermediate outcomes. Since kōhanga reo was not part of the study in 2009, we are not able to make other comparisons. Playcentre has better ratings of adult:child ratios and relationships with families than teacher-led services.

Playcentre had better average actual ratios than those found in other service types. (Many parents attend with their child.) Five playcentres (63%) had ‘very good’ or ‘good’ ratings for their levels of relationships with families in 2009, a higher percentage than teacher-led services (20%). The focus in this indicator is on partnerships that support educational aims. The playcentre movement's core belief in the family/whānau as the most important setting for the education and care of the child and the work of playcentre families as a collective to deliver the education programme is congruent with this indicator.

#### *Consistently ‘fair’ quality*

One playcentre was rated as being of consistently ‘fair’ quality across the three years of the evaluation. Analysis suggests factors that contribute to the difficulties this playcentre faced were low ratings on teaching and learning processes and implementing *Te Whāriki*, insufficient educators with higher levels of qualification, roll instability and limited professional development take-up.

### Contributing factors in a playcentre rated ‘fair’ quality in each evaluation year.

Interestingly, the “low quality” playcentre was rated ‘good’ in terms of resources, so tools and space were available to support learning. However, the “education programme”, “adult extends learning” and “children, support, cooperate and co-construct learning” were all quality dimensions consistently rated either ‘poor’ or ‘fair’. While it may be that the lack of children co-constructing learning reflected the younger age-group attending the service, largely three years and under, and while adults were at times rated fairly responsive, there seemed to be a limited understanding of the curriculum and the importance of adults interacting with children in ways that scaffold and guide learning.

Educators’ understanding of *Te Whāriki* and implementation of a bicultural curriculum were rated ‘poor’ or ‘fair’. There were few Māori or Pasifika parents and the parent group appeared to struggle with the implementation of a bicultural curriculum.

Assessment, planning, evaluation and self-review processes also received low ratings. There was just one occasion across three years, in 2006, where the service was rated ‘good’ for assessment practices. The rating decreased to ‘fair’ again in 2009, although a parent had taken part in training for *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars*. Teaching and learning practices were largely informal. For example, planning consisted of following the children’s interests by asking them what they would like to do and evaluation was a discussion at the end of the session.

This service had difficulty meeting the regulated (ratio) of staffing. It was said to be difficult to retain qualified parents but also to recruit parents to train to a sufficient level. There was a limited pool of parents interested in playcentre training despite encouragement and offers of mentoring. The majority of parents gained Level 2 at the most. The greatest challenge for this playcentre was “meeting the playcentre points system, so we don’t get funded often”. At the time of data collection the playcentre had lost its paid educator. Retaining sufficient qualified parent educators was an issue for some other playcentres in the evaluation as was the struggle to meet regulated (ratio) standards, with qualified playcentre supervisors sometimes employed to cover regulated standards. In the two instances where playcentres were of a high quality, there were some parents with Level 4, providing opportunities for mentoring over time.

Compounding the effect of having few qualified educators was the choice made by many parents to move their children to kindergarten once they turned four, further diminishing the opportunity to achieve a pool of parents trained to a sufficient level and indeed able to mentor others new to playcentre. The demand for a different service type was attributed to parents wanting a more structured type of service that prepared children for school, as well as parents wanting to use a teacher-led service so they could have some time out. Interestingly, children stayed until school-age in just a quarter of the eight playcentres in the overall evaluation.

Most of the participation in professional development was focused on gaining playcentre qualifications, with parents studying towards Levels 2 and 3. One parent had also attended a workshop on *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars*. It is unclear as to whether the knowledge gained by those attending workshops and information and resources provided by MOE was disseminated to other parents. The extent of participation in professional development was considerably lower in this playcentre than for playcentres overall in the evaluation, where most indicated they attended workshops to help them use *Te Whāriki* as well as studying towards Playcentre Qualifications.

Finally, access to a wide range of professional advice and support and collaborative relationships with other ECE services are also important factors contributing to quality and lack of these limits the opportunity for services to learn with and from each other. For this playcentre, collaboration with other services was limited to visits from health professionals

## Use of MOE resources

*Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars* has been widely used and is highly regarded. All but one service was using it in 2009 and many had had professional development associated with it. This compared with just over half that were making comprehensive use of it in 2006. Some usage in 2009 was limited, however, and not supported by professional development. For example, one of the home-based coordinators commented that there was limited availability of professional development for caregivers. Visiting teachers were expected to train them. One of the attractions of *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars* is its use of exemplars from actual services in Aotearoa New Zealand.

In 2009, self-review guidelines were also highly regarded and being used extensively. In 2006, views about the draft self-review guidelines were mixed. Some teacher/educators were concerned about how much time the practices would take and administrative workloads. Few participants were using them. This situation had changed by 2009, perhaps as more teachers/educators used the guidelines and found them to be valuable.

Centres of Innovation were known to about half of the services in 2009, a little more than in 2006. They were well regarded as offering research-based ideas on new approaches to practice and being inspirational.

Few teachers/educators knew about the ICT strategy and video or used it. Usage of these resources was less than in 2006 when about half of the services used them.

## Qualification incentives

Government initiatives and targets to raise levels of qualifications have contributed to improvement in qualification levels for teacher-led education and care centres and Pasifika services.

In 2006, 64% of teacher-led services had used government initiatives to increase their number of registered teachers. In 2009, the percentage was similar (67%). Pasifika services and centres were most likely to use the incentives, although half the kindergartens had used them in 2009. No home-based services in the sample used them.

The Incentive Grant was most commonly used (43% in 2009), followed by TeachNZ scholarships (33% in 2009). In 2006, the Primary Study Grant was used by 17% of services. This fell to 5% in 2009. The Support Grant for Provisionally Registered Teachers was more commonly used in 2009 (14%) than in 2006 (8%). Perhaps these figures parallel the growing percentage of qualified ECE teachers in the study services and a shift from supporting training to becoming registered.

Management were largely positive about the registered teacher targets. Comments included that there is a “better programme of teaching” and “more knowledge and ideas about how to teach” and that “teachers feel valued and that they made a wise career choice”. Some wrote of difficulties in recruiting qualified teachers. Others wrote that the targets made no difference because the staff were qualified already (“but a wonderful initiative”).

Positive comments were made about the initiatives by those who had used them, eg, “Teacher registration support grant has been extremely beneficial. Assisted tutor teachers, teacher registrants to purchase resources and tools to assist them with documentation”, and “The new teachers grant helped my staff to get the extra support, PD and resources required”.

**Table 49: Usage and views of MOE professional resources and support in 2009**

Resource	Perceived value	Typical comments	Who used resource?
<i>Kei Tua o te Pae. Assessment for Learning: Early childhood exemplars</i>	<p>Contributed to greater understanding of assessment for learning.</p> <p>Helped make assessments open to contribution from parents and children.</p> <p>Used as reference material and to gain ideas. Does not “tell you what to do”, but is a useful resource.</p> <p>Introduces theoretical ideas and references that can be followed up. Valuable use made of the ‘notice, recognise and respond’ framework.</p> <p>Easy to access, user friendly.</p>	<p>“We reflect on exemplars, we discuss them and see how they apply.” (Pasifika teacher)</p> <p>“I have read all the kits. The Mathematics diagram is brilliant. I really like the stories from the services—the power of a well written narrative and good photos. We need more and more. We are heartbroken it will be stopped.” (Kindergarten teacher)</p> <p>“Huge [impact]. Planning. Assessment for learning is more natural. Kei Tua o te Pae is a workable document that supports teachers to implement curriculum.” (Kindergarten teacher)</p>	<p>All but one service (a playcentre) was using the resource. Most were making regular use of it.</p> <p>Two had it available and used it from time to time. Caregivers in one home-based service were given copies of some exemplars. In the other the coordinator did not give the kits to caregivers but used information from the kits.</p> <p>Most used Books 1-9. Three services did not have Books 10-20. Teachers in one of these said “I was eager to have them”.</p>
Professional development linked to exemplars	<p>Valuable in its focus and bringing teachers/educators from one service together.</p>	<p>“Being involved in this PD across several years has allowed us to deepen our teaching and learning skills – ensuring our children and families have a quality service.” (Education and care teacher)</p> <p>“It made you think about documenting children’s learning and different ways children learn.” (Education and care teacher)</p> <p>“Everyone is on the same page.” (Education and care teacher)</p>	<p>About 2/3 of the services had participated. Playcentres were less likely than other service types to have participated (4 out of 8).</p>
Self-review guidelines	<p>Valuable in generating reflective practice.</p> <p>Guidelines useful in providing a structure and indicators that can be followed.</p>	<p>“This has made a huge difference to us. Recognising and valuing teacher reflection.” (Education and care teacher)</p> <p>“Has made us reflect on what we do and why.” (Education and care teacher)</p> <p>“Useful-use formats and indicators. Follow formats.” (Education and care teacher)</p>	<p>All services except three playcentres, an education and care centre and a Pasifika centre.</p> <p>One playcentre educator said that self-review guidance came from the association rather than directly from the MOE guidelines.</p>
Centres of Innovation	<p>Inspiring practice, offering research-based ideas.</p> <p>Offer exemplars of new approaches.</p> <p>Participants benefited from hearing from other teachers/educators of their service type.</p>	<p>“Information and learning gained from these centres trickles down by way of articles in our playcentre journal.” (Playcentre educator)</p> <p>“Provided a level or rigour in terms of research that enhanced practice not only for selves but also others (this kindergarten was a COI).” (Kindergarten teacher)</p> <p>“Some have inspired our practice.”</p> <p>“Opened my eyes to others areas of practise/research inspirational. It’s too easy to get set in ways. COI re-ignited passion gave inspiration. True commitment to ECE.” (Education and care teacher)</p>	<p>Half the services had read publications or been to workshops.</p>
<i>ICT strategy</i>	<p>Pedagogical tool. Effective in use with children and families.</p>	<p>“The ICT strand has run through all our PD. It has been especially beneficial to access the work of...” (Education and care teacher)</p> <p>“Developed our level of ICT for children using it as a guiding document. Gave support to ways of introducing/using [and] sharing [ICT] with children.” (Education and care, teacher)</p> <p>“No impact. Too hard to implement in home based care. (Home-based coordinator).” (Education and care teacher)</p>	<p>Most services did not know about this resource. Seven services used it.</p>

## To what extent, in what ways, and how effectively has the strategic plan enhanced quality?

To what extent has the strategic plan enhanced quality?

The strategic plan aimed to enhance quality through actions related to intermediate outcomes of the strategic plan model. In 2006, there had been no change in overall quality ratings but some positive shifts in the intermediate outcomes were related to strategic plan initiatives. By 2009, these initiatives were well established and would be expected to continue to enhance intermediate outcomes and also impact overall quality.

In 2009, positive shifts in *overall quality* were apparent. Overall ‘good’ and ‘very good’ quality was sustained or strengthened between 2006 and 2009 in 22 of the study services (69%). On the whole the variable shifts in ratings that were evident in 2006 were replaced with a pattern of consolidation or gain. These gains were associated with the uptake of training and professional development opportunities emerging from the strategic plan. However, 10 services were rated as ‘poor’ or ‘fair’ quality in 2009. Four of these services had been at this level of rated quality in each of the evaluation years.

Positive shifts, starting to be evident in 2006, continued to occur on the intermediate outcomes of the strategic plan that had been a specific focus for MOE initiatives. These were:

- *Quality teaching and learning practices*. The most marked upwards trajectory was evident for *assessment practices* with 91% reaching a ‘good’ or ‘very good’ level in 2009 up from 59% in 2006 and only 34% in 2004.
- *Te Whāriki* effectively implemented.
- More *registered teachers* in teacher-led services.

Services with high Māori and Pasifika enrolments and services receiving Equity Funding had higher levels for the intermediate outcome *Meeting language and cultural aspirations* in each year of the evaluation, even though somewhat different measures were used in 2009. Teacher motivation and professional development played a pivotal role for the services with high ratings.

Playcentres were the only parent/whānau-led services participating in the evaluation in 2009. The positive features of playcentre that marked playcentre as being different from teacher-led services were present in each evaluation year. Very good levels of relationships with parents were a feature for many playcentres. Playcentre had average actual ratios that were better than those found in other service types. These attributes do not emerge from the strategic plan but rather from the playcentre movement belief in the family/whānau as the child’s educators and parent contribution to the playcentre setting.

*Ratios and group size* did not change over the period of the evaluation. No strategic plan actions were taken to influence these aspects.

In what ways has the strategic plan enhanced quality?

### *Professional publications and professional development initiatives*

The most impressive findings were the large positive shifts on every indicator of teaching and learning practices and their association with a high usage of *Kei Tua o te Pae. Assessment for Learning: Early Childhood Exemplars*, professional development linked to assessment and *Te Whāriki*, a growing use of *Ngā Arohaehae whai hua. Self-review guidelines for early childhood education*, and inspiration from Centres of Innovation. These are strategic plan initiatives. The services that did not improve their ratings did not take up the opportunities presented or used the resources in a limited way.

### *Teacher qualification targets and initiatives*

The teacher qualification targets and initiatives have contributed to raising teacher qualification levels, particularly in teacher-led services that began in 2004 with few registered teachers. The initiatives, especially the Incentive Grant and TeachNZ scholarships were widely used. Use of the Support Grant for Provisionally Registered Teachers increased from 2006 to 2009 and helped services to support teachers to become registered.

### *Equity Funding*

The use of Equity Funding helped services that were receiving it to improve overall levels of quality, through spending available funding on staffing and curriculum resources. These were services located in low-income communities, services delivering the education programme in a language and culture other than English, and isolated services. This is consistent with other findings of the positive contribution Equity Funding expenditure makes to improved quality when it is spent on aspects to support the curriculum (Mitchell et al., 2006a).

### *Outcomes without current MOE policy initiatives*

Indicators of intermediate outcomes where policy initiatives had not been a focus, ie, reduced ratios and group size, and quality in parent and whānau-led services,<sup>13</sup> showed no consistent shifts from 2004 and 2006 to 2009.

### How effectively has the strategic plan enhanced quality?

The strategic plan has been effective in contributing to sustainable good quality ECE in a majority of services that took up various opportunities for teacher education and professional development and that accessed and used MOE professional resources. Three intermediate outcomes that had been the focus of MOE initiatives, “*Te Whāriki* effectively implemented”, “Quality teaching and learning practices” (assessment, planning, evaluation and self-review) and “More registered teachers in ECE” were associated with improved quality of ECE.

Services rated as ‘very good’ or ‘good’ quality had more ‘very good’ and ‘good’ ratings for indicators of these intermediate outcomes than services rated as only ‘fair’ or ‘poor’ quality.

**Table 50: Associations between overall quality and ‘good’/‘very good’ intermediate outcomes in 2009**

Very good/good intermediate outcomes	Very good quality (n=8) %	Good quality (n=13) %	Fair/poor quality (n=10) %
Assessment	100	92	80
Planning	88	92	40
Evaluation	50	69	50
Self-review	75	46	20
Understanding <i>Te Whāriki</i>	88	85	60
Bicultural curriculum	63	54	10

Some associations existed between ‘very good’ quality and the percentage of registered teachers in teacher-led services. Only those teacher-led services with 100% registered teachers, or holding 100% registered teachers at the time data was collected, were rated ‘very good’ quality in 2009. The ‘good’ quality centres were also more likely to have a high percentage of registered teachers. However, having registered teachers seems not to be sufficient on its own to ensure quality.

<sup>13</sup> Note: Playcentres had access to professional resources like teacher-led services, and those that were eligible received Equity Funding. Findings related to these initiatives apply to these parent/whānau-led services, too.

**Table 51: Associations between overall quality and percentage registered teachers in teacher-led services in 2009**

Quality level	100% registered (n=11) n	80-99% registered (n=3) n	50-79% registered - or less (n=9) n
Very good quality	4	1*	
Good quality	6	2	2
Fair/poor quality	1		7

\*This service had 100% registered teachers when the observations were made

The two playcentres with ‘very good’ quality in 2009 were distinguished from the others by having one or two adults holding course 4 qualifications and over half the other adults with course 1. One of these also had a parent holding course 3. The playcentres rated as ‘good’ quality had many adults holding courses 1 and 3. One had some adults with course 2. The playcentre rated as ‘poor’ quality had difficulties in recruiting a qualified supervisor and meeting the playcentre points system.

In summary, a key point of difference between services, which were low quality, and services of consistently high quality was the proportion of qualified and registered teachers in teacher-led services and of educators holding high level playcentre qualifications in playcentre. The findings indicate that the range and depth of MOE-funded professional development engaged in, and use of MOE published professional resources, have been effective in raising levels on the intermediate outcomes, which in turn relate to overall quality and outcomes for children. There is also less turnover of children and no spare capacity in the highly-rated services. These seem to contribute to greater stability for children and families and a more sustainable service.

Opportunities under the strategic plan were not being taken up by all ECE services. The logic model identified a risk of increased participation in poor quality ECE services to enable parents to engage in education, training and study. This emerged as a concern in this study, where three of the full-day education and care centres were rated as low overall quality and performed poorly on most intermediate outcomes in each of the evaluation years.



## 5. Enhancing collaborative relationships

### The evaluation question

*To what extent, in what ways, and how effectively has the plan facilitated the formation of collaborative relationships between ECE services, parent support and development, schools, health and social services?*

Stronger collaborative relationships was a strategic plan goal, with two intermediate outcomes: coherence of education from birth to age eight, and integrated services for children, parents, families, and whānau 0-8. Intermediate outcomes are described in the intervention logic model as outcomes that should be strengthened through strategic plan actions and that would contribute to meeting strategic plan goals and ultimate outcomes. Stronger collaborative relationships are portrayed as strengthening and empowering families to play a significant role in their children's early education and development, and increasing capacity to engage in other community activities, as well as contributing to the ultimate outcome of children developing strong learning foundations.

Actions to support coherence of education were initiatives to:

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

Actions to support provision of more integrated services included:

- interagency work between MOE, Health and MSD 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.

Specifically, in 2006, MSD announced three year funding for 10 pilot projects for ECE services offering parent support and development from their service. These were extended to 16 in 2007.

*Kei Tua o te Pae. Assessment for Learning: Early childhood exemplars* contains exemplars of how assessments include and construct a learning community that invites the participation of children, families, whānau, teachers and beyond (Ministry of Education, 2005c). Professional development was linked to these exemplars over the years 2006 to 2009. One Centre of Innovation explored transition to school and disseminated findings about its practice to a wide audience through presentations, articles and reports (Hartley, Rogers, Smith, Peters, & Carr, 2010; Peters, Hartley, Rogers, Smith, & Carr, 2009a, 2009b).

The New Zealand Curriculum, published in 2007, includes five 'key competencies' which fairly closely align to dispositional outcomes and the sociocultural framing of *Te Whāriki*.

*“More complex than skills, the competencies draw also on knowledge, attitudes, and values in ways that lead to action. ... opportunities to develop the competencies occur in social contexts. People adopt and adapt practices that they see used and valued by those closest to them, and they make these practices part of their own identity and expertise.”* (Ministry of Education, 2007b, p. 12)

Teachers in early childhood education settings and schools can now draw on this alignment in children’s transitions practices and policies.

## Dimensions of collaborative relationships

Data were collected on two dimensions of collaborative relationships:

- *More integrated services for children, parents, and families.* The strength and quality of relationships between ECE services and parents/whānau, health services and social services, were examined. The focus on relationships with parents was on partnerships that support pedagogical aims. We also examined relationships with local marae/iwi authority/urban Māori authority/taura here group<sup>14</sup>, and with Pasifika organisations.
- *Cohesion of education 0–8 years.* Relationships between ECE services and with schools were assessed from the perspective of ECE teachers/educators in relation to supporting coherent educational approaches.

### More integrated services for children, parents and families

#### *Relationships between ECE services and parents/whānau*

Constructive working relationships between parents and teachers can enhance adults’ understanding of children’s learning and learning opportunities and so contribute to learning and well-being in both settings. Children who see their parents working closely together with their teachers “gain a sense of continuity and of being cared for” and experience a “trusting and secure environment in which they can learn and grow” (Whalley & the Pen Green Centre Team, 2001).

The *Effective Provision of Pre-school and Primary Education* project provided strong evidence about the importance of child characteristics, parent characteristics and the home learning environment for children’s developmental outcomes (Melhuish, 2010). It showed the value of developing a relationship between teachers/educators and parents based on shared educational aims (Siraj-Blatchford, 2010). A key finding was that excellent settings “shared child-related information between parents and staff, and parents were often involved in decision making about their child’s learning programme” (Siraj-Blatchford et al., 2003, p. vi).

Sharing pedagogical aims and practices between families and teachers is one way to strengthen the consistency of interactions and environment and to support children’s learning and development. In New Zealand, a new regulatory framework for ECE services came into force on 1 December 2008. The curriculum standards require every licensed provider to plan, implement and evaluate a curriculum that “respects and acknowledges the aspirations of parents, family, and whānau” and “make all reasonable efforts to ensure that the service provider collaborates with the parents and, where appropriate, the family or whānau of the enrolled children in relation to the learning and development of, and decision making about, those children” (Ministry of Education, 2008).

Before that date, the Desirable Objectives and Practices (DOPs) required ECE services to work in partnership with parents/guardians to promote and extend the learning and development of each child who attends the service.

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<sup>14</sup> A taura here group has a common interest in education.

*Kei Tua o te Pae. Assessment for learning: Early childhood exemplars*, a series of assessment exemplars published in 2005, 2007 and 2009, examine and exemplify how assessments can draw on parents' knowledge of their own child, and how this knowledge is useful in planning for learning, whether at home or in the ECE setting. *Te whatu pōkeka. Kaupapa Māori assessment exemplars* was published in 2009, after data for this study was collected.

In this section we examine relationships between parents and teachers/educators that could support a child's learning and participation.

#### *Overall quality of service relationships with parents*

Services were rated as 'very good', 'good', 'adequate' or 'poor' in relation to their level of service-parent relationships. In 2009, 87% of the services were rated as 'adequate' or better. An adequate rating means that many, but not most or all parents, reported that they talked with teacher/educators about their own child's progress, behaviour and well-being, they found this communication was useful and they contributed to assessment and planning for their own child.

The number of those reaching 'good' or 'very good' levels quadrupled over the years 2004 to 2006, from three (9% in 2004) to ten (32% in 2006) to 12 in 2009 (38% in 2009).

**Table 52: Quality of relationships with parents in 2004, 2006 and 2009**

Year	'Very good' n (%)	'Good' n (%)	'Adequate' n (%)	'Poor' n (%)
2004 (n=32)	2 (6)	1 (3)	18 (56)	11 (34)
2006 (n=32)	5 (16)	5 (16)	19 (59)	3 (9)
2009 (n=32)	7 (22)	5 (16)	16 (50)	4 (13)

Seven services moved from 'poor/adequate' ratings in 2006 to 'good/very good' ratings in 2009 and five services moved down to adjacent ratings.

In summary, the main shift upward was between the years 2004 to 2006. This was largely owing to improvements in ratings for parent participation in planning and assessment. In 2006, teachers attributed this to using *Kei Tua o te Pae* use of ICT to communicate about learning with parents and professional development. By 2009, all but one service was using *Kei Tua o te Pae*, although four services were not using it extensively.

#### *Service relationships with parents—specific items*

Overall, parents were very positive about their ECE service in all three years of the evaluation:

- Parental overall satisfaction with their ECE service rose from 2004 to 2009. Sixty-five percent said their overall satisfaction was 'very good' in 2004, compared with 68% in 2006 and 70% in 2009. Most other parents rated their overall satisfaction as 'good' (26% in 2004, 25% in 2006 and 22% in 2009).
- Most parents (94%) always felt welcome at their ECE service in 2009, much the same as 2006 (93%) and 2004 (92%).
- In 2009, 82% of parents thought they got enough information about their child's progress (85% in 2006, 82% in 2004).
- In 2009 there was a slight decrease in parents' ratings of the usefulness of information they received. Parents found 'very useful' the information they received about how settled and happy the child is (58% in 2009, 63% in 2006, 62% in 2004), the child's interests and abilities (48% in 2009, 54% in 2006, 51% in 2004), the child's progress (46% in 2009, 52% in 2006, 50% in 2004), the child's learning programme (39% in 2009,

46% in 2006, 43% in 2004) and the early childhood curriculum (26% in 2009, 31% in 2006, 30% in 2004). There were no service type differences. It may be that in 2009 parents were more aware of how they might contribute to their child's learning and development and had a better appreciation of what they might want from their ECE service.

- Involvement in planning and assessment increased markedly over the evaluation period. In 2009, 60% of parents were taking part in planning and assessment for their child's learning, considerably more than in 2006 (47%) and 2004 (36%). More playcentre parents (80%) and fewer Pasifika parents (43%) and home-based parents (43%) were involved in these aspects. The most common ways of being involved were through teachers and parents giving information and feedback for their child's portfolio/profile and providing comment for learning stories.

### *Levels of ECE service:parent relationships and localities, services and children*

In this section we make comment only where there are differences, or expected differences are not found.

#### *Service differences*

Differences in ratings of ECE service:parent relationships related to service type. In 2009, two playcentres, one Pasifika service, one Early Intervention education and care centre, one education and care centre and one home-based service were rated highest on levels of relationships with parents. None of the kindergartens were rated as 'very good' in any of the evaluation years. These also tended to have more families and poorer ratios, perhaps making it harder to gain high ratings. None of the playcentres were rated 'poor'. Playcentres, which are parent/whānau-led, have high levels of parent involvement in all aspects of the playcentre.

#### *Child characteristics*

None of the four child characteristics we analysed (proportion of children attending the service who are Pasifika, proportion who are Māori, proportion aged under-two-years, the service receiving Equity Funding) were linked to the quality of the relationship with parents. Relationships with parents in services that had over 20% under-two-years varied in each year of the evaluation from 'very good' to 'poor'. In 2009, four were rated 'very good', three were 'good', eight were just "adequate" and one was 'poor'. Close communication with parents about very young children is especially important for sensitive and responsive education and care.

The Stage 1 report (Mitchell & Hodgen, 2008) commented on a service with 'poor' ratings in both 2004 and 2006. It was a service with a high number of families for whom English was an additional language. Management from this service said educators wanted cultural support to help them work with these families and the service was under other pressures from high turnover of parents. In 2009, the service had 'good' ratings. Management said many of the children attending this service were from out of the immediate locality and were no longer from non-English speaking homes. A separate report examines responsiveness to language and cultural diversity (Mitchell & Meagher Lundberg, In preparation).

#### *What parents like best about their ECE service*

The qualities of teachers/educators, a positive welcoming environment and the child's happiness and feelings of security were what parents liked best about their ECE service. These were the same top characteristics that parents in 2006 and 2004 identified in response to an open question. Notably, parents focused most on effective characteristics of staff, such as being warm and caring, friendly and approachable.

*"Wonderful, friendly, happy atmosphere. All children appear to be settled and enjoy being there. Teachers friendly and caring."* (Kindergarten parent)

*“It’s very friendly, I always feel welcome and I’m always welcome to hang out as much as I like, which I do!”* (Education and care parent)

*“He is happy there and it makes it much easier to leave him and go to work.”* (Education and care parent)

Opportunities for their child’s learning and the range of ‘activities’ were the next most frequently described ‘best’ characteristics:

*“Guitar playing, singing, all the inspirational stuff around otherwise drab boring building, options for my child—playdough, computers, blocks etc.”* (Education and care parent)

*“That she learnt social skills, cultural and language skills.”* (Playcentre parent)

Opportunities to interact with other children, including children from a range of cultural backgrounds, and to develop socially were also identified:

*“My child has opportunity to mix with other kids her age.”* (Kindergarten parent)

Playcentre parents were distinctive in emphasising learning and support for parents and for children, and the active role of parents as educators:

*“Parent involvement, being a parent co-op, it has a very family feel. I’m able to be there with her, to learn and play alongside her.”* (Playcentre parent)

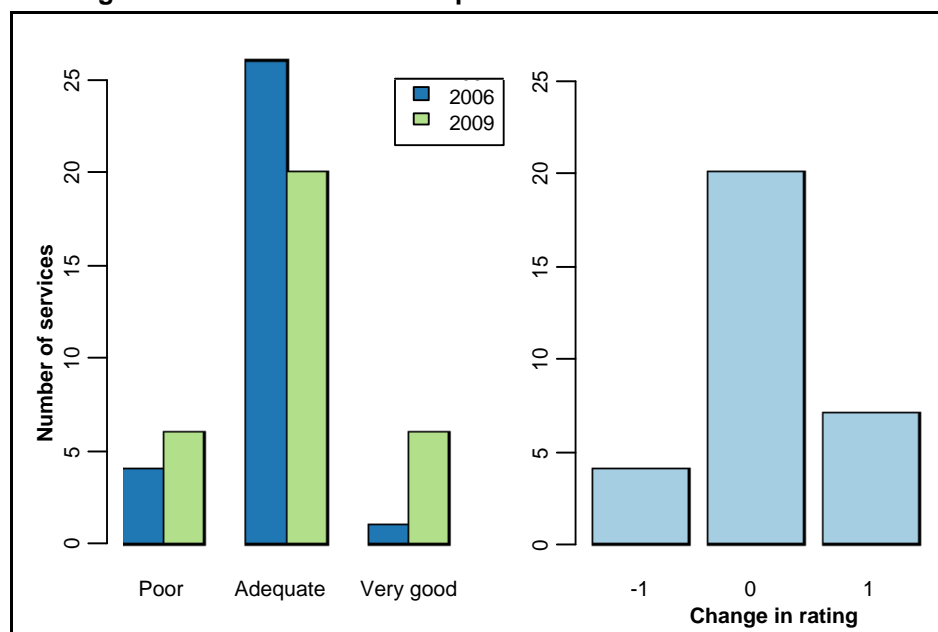
*“Parent co-op. It’s important for parents to see child’s learning and development.”* (Playcentre parent)

#### *Relationships with health and social services*

Information was gathered on indicators of relationships with health and social services in 2006 and 2009.

*Relationships with health services* improved over the evaluation period. Six services had ‘very good’ relationships with health services in 2009 compared with only one in 2006.

**Figure 11: Changes and levels of relationships with health services in 2006 and 2009**



Overall, relationships with health services were 'adequate'. This meant that in most services health professionals visited to check children's health (but only if a visit was requested) health professionals talked to parents but this was infrequent, and ECE services made referrals to health services.

The most common reason for not having a close relationship with health services was that the health services were themselves too busy. Several participants commented on their wish for greater support from Group Special Education. In one rural locality, the kindergarten head teacher said the Before School Check had reduced the kindergarten's ongoing contact with vision and hearing technicians.

Playcentres had the poorest relationships with health services. Three of the eight playcentres were rated as 'poor' in this relationship in both 2006 and 2009. One of these playcentre managers commented that most parents did not come from the community where the playcentre was located. This was a hindrance to developing relationships in the community. As well, many parents felt that they already put in a great deal of time in running the playcentre on a daily basis. No other service types had 'poor' ratings in both years.

*Relationships with welfare services* were mixed, ranging from 'very good' to 'poor'. The range was similar to what was found in 2006. Around 58% in each year were rated as 'poor' and only 26% were rated as 'very good'. In a 'very good' relationship, the ECE service management understood the nature of welfare services, had information pamphlets about them and welfare representatives sometimes visited the service. Welfare services referred children to the ECE service and the ECE service made referrals where appropriate.

The most common reasons for not having contact with welfare services were because service managers did not know what welfare services were available in their locality or they did not know how to make contact. A kindergarten head teacher commented that the professional development organised by the association had helped her to understand what welfare services were available and processes to follow. The low ratings and lack of knowledge about welfare services and how to contact them suggest that proactive education by the welfare services for ECE services in a locality might be helpful.

More services in urban localities had 'very good' ratings with welfare services (particularly Pōhutukawa and Kōwhai) than did services in minor urban localities. Pōhutukawa is a locality where the local authority is working with the Government in a multi-agency urban renewal programme. A partnership exists between central government agencies, local government, the community and the private sector and aims to provide cohesive and responsive services. In Pōhutukawa and Kōwhai, MSD were delivering Family Start, Parents as First Teachers (PAFT), Home Instruction Programme for Preschool Youngsters (HIPPY), Early Years Service Hubs, Family Service Centres and Teenage Parent Service Coordinators.

In 2009, two managers in one locality (Kauri) commented on the usefulness of pamphlets and resources for whānau. Similarly, a home-based service in 2006 had used SKIP (Strategies for Kids-Information for Parents) and found it useful for caregivers and educators. SKIP was launched in May 2004 through MSD. It develops resources for community organisations and parents/caregivers aimed at positive parenting.

Only two ECE service managers commented on the value of MSD Parent Support Initiatives, fewer than the five in 2006. Three managers in 2009 stated they did not know what the initiatives were, they made no difference to them or they were not available in their locality.

#### *Relationships with local marae/iwi authority/urban Māori authority/taura here group*

In 2006 and 2009, we asked about relationships with local marae/iwi authority/urban Māori authority/taura here group.

There were stronger connections in 2009. Twenty-four services (75%) had contact with local marae, up significantly from three services in 2006 (10%). The most common contact in 2009 was for the ECE service to join in cultural experiences (nine services, 30%). Kaumātua visited eight of the ECE services and five service managers said they regularly visited the marae. Three services had a member on the marae committee.

Support from umbrella organisations helped.

*“The association has a group called [Name] which supports our Māori families. This also applies to local iwi.”* (Playcentre management)

*“[Our] Playcentre Association has a bicultural group called [Name] which helps us to organise marae visits and join in cultural experiences outside Playcentre.”* (Playcentre management)

*“Barnardos undertakes cultural supervision once a month plus visits the local marae. Very important to Barnardos.”* (Home-based coordinator)

*“Our Kaimahi Māori visits the centre regularly. We can contact her with any queries.”* (Kindergarten head teacher)

Others initiated contact themselves, eg,

*“We invite the local marae members to our centre and have had two blessings so far for new areas in our centre.”* (Education and care supervisor)

Several participants commented on their desire for support for developing relationships with local kōhanga reo, kura, iwi and marae. They expressed uncertainty about what to do, their own limited knowledge and who to approach.

*“We know that there are protocols to this—but don’t know what they are. Really need someone to support us to do this.”* (Education and care supervisor)

#### *Relationships with local Pasifika groups or organisations*

Six services had contact with Pasifika groups or organisations in 2009, up from only the two Pasifika services in 2006. In four services a Pasifika member was represented on their organisation or group. Other forms of contact were a Pasifika elder visiting the service (three services), the ECE service joining in cultural experiences (two services), the ECE service visiting the group or organisation (two services) or making contact with a resource organisation (one service).

Most of those who did not have contact said they did not know what organisations or groups were in their locality. Some stated they did not have children from Pasifika families.

#### **Supports for and barriers to change in ECE service collaborative relationships**

Teachers’ comments about MOE professional resources, discussed in Chapter 5, show that these resources have supported teachers to involve parents and whānau in teaching and learning practices. As was the case in 2006, a challenge is for teachers to engage all parents in these practices. It may be harder if parents do not come to the centre during the day, are a non-custodial parent, have had negative experiences of education services themselves that inhibit participation or experience language cultural, or class differences with teachers. Whalley and the Pen Green Centre Team (2001) have discussed ways to work with different parents.

The most common suggestions from managers for enhancing collaborative relationships with other services and organisations were for easier access to services (especially Special Education), greater cohesion between services and integration within services and networking within communities.

**Table 53: Suggestions for enhancing collaborative relationships**

Suggestions	Comments
Easier access	"Having all services mobile and in one place every 1-2 months in rural communities. Include all services." (Playcentre management) "More access to speech-language therapists. More hours from special education for children who have behaviour issues." (Kindergarten head teacher)
Cohesion and integration	"Perhaps we could look at campus situations where primary, secondary and early childhood have a shared campus. Seamless education. Being in the grounds of a secondary school is fabulous having access to many facilities – ie, fields, gyms, library, music and expertise to name but a few." (Education and care centre supervisor) "There needs to be more cohesion between health, education and social services. More opportunity for dialogue, discussion and implementing project initiatives." (Kindergarten head teacher)
Networking	"Community networks with child-focused organisations." (Home-based management)

Several managers wrote that there needed to be incentives or formal structures to improve networking. This was similar to the view of managers in 2006 that collaborative relationships will not be significantly improved without external support.

*"We were involved in a transition to school initiative that the MOE helped with, but funding stopped and so did the meetings."* (Kindergarten head teacher)

*"MOE needs more hands-on approach to getting people working together. Could be funding level to get people to do it. No reward for working together."* (Kindergarten head teacher)

*"Funding for our service to reach out."* (Pasifika centre management)

*"Training workshops to give ideas of being more collaborative."* (Education and care manager)

### Cohesion of education 0-8 years

The strategic plan focuses on ECE and primary school teachers developing greater understanding about each other's pedagogical approaches and curriculum and finding out about effective transition practices. Linkages between ECE services may also offer opportunity for professional support.

We asked management to fill in a questionnaire about their service's relationships with other ECE services and schools. Questions were asked by interview in 2004 and by questionnaire in 2006 and 2009. Where we can, we have made comparisons with the 2004 evaluation data and the 2003/2004 and 2007 NZCER national surveys.

#### *Relationships with other local ECE services*

Relationships with other ECE services have improved since 2006. The improvement in relationships is towards a pedagogical focus. The main relationships in 2009 were sharing training/professional development (15 services, 47%). In 2006, the main relationship was social contact (13 services) and only eight services shared training/professional development.

The extent to which teachers shared information about children attending two or more ECE services improved between 2006 and 2009. Twelve services reported doing this, up from four services in 2006. The shift is important in light of the high incidence of children attending more than one ECE service (29% of this sample) and the needs of children for continuity between the main people in their lives. Dencik (1989) and Prout (2003, 3-6 September) have both referred to the process of 'dual socialisation' where children spend time outside the family and need to relate to more than one social network. Children need to make 'flexible adjustments' between one environment and another and as environments shift in time. Children need to make sense of different values and perspectives.



Competition between ECE services was experienced by education and care and home-based providers. Seven (64%) education and care service managers and one (50%) home-based provider characterised their relationship as involving 'some competition'. This was the same number as in 2006.

Nine ECE services in this sample had no or limited contact with other ECE services in their locality, fewer than in 2006 (13 services).

The strategic plan has helped ECE services strengthen professional relationships with each other. In 2009, 14 ECE service managers commented on the formal networks that have helped them develop collaborative relationships. These included professional development clusters, IT networks, a collaborative project and formal ECE networks in some localities. Additionally, services with an umbrella organisation met together regularly. Similar comments were made in 2006. These opportunities were not visible in 2004, when the main impetus for teachers working together was through the service umbrella organisations. Two managers commented that having a liaison person to organise networks helped.

According to managers, the greatest barrier to forming collaborative relationships with other ECE services was competition, followed by insufficient time. Forty-eight percent of managers stated competition between ECE services was a barrier compared with 25% in 2006.

#### *Relationships with local schools/kura*

Professional relationships with local schools steadily improved from 2004 to 2006 to 2009. Four of the ECE services had no or limited contact with the schools/kura in their locality, compared with nine in 2006 and 15 in 2004.

However, while more ECE services were having contact with local schools/kura, they were not able to have this contact with every school/kura. Half had no or limited contact with some of the local schools and all but one had no or limited contact with at least one local school. This was similar to 2006 findings.

ECE services and schools were more likely to share professional development and curriculum ideas in 2009. One participant described the connections between the schools and early childhood curricula as influencing the relationships in 2009.

*"Recognition of value. Common interests/curriculum areas."* (Kindergarten head teacher)

In 2009, 21 ECE services shared information about children with at least one of the schools in their locality (21 in 2006), 20 services regularly visited schools and arranged transition visits (14 in 2006) and 11 shared professional development with schools (four in 2006).

Interesting measures were being taken to support transition to school. One school picked up children from the Pasifika centre in its van to make visits to the school. Children from the Early Intervention education and care centre kept the same Resource Teacher: Vision until the age of eight. This offered the child continuity in relationships and enabled the Resource Teacher: Vision to gain deep understanding of the child and family. Teachers from a centre catering for children from refugee families usually visited the school with the families, using their bilingual staff as language support and helping families fill in forms. An education and care centre established a formal transition to school programme with the closest school. A kindergarten was planning to use Equity Funding to enable teachers to accompany children on morning visits to the school. An education and care centre located in school grounds had reciprocal visits during the day, used the school library once a week and used the school playground.

The main barrier to strengthening relationships was insufficient time. The other main barrier was children attending many schools. A few said that schools do not want to build a relationship. These were similar to the barriers identified in 2006.

## **To what extent, in what ways, and how effectively has the strategic plan facilitated the formation of collaborative relationships?**

The strategic plan aimed to enhance collaborative relationships between ECE and families/whānau, ECE and other family services, and ECE and schools. Strategic plan actions to support this goal were MSD parenting initiatives, assessment for learning exemplars and professional development, and Centre of Innovation dissemination of research findings and practice examples. Another government initiative, although not emerging from the strategic plan, was the publication of the New Zealand Curriculum, which includes key competencies that link to dispositional outcomes of *Te Whāriki*. ECE services, within their own local communities, are expected to develop community relationships.

### **More integrated services for children, parents and whānau**

#### *Relationships with parents*

Steady improvements from 2004 to 2006 to 2009 were found in overall relationships with parents, the percentage of parents participating in assessment and planning and parents' overall satisfaction with their ECE service. The focus within MOE professional resources and associated professional development on finding out about and using families' 'funds of knowledge' and families contributing to assessment, planning and evaluation appear to have contributed to these positive shifts. The main catalysts have been *Kei Tua o te Pae. Assessment for learning: Early Childhood Exemplars* and associated professional development, and examples from Centres of Innovation.

#### *Relationships with health and social services*

Relationships with welfare services were mixed, ranging from 'very good' to 'poor', similar to what was found in 2006 and 2004.

This intermediate outcome goal is not supported with any particular strategic plan actions. It appears dependent on the efforts of individuals or ECE service support management making connections or of community services reaching out to ECE services. Notably, in the localities where services improved their ratings with welfare services, central and local government, local body, community and private business had formed partnerships to strengthen urban renewal. The findings from this evaluation suggest that reliance on individuals alone will not be sufficient to generate a widespread strengthening of relationships with external health and welfare services.

#### *Relationships with local marae/iwi authority/urban Māori authority/taura here group*

There were stronger connections with local marae in 2009 compared with 2006. Some services were supported to make these connections by their service umbrella organisation. The only strategic plan initiatives to support these relationships was the focus within *Kei Tua o te Pae. Assessment for Learning: Early childhood exemplars* on relationships with community.

#### *Relationships with local Pasifika groups or organisations*

Relationships with Pasifika groups or organisations showed marginal improvement from 2006 to 2009. Four general ECE services and the two Pasifika services had some form of contact in 2009, up from only the two Pasifika services in 2006. Most of those who did not have contact stated they did not know what organisations or groups were in their locality, suggesting that external support would assist.

### **Cohesion of education birth to eight**

#### *Relationships with local ECE services*

Relationships with local ECE services have become more focused on pedagogy. Fifteen services shared training/professional development in 2009 compared with six in 2006.

The extent of ECE services sharing information about children attending two or more ECE services increased from four services in 2006 to 12 services in 2009. The shift is important in light of the high incidence of children attending more than one ECE service (29% of this sample) and the needs of children for continuity between the main people in their lives.

Strategic plan and ECE service initiatives appear to have helped ECE services appear to have strengthened professional relationships with each other. According to ECE service managers these are professional development clusters, IT networks, and a collaborative project and formal ECE networks in some localities. Additionally, services with an umbrella organisation met together regularly. These opportunities were not visible in 2004, when the main impetus for teachers working together was through the service umbrella organisations. One of the values of meeting with other teacher/educators in professional forums is that the focus on teaching and learning enables service participants to learn from each other within their own locality and to make useful connections.

### *Relationships with schools*

Professional relationships with local schools have improved. In 2009, four of the ECE services had no or limited contact with the schools/kura in their locality, compared with nine in 2006 and 15 in 2004.

ECE services and schools were more likely to share professional development and curriculum ideas in 2009. The new school curriculum is enabling at least one service to make curriculum linkages with local schools.

Transition to school has been explored through an MOE-funded Centre of Innovation Project (Hartley et al., 2010; Peters et al., 2009a, 2009b), as well as external New Zealand research and writing (Carr, 2006; Carr et al., 2010). Although outside the time-frame for this evaluation, an MOE commissioned review of literature has recently been published (Peters, 2010). Perhaps the higher level of professionalism in ECE and the focus on the importance of ECE and of transitions has contributed to greater awareness of the importance of transition for both ECE and primary teachers.



## 6. ECE and paid employment and training

### The evaluation question

*To what extent, in what ways, and how effectively has participation in ECE supported parents' ability to engage in work and training?*

### Dimensions of employment and training

ECE and paid employment and training were new evaluation aspects in 2006. We gathered the same data in 2006 and 2009 from parent survey responses that asked about childcare arrangements of parents and how well these suited parental needs. Some of the questions were adapted from the Department of Labour and NACEW (1999) *New Zealand Childcare Survey 1998*. In this chapter we analyse this data from the 32 services in the study, and identify change over 2006 and 2009, and relate ECE participation to engagement in paid employment and training.

#### Parents' employment and study arrangements

Sixty percent of parents in 2009 had engaged in paid employment at any time in the last 12 months, a similar proportion to the 2006 survey (56%). The majority of parents using education and care centres and home-based services and over half the Pasifika parents were in paid employment in each year. Around half the parents with children enrolled in kindergarten and a third of the playcentre parents were in paid employment, although these percentages were somewhat higher for playcentre in 2006.

**Table 54: Percent of parents in paid employment by service type in 2006 and 2009**

Year	Education & care	Home-based	Kindergarten	Pasifika	Playcentre	Total
2006 (n=628)	77	64	58	64	55	65
2009 (n=595)	74	95	52	64	35	60

Fewer parents had taken part in training or study at any time over the last twelve months (27% in 2009, 29% in 2006). In 2009, 51% of playcentre parents had engaged in training or study compared with around 25% of parents using each of the other service types. There was a similar, although less marked, differential in 2006. The higher proportion probably reflects the active encouragement by playcentre for all adult participants to take part in the Playcentre Qualifications and Training Programme.

The most common childcare arrangement while parents worked or studied were education and care centres. These were used by around 40% of parents in both 2006 and 2009. Fewer parents used partners, a member of whānau or friend in 2009, suggesting that formal ECE arrangements may be replacing these informal arrangements. Use of kindergarten as a childcare arrangement was also considerably lower amongst respondents in 2009 (19%) compared with 2006 (29%). This may seem puzzling since most kindergartens in the study had lengthened their session times, which could be attractive to parents wanting to work or study.

**Table 55: Childcare arrangements for parents in paid work**

Childcare arrangement	2006 (n=353)			2009 (n=313)		
	Part-time (n=242) %	Full-time (n=111) %	Total (n=353) %	Part-time (n=208) %	Full-time (n=105) %	Total (n=313) %
Education and care	37	53	42	39	40	40
Partner	45	34	42	29	26	28
Member of whānau	34	24	31	32	24	29
Kindergarten	33	21	29	20	17	19
Home-based ECE	10	8	9	14	15	14
Friend/neighbour	13	12	12	10	8	9
Playcentre	5	2	4	10	11	10
Pasifika ECE	1	4	2	-	3	1
Playgroup/puna		7	3	1	2	1
Te kohanga reo	-	-	-	-	-	-

Note: multiple responses are included so percentages do not add to 100.

Overall, in both 2006 and 2009, ECE services<sup>15</sup> were being used by three-quarters of families for their childcare arrangements while parents were working or studying. There was a decline in the use of family/whānau<sup>16</sup> from 65% in 2006 to 56% in 2009.

The combining of ECE and non-ECE arrangements while parents are working or studying is common but becoming less so. In 2006, 54% of parents who were employed or studying combined ECE with non-ECE for their childcare arrangements. In 2009, 41% of parents combined care arrangements.

Parents commonly used more than one ECE service for their childcare arrangements but multiple use of ECE decreased between 2006 and 2009, suggesting ECE services were better aligned to parents' working/study arrangements in 2009.

**Table 56: Use of more than one ECE service while parents working/studying in 2006 and 2009**

Year	One ECE service only %	Two services %	Three services %	Four or more services %
2006 (n=353)	37	34	22	7
2009 (n=313)	49	33	14	4

Average hours of ECE use while the parent was working or studying were higher in 2009 than 2006 for parents from every service type. This could reflect the fact that ECE services were more commonly used for employment/study needs in 2009.

<sup>15</sup> Combining use of all ECE service types.

<sup>16</sup> Combining use of 'partner', 'member of whānau', 'friend/neighbour'.

**Table 57: Average hours of ECE service use by service type while parents working/studying in 2006 and 2009**

Year	Education & care		Kindergarten		Playcentre		Home-based		Pasifika	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
2006 (n=325)	28	17	11	11	6	5	19	16	29	29
2009 (n=313)	38	17	18	14	26	14	27	14	40	19

### Demand for ECE and care arrangements

We asked parents who had been in paid employment or training/study in the last 12 months about their demand for ECE and care arrangements, accessibility and disruptions to arrangements.

In 2006, the main unmet need for ECE and care while parents were in employment or training/study was for different times to be available (10%). The situation was similar in 2009 with 9% noting that services were not available at times they required.

*“There is no flexibility to hours available, either 30 or 40 hours, 9-3 [or], 7-5.”* (Education and care parent)

In 2006, and again in 2009, 4% of parents in employment or training/study said that while times did not suit, they managed. The types of changes parents wanted both in 2006 and in 2009 included longer hours, earlier times, more flexibility in hours and school hours.

One of the main comments from those who wanted different times to be available was about the need for longer hours. Kindergarten parents, in particular, spoke about the need for extended hours at the beginning or end of the day to fit with their employment or study arrangements:

*“The childcare centre I use as well as this ECE could be open a bit longer—an extra half hour or so.”*  
(Kindergarten parent)

*“Opened till maybe 2pm each day, would be great, fit into more hours of work.”* (Kindergarten parent)

A common theme, in 2006 and again in 2009, from kindergarten parents who were working or studying was that they would like kindergartens to operate a school day:

*“Would be great to have kindy [the] same hours as school.”*

*“In the school holidays I am still in full time study so I have to make other arrangements. Also, because the service is only open till 12.30pm I have to do a pick up and drop off, and pay another childcare service. If kindy was open school hours I would use all those hours at kindy.”*

As in 2006, some parents responding to the 2009 survey who were working shift work, evenings and/or weekends used partners and whānau for childcare, sometimes in combination with paid care. There was no expectation that services would cover evenings and weekends:

*“I also work evening/night/weekend shifts but do not expect ECE to have after-hours services. My partner cares for child at these times.”* (Education and care parent)

Parents, particularly those using education and care centres, which closed during holiday periods, did, however, comment on the need for care during school holidays:

*“Would be great to have it continue during school holidays.”* (Sessional preschool parent)

*“No Christmas holiday cover—including New Year.”* (Education and care parent)

Some parents viewed ECE for their child and care arrangements as two separate things and arranged their work and study to suit the hours their child attended an ECE service.

*“Not all the time, but I generally arrange my work and study around my child's hours.”* (Kindergarten parent)

*“We send our son to kindy just as we did. It is not for time out for us or while we are at work ... to us it is just part of his development.”* (Sessional preschool parent)

Playcentre parents noted that training required evening participation and so required care outside ECE service hours:

*“Training that I do happens at night and is courses that need to be met for playcentre.”*

### Accessibility

Most ECE and care arrangements in both 2006 and 2009 were close to the parents' homes. In 2006, 51% of parents used arrangements that were close to parents' homes and 52% in 2009. Use of ECE and care arrangements close to work or training/education institutions was also common with 19% doing so in 2006 and 21% in 2009. The definition of 'close' was decided by the respondent.

Some of the reasons parents liked the ECE service to be close to home was so that partners or other family members could share the 'pick-up', so the child did not need to spend time travelling and parents wanted their child to form relationships with children in the community:

*“It's close to home which is more important for his friends etc—than being close to my work.”* (Education and care parent)

*“We want it close to home so partner can collect children at end of day. He goes home first, from work. I only work one day a week, so close to home is more important for us.”* (Kindergarten parent)

*“... it works well with my partner who drops our child off each morning and we share the 'pick up'. He will do it if I am a little late getting home from work. It would be inconvenient if our child was in care near my work as I would have to take her when I left in the morning at 6.30am which would be an early start for her and a lot of travelling.”* (Home-based care parent)

Some parents commented that the location of the ECE and care arrangements was a compromise between being close to home and close to work, with a few parents in rural areas noting that it was easier to use an ECE service close to siblings' schools:

*“Midway between home and work.”* (Education and care parent)

*“Find it more convenient to have childcare facility close to school (older child at) and for drop offs and pick-ups!”* (Education and care parent)

Some parents chose not to use an ECE service close to home because they had shifted area and did not want to move the child to a new service:

*“We moved out of the area but kept our child at the first ECE provider due to affordability and familiarity and satisfaction with the centre. Also, we didn't want to be on another centre's waiting list.”* (Kindergarten parent)

*“Recently shifted but still love the preschool so we have a wee extra distance to travel.”* (Education and care parent)



Of the 10% of parents who did not think the location of their ECE service was convenient most were rural parents or lived some distance out of town and the distance was unavoidable.

*“I live out the beach and the centre is based in town.”* (Education and care parent)

*“We live rurally so my work is farm-based and I have to travel into town to access ECE”* (Education and care parent)

#### Disruptions to regular arrangements

Around a quarter of parents (23% in 2006, 25% in 2009) experienced disruptions to their regular arrangements that affected their paid employment or training/study. A higher percentage of parents using education and care centres and home-based services experienced disruption (37% and 58% respectively in 2009) but they were also the parents most commonly using ECE while they worked or studied. The most common reason was the same in 2009 as in 2006, that the parent’s child was sick (20%). Other common reasons were services closing during holidays or being temporarily closed and the unavailability of the usual caregiver.

#### Access to ECE and care as a barrier to paid employment and training/study

In 2006 and 2009, we asked all parents about access to ECE and care as a barrier to employment and study. In 2006, 50% of parents did not respond and in 2009 51% did not respond. These would include parents already in employment/training.

There was a slight reduction in the percentage of parents stating lack of a suitable ECE arrangement was the only or an important reason for parents not looking for a job (15% in 2006, 13% in 2009), turning down a job (12% in 2006, 9% in 2009) or leaving a job (5% in 2006, 4% in 2009). The Department of Labour and NACEW (1999) *New Zealand Childcare Survey 1998* found lack of a suitable ECE arrangement prevented 15% of parents from looking for a job. However, their survey included parents who were not currently using ECE.

For those parents who said lack of an ECE arrangement affected their paid employment, the main reasons why a suitable arrangement could not be made were cost, the lack of hours at the times required and no spare places. The barriers had reduced in 2009 with respect to cost, hours and choice of service type but increased with respect to spare places.

**Table 58: Reasons a suitable ECE and care arrangement to support parent employment could not be made**

Reasons for not making ECE and care arrangements	2006 (n=289) %	2009 (n=260) %
Cost	20	11
Did not cover hours needed	18	14
No spare places	10	14
No suitable ECE in locality	8	5

The reductions in barriers is likely to be attributable to government policy changes during the last three years, especially the funding initiatives aimed at reducing costs to parents and responsiveness of services to the employment and training needs of parents.

Access to suitable ECE as a barrier to participation in employment has eased since the Department of Labour and NACEW (1999) *New Zealand Childcare Survey 1998*, study. In this evaluation:

1. Nine percent of parents reported problems in accessing ECE to undertake paid employment in both 2006 and 2009 compared with 14% of mothers and 3% of fathers in the *New Zealand Childcare Survey 1998*
2. Lack of suitable ECE continued to prevent a small percentage of parents from changing the hours they regularly did study or training (3%) and made parents leave study/training (2%).

## **To what extent, in what ways, and how effectively has participation in ECE supported parents' ability to engage in work and training?**

To what extent has participation in ECE supported parents' ability to engage in work and training?

ECE was supporting parents to engage in work and training. Overall, in this evaluation, ECE services<sup>17</sup> were being used by three quarters of parents for their childcare arrangements in both 2006 and 2009. There was a decline in the use of family/whānau<sup>18</sup> for childcare from 65% in 2006 to 56% in 2009. The greatest usage was made of education and care centres, although all service types were used.

Parents commonly used more than one ECE service for their childcare arrangements but multiple use of ECE while parents worked or studied decreased between 2006 and 2009 from 63% to 51%.

Average hours of ECE use while parents were working or studying were higher in 2009 than 2006 for parents from every service type.

In 2009, there was a slight reduction in the percentage of parents stating that lack of a suitable ECE arrangement was the only or an important reason for parents not looking for a job, turning down a job or leaving a job.

In what ways has participation in ECE supported parents' ability to engage in work and training?

Participation in ECE offered greater support for parents to engage in work and training in 2009 compared with 2006. The main shifts were away from non-ECE arrangements, where parents use these in combination with ECE to use of ECE alone, a reduction in use of more than one ECE service and an increase in the hours of ECE used as arrangements to support engagement in study and work. These changes are likely to better support children and families by limiting the need for children to make transitions from one service to another and for parents to juggle complex arrangements for their child. ECE services have become somewhat more responsive to the hours parents need for work and training. According to managers, changes to service operation were largely made possible by the funding improvements, which opened up possibilities for change, and by service leadership and their willingness to consult with their community about operation hours.

How effectively has participation in ECE supported parents' ability to engage in work and training?

The high percentage of parents using ECE while they engage in work and training indicates participation in ECE is supporting work and training. Longer hours of ECE usage to support work and study, and reductions in use of multiple arrangements and reliance on family and friends suggest ECE is playing a stronger role in 2009 than in 2006.

Barriers experienced by parents of cost, hours available and choice of service type were less of a hindrance for parents who wanted to work and study in 2009 compared with 2006. The funding initiatives, particularly *20 hours ECE*, have reduced the cost of services for parents, made services much more affordable, and helped services become more financially sustainable. These have also indirectly supported parents' ability to work and study. The hours available and

<sup>17</sup> Combining use of all ECE service types.

<sup>18</sup> Combining use of 'partner', 'member of whānau', 'friend/neighbour'.

choice of service type seem also to have become more closely aligned to parental employment and study needs in 2009. Changes in operation were made more possible by the increased government funding.

However, as in 2006, there continues to be a need for more flexibility in the opening hours of ECE services. Currently, there are still many parents who are mixing and matching ECE and care arrangements and combining ECE services or ECE services and family and/or friends in order to go to work. Parents working and in training or studying continue to manage both the expected disruption of sick children but also the fact that ECE services close during the school holidays and at times the usual caregiver is unavailable. In terms of location, parents were generally enrolling their child either close to home to facilitate ease of 'pick-up' by friends and family or close to work so they have ready access to their child if needed.

Lack of a suitable ECE arrangement continues to be a barrier, preventing some parents looking for work or taking part in study, although one which is lessening over time. Lack of spare places in existing ECE services was more of a barrier to making suitable ECE and care arrangements for parents wanting to work or study in 2009 compared to parents in 2006.

One of the strategies to increase participation outlined in *Pathways to the Future: Ngā Huarahi Arātāki* is to provide ECE services that are responsive to the needs of children, parents, families and whānau. While this is happening to a greater extent than in 2006, a challenge remains of how to design ECE service provision so that it offers flexibility to support the needs of families in paid employment, study and training and provides high quality ECE for children. Another challenge is to plan sufficient provision so that families are able to access the kind of service they would like when they wish to. Labour market policies, including conditions of work and paid parental leave that enable working families to reconcile work and family responsibilities, are also relevant.



## 7. Conclusion

The results of this evaluation, undertaken during the course of the strategic plan, offer very positive findings. They suggest that the strategic plan initiatives have contributed to a considerable extent to the plan's goals of improving quality, increasing participation, and supporting collaborative relationships.

### Improving quality

Positive gains were found on four intermediate outcomes that had been the target for the early strategic plan initiatives in the stage 1 evaluation in 2006:

- Quality teaching and learning practices
- *Te Whāriki* effectively implemented
- Collaborative relationships between ECE and families and whānau
- More registered teachers in ECE.

Gains continued to be made on these outcomes in 2009. Impressive findings were the large positive shifts over the evaluation years in quality teaching and learning practices and teachers' understanding of *Te Whāriki* associated with a high and continuing take-up and usage of *Kei Tua o te Pae. Assessment for Learning: Early childhood exemplars*, the newer usage of self-review guidelines *Ngā Arohaehae whai hua. Self review guidelines for early childhood education*, Centre of Innovation publications and workshops, and the employment of higher levels of qualified teachers. These have been MOE strategic plan initiatives. Teachers say that these have made a difference to teaching practice. They have welcomed the initiatives and are keen to have more. They appreciate the exemplars and workshops that have come from practising teachers working in collaboration with researchers. Parents' survey responses in 2009 indicate that parents are more involved in teaching and learning processes than they were in 2006 and 2004.

Taken together, these findings suggest that MOE strategic plan initiatives are contributing to a curriculum that is 'permeable', open to contribution from all comers (Carr et al., 2001, p. 31) and that enables teachers to work with families' funds of knowledge (Gonzalez et al., 2005). Teachers' understanding of sociocultural theory of learning has been enhanced.

These teaching and learning practices can enable greater consistency between settings of home and ECE service, so that the understanding and actions in both settings are reinforced and built on. The Family and Community principle of *Te Whāriki* acknowledges that:

*“Children’s learning and development are fostered if the well-being of their family and community is supported; if their family, culture, knowledge and community are respected; and if there is strong connection and consistency among all aspects of the child’s world.”* (Ministry of Education, 1996b, p.42)

This was a prime rationale for the strategic plan goal to promote collaborative relationships, in particular to provide support for ECE services to involve parents and whānau in teaching, learning and assessment.

The EPPE study found that involvement in learning activities at home is closely associated with cognitive achievement in the early years. Teachers in effective settings regularly shared child-related information with parents and involved them in decision-making about the child's learning programme. They communicated regularly with parents about the

children's progress (Siraj-Blatchford et al., 2003). These communications had steadily improved in the services in our evaluation and were occurring to a much greater extent in 2009 than 2004. The improvements were attributable to teachers'/educators' use of MOE publications and take-up of MOE-funded professional development.

The EPPE research found that the shared knowledge from these communications benefits children's learning outcomes, because understanding children's interests, experiences and knowledge is a starting point for interactions that engage and extend children's thinking and learning.

*“The more knowledge the adult has of the child the better matched their support and the more effective the subsequent learning.”* (Siraj-Blatchford et al., 2003, p.145)

We found that the 'very good' quality teacher-led services all had 100% registered teachers at the time the observations of quality were made. This was true in every evaluation year.

ECE-qualified teachers are a feature of structural quality that is linked in research evidence with better child outcomes, particularly with children's reading and language progress in the first two years of schooling. This was demonstrated in the EPPE study where the higher the percentage of time qualified staff spent interacting with children, the better was children's pre-reading progress and social development at school entry (Sammons, 2010, p.103). Across 10 countries, a 2006 International Association for the Evaluation of Educational Achievement study of nearly 2,000 children found that as levels of teacher education increased, children's age-seven language performance improved (Montie, Xiang, & Schweinhart, 2006). The study found that teachers with more education use more words and more complex language in communicating with children. Another US study of 800 four-year-olds, using data from the National Center for Early Development and Learning, linked higher levels of teachers' education to gains on standardised measures of mathematics skills across the pre-K year (Early et al., 2006). Pre-K is the first year of school. The National Institute of Child Health and Human Development Early Child Care Research Network (NICHD ECCRN) offers an explanation for this effect.

*“Qualified teachers are likely to draw on their knowledge and experience of children and pedagogy to offer the kinds of cognitively challenging adult–child interactions that are linked with gains for children. The NICHD ECCRN study (2002) using structural equation modelling, found a mediated path from structural indicators of quality (teacher qualifications and staff:child ratios) through process quality to cognitive competence and caregiver ratings of social competence. These authors suggest that ‘more caregiver training may lead to better interactions between children and adults, while lower ratios may lead to more interactions’.”* (NICHD ECCRN, 2002, p. 206). (Mitchell et al., 2008, p. xv)

Our findings show that the three teacher-led services that were rated as having 'very good' quality in each evaluation year had 100% registered teachers. The three rated 'fair' or 'poor' quality had 36% to 56% registered teachers. However, having registered teachers seems not to be sufficient on its own to ensure quality.

The pattern in relation to qualifications was somewhat different in playcentres. Here a linkage between overall quality and playcentre course levels was still found. The one (and in one year, two) 'very good' quality playcentres tended to have one or more adults holding Playcentre Course 4 qualification (the highest course level) and other adults holding a good range of other course qualifications. A key difference between parent/whānau-led services and teacher-led services is that parents who have undertaken playcentre training are working together with their own children. They bring their knowledge of their own child from the home environment.

The evaluation found that higher levels on all the intermediate quality outcomes (apart from staff:child ratios, which were not a focus for strategic plan initiatives), were linked to higher levels of observed quality ECE in services and lower levels to lower quality ECE. The connections between the intermediate outcomes that are outlined in the logic

model appear therefore to be valid descriptors of consequential relationships and to contribute to good quality outcomes for children and parents.

Opportunities under the strategic plan were not being taken up by all ECE services. The logic model identified a risk of increased participation in poor quality ECE services to enable parents to engage in education, training and study. This emerged as a concern in this study where three of the full-day education and care centres were rated as low overall quality and performed poorly on most intermediate outcomes in each of the evaluation years.

## **Facilitating the formation of collaborative relationships**

The strategic plan initiatives have contributed to stronger relationships with parents to support pedagogical aims. Professional relationships with schools and other ECE services have improved and were more pedagogically focused in 2009. Teachers/educators seem to have more awareness in 2009 of the value of such relationships in terms of children's transitions. Relationships with health services improved and relationships with welfare services improved in communities where partnerships existed among community, government agencies and local government.

There were two major challenges for services within the collaborative relationships goal of the strategic plan. These were also found to be challenges in the 2006 evaluation

- forming strong connections about children and their learning and development with all families, given our understanding of the importance of these relationships, particularly with children
- having coordinated structures at local levels to enable better networking to occur.

## **Increasing participation**

In 2006, small changes only had emerged from participation initiatives, which were then in their early days. This was largely owing to the fact MOE participation initiatives had been largely targeted and had not touched many of the services in the study. In 2009, a universal MOE initiative, *20 hours ECE*, had been in place for two years and was having a substantive impact on participation indicators. Its greatest impact was on increasing the number of children attending and their hours of participation and influencing parental decisions to participate in ECE. Parents from every income group reported deciding to participate in ECE because of the *20 hours ECE* policy. The 2009 average hours of ECE participation are within the range of 15–20 hours for children over two suggested by Loeb, Bridges, Bassok, Fuller, and Rumberger (2005) as affording good opportunity for cognitive gain. In 2009, fewer children were attending ECE for a few hours per week than in 2006 and 2004.

Improvements in the levels of funding through the funding policies were associated with services having greater financial sustainability and costs being much more affordable for families in 2009.

The main need emerging from the analysis was for places to be available in appropriate services where and when they were needed. The new “intensive community participation projects, improving the supply of responsive high quality ECE [and] redesigning existing initiatives” (Ministry of Education, 2010) may help to address this need, as well as meet the aspirations and needs of families who are not currently participating in ECE.

The Organisation for Economic Co-operation and Development (OECD) recommends that spending on ECE should be no less than one percent of Gross Domestic Product (GDP). It states that

*“The overwhelming evidence from the reviews of twenty countries suggests that without substantive public investment in policy, services and management, both affordability to parents and the quality of services are likely to be undermined.” (OECD, 2006, p. 118)*

Government expenditure on ECE rose during the implementation of the strategic plan from \$439,187,000 in 2003/03 to \$1,186,746,000 in 2008/9. These levels of funding have contributed to gains for the services and families accessing them.

### **Supporting parents' ability to engage in paid work and training**

ECE is supporting parents' ability to engage in paid work and training, more so in 2009 than 2006. In 2009, ECE services are slightly more flexible and responsive to support these needs but many parents would like them to be more flexible. Another challenge is to plan sufficient provision so that families are able to access the kind of service they would like when they wish to. Labour market policies, including conditions of work and paid parental leave that enable working families to reconcile work and family responsibilities, are also relevant.

### **Conclusion**

A clear message from this evaluation is that the Ministry of Education's sustained focus on strategic plan policy initiatives and ECE service uptake of opportunities afforded by these initiatives contributed to increased participation, improved quality, and enhanced collaborative relationships. The greatest gains have come from initiatives that are universally available and that interconnect and support each other. The evaluation provides substantial support for continuing to give good quality ECE priority in New Zealand's policy efforts to improve outcomes for children and support families.



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## 9. Appendices

### Appendix A: Strategic plan actions

The main strategic plan actions at August 2009 (when Stage 2 data were collected) were as follows:

#### Enhancing teaching and learning

- Increasing the number of registered teachers in teacher-led services by setting targets<sup>19</sup> and providing incentives.<sup>20</sup>
- Publishing MOE professional resources and funding professional development.
  - The professional assessment resources were *Kei Tua o te Pae. Assessment for Learning: Early childhood exemplars* (Ministry of Education, 2005b, 2007, 2009). The 2005 (Books 1-9) and 2007 (Books 10-15) exemplars were sent to every licensed ECE service. The 2009 (Books 16-20) had to be purchased.
  - Draft self-review guidelines were sent to some services in late 2005 for consultation, and the final guidelines published in 2006 (Ministry of Education, 2006).
  - Many publications have emerged from individual COIs and final reports have been published on the MOE website.
  - An ICT framework and video (Ministry of Education, 2005a) was published in 2005, and a pilot programme to explore the benefits of ICT was started in 2006.
  - MOE-funded professional development included ‘Inspiration Days’ to help people understand and use exemplars and professional development contracts on implementation of the exemplars.
- Establishing and supporting COIs to build the use of innovative approaches that improved early childhood education teaching and learning based on *Te Whāriki*, and share the models of practice with others in the ECE sector. Twenty COIs had been funded by 2009. Most had completed their research but three of these were part way through.
- Research to investigate quality in parent/whānau-led services had been undertaken and was published later in 2006 (Mitchell, Royal Tangaere et al., 2006a, 2006b; Mitchell, Royal Tangaere, & Whitford, 2006).

<sup>19</sup> Targets: 2005 all persons responsible are required to be registered teachers; 2007—50% of regulated staffing to be registered teachers; 2010—80% of regulated staffing to be registered teachers or services can count teachers studying for an NZTC-approved qualification as up to 10% of the 80% requirement; 2012—all regulated staff to be registered teachers or at least 70% of regulated staff to be registered teachers and the remainder to be studying for an NZTC-approved qualification. The May 2010 Government Budget amended the timeframe for the 80% registered teacher to 2012 and withdrew the 100% requirement but this was outside the timeframe for this evaluation.

<sup>20</sup> Range of initiatives: TeachNZ Scholarships; higher funding rates for services with more registered teachers; Loan Support; National and International Relocation Grants; Returning to Teaching allowances; Relief Teacher Pool; Ministry of Education & New Zealand Teachers Council (2007). *Towards Full Registration: A support kit*. Ibid: Wellington.; Recruitment Brokers; Incentive Grants; and Primary Study Grants.

## Promoting participation

- Network analysis and development. Across the country MOE was undertaking analysis of the current state of the network of ECE services. This analysis was to assist in identifying where investment may be needed in new services and where the existing network was sufficient to meet community needs. MOE facilitators were working with communities in areas of low participation to find solutions for access to quality and sustainable ECE. The Discretionary Grants Scheme had been expanded to increase funding for new ECE services in areas of low participation or high population growth.
- The Promoting Participation Project was working through contracted community organisations in areas of low ECE participation identifying families who did not participate and providing options for them to begin participating in ECE. Two of the localities in this evaluation had a Promoting Participation Project.
- Land was being set aside for an ECE service on all new school sites.
- Advice and support for new services. MOE coordinators continued to be available to support community services to become licensed. The Design and Build scheme (on the MOE website) was offered as a resource to support services to select a good quality early childhood building design.
- Advice and support for services to meet community need. Ministry facilitators were working with services in areas of low participation that needed support to meet the needs of their communities. This work included support for governance, management, and administration practices.

## Funding

- Equity Funding was offered from March 2002 for community-based licensed services in low- income communities, isolated services, and services offering the programme in a language other than English. It is intended to reduce educational disparities between different groups, reduce barriers to participation for groups under-represented in ECE, and support ECE services to raise their levels of educational achievement.
- New funding system and funding rates. ECE funding increased significantly from 1 April 2005, as a result of the Government's decision to fund the main costs of the strategic plan. More funding rates enabled funding to be targeted to service types that face additional costs as a result of the plan. The Government intended that improved quality would not be more costly for parents, so participation would not decrease as quality improved.
- The Childcare Subsidy rate was increased and income eligibility threshold expanded over time from 2004.
- Free ECE was implemented in July 2007 for three- and four-year-olds for up to 20 hours per week in teacher-led services. It was renamed *20 hours ECE* in 2008.

## Collaborative relationships

Integrated services for children, families and whānau.

- MSD work on early intervention included a focus on parenting in early years.
- Interagency work between MOE, Health and MSD to improve links in early years' services.



- From 2006, MSD provided three year funding for 10 pilot projects for ECE services offering parent support and development from their service. These were extended to 16 in 2007. The May 2009 Government Budget announced the end to funding for these projects.
- Assessment exemplars included how assessments include and construct a learning community.

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## Appendix B: ECE quality rating scale items

### **A Adults are responsive and guide children**

1. Adults are responsive to children
2. Adults model—and encourage children to use—positive reinforcement, explanation, and encouragement as guidance/discipline techniques
3. Adults model/guide children within the context of centre activities
4. Adults participate with children in activities and play

### **B Adults extend children's learning**

5. Adults ask open-ended questions that encourage children to choose their own answers
6. Adults encourage/foster children's language development
7. Adults add complexity and challenges for children

### **C Children complete work and concentrate**

8. Children display purposeful involvement in learning episodes
9. Children are allowed to complete activities
10. Children can select their own activities from a variety of learning areas

### **D Children cooperate and co-construct learning**

11. Children support and cooperate with one another in language and actions
12. Children co-construct learning with other children
13. Children display emergent leadership/leadership skills

### **E Inclusion**

14. Tikanga Māori (culture) and te reo Māori (language) is evident
15. Non sex-stereotyped play among children is observed
16. There is evidence of recognition/acceptance of the cultures of children at the early childhood education service. The ethnicity of the children at the early childhood education service is taken into account and their cultures are represented
17. There is evidence that the setting is inclusive of all children

## **F Education programme content**

18. Tikanga Māori (culture) and te reo Māori (language) is evident
19. Children work on problems and experiment with solutions
20. Children are encouraged to explore mathematical ideas and symbols
21. Children engage in child-initiated creative play (eg, storytelling, singing, pretend play, drama, making music)
22. Stories are read/told/shared
23. There is evidence of children's creativity and artwork
24. The centre is a 'print-saturated' environment
25. There is evidence of opportunities for children to write

## **G Resources**

26. There are enough age-appropriate toys/books/equipment (resources) to avoid problems of waiting, competing, and fighting for scarce resources
27. Equipment and activities encourage fine motor skills development
28. Equipment and activities encourage gross motor skills development
29. Provision of space for children to explore the physical world
30. A balance of safety and freedom is achieved to ensure access to equipment, materials, and learning episodes

## Appendix C: Indicators and rubrics developed to measure strategic plan outcomes and intermediate outcomes

Chapter 2 discusses the analytic framework used to analyse change on outcomes and intermediate outcomes between 2004, 2006 and 2009. In this Appendix, we describe the rubrics developed for the quality and collaborative relationships outcomes.

### Quality outcomes

Levels of quality: process quality

In 2004 and 2006, we used a rubric to determine the overall process quality in which we weighted the dimension ‘resources’ as moderately important and other items as ‘very important’. These rubrics are reported in the Stage 1 report (Mitchell & Hodgen, 2008). In 2009, we removed the weightings on the grounds that interactions, resources and the environment in combination contribute to effective teaching and learning. It was artificial to weight one more highly than the other. This usage is consistent with the use made of the ECERS-R and ECERS-E, similar rating scales that were used in the EPPE project to rate the quality of preschools in the UK and Northern Ireland (Sylva, Melhuish, Sammons, Siraj-Blatchford, & Taggart, 2010; Sylva, Siraj-Blatchford, & Taggart, 2003).

### The quality dimensions

We categorised all the dimensions as very important:

- *Adults responsive and Adults extend children.* Evidence from the Competent Children, Competent Learners study found items in this cluster showed positive associations with children’s competencies over five years later at ages 10, 12, and 14 years. These were: Adults are responsive to children; Adults guide children within the context of centre activities; Adults ask open-ended questions; and Adults participate with children in activities and play. The interactions and relationships that occur in an early childhood education setting and shape children’s learning opportunities and experiences are key to quality. In their longitudinal EPPE study of more than 3,000 children in England Siraj-Blatchford, Sylva, Taggart, Sammons Melhuish, and Elliot, (2003) also found that good outcomes for children were linked with adult:child interactions that involved ‘sustained shared thinking’ and open-ended questioning to extend children’s thinking. Items in this cluster include those used in the Competent Children, Competent Learners study and items new to this evaluation<sup>21</sup> that were based on evidence of adults scaffolding learning. Behaviour policies in which staff support children in rationalising and talking through conflict was linked to good outcomes for children in the EPPE study and was also an item in this cluster. This requires a more problem-solving approach.
- *Children complete work and concentrate.* Items in this cluster are: Children display purposeful involvement in learning episodes; Children are allowed to complete their work; and Children can select activities from a variety of learning areas. These are associated in research evidence with children being involved, developing perseverance and learning dispositions, and thinking for themselves. In the Competent Children, Competent Learners study, the item ‘Children can select their own activities from a variety of settings’ had associations with some competencies at age 8 and 10, but not at age 12, and indicative associations at age 14.

<sup>21</sup> New items are ‘Adults encourage/foster children’s language development’ and ‘Adults add complexity and challenge for children’.

- *Children support, cooperate, and co-construct learning.* Providing learning experiences where children are encouraged to learn with and alongside others and where each child's contribution is valued as important. The exemplar project provides examples of how friendships and social interactions can provide entry to more complex learning, such as communicating, joining in group discussions, and participating in collaborative projects. These items are related to the concept of 'whānaungatanga', which is of key importance to kōhanga reo. 'Whānaungatanga' draws on the importance of whakapapa or genealogical ties and the collective responsibility that this cultural pedagogy expects. All children are seen as important members of the whānau and able to contribute. The EPPE project found that in the most effective settings, neither adult-initiated activities, nor child-initiated activities dominated. The EPPE authors argued that adults therefore need "to create opportunities to extend child-initiated play as well as teacher-initiated group work, as both have been found to be important vehicles for promoting learning" (Sylva, Melhuish, Sammons, Siraj-Blatchford, & Taggart, 2004, p. vi).
- *Inclusion items are:* Tikanga Māori (culture) and te reo Māori (language) are evident; Non sex-stereotyped play among children is observed; There is evidence of recognition/acceptance of the cultures of children at the early childhood education service; The ethnicity of the children at the early childhood education service is taken into account and their cultures are represented; There is evidence that the setting is inclusive of all children. This dimension also forms part of the intermediate outcome 'ECE services meet language and cultural aspirations'. The ECERS-R scale, which included a subscale "Responsiveness to diversity", linked to social-emotional outcomes in the EPPE study (Sylva et al., 2010).
- *Education programme content items are:* The centre is a print-saturated environment; Te reo and tikanga Māori are evident; Stories are read, told, and shared; There is evidence of opportunities for children to write; Children are encouraged to explore mathematical ideas and symbols; Children work on problems and experiment with solutions; Children engage in child-initiated creative play; and There is evidence of children's creativity and artwork. Exposure to the written word (the item 'The centre is a print-saturated environment'), where print is seen as meaningful and enjoyable, made a continuing contribution to children's competencies at ages 10, 12, and 14 in the Competent Children, Competent Learners study. The EPPE project found that practitioners' understanding of the curriculum area being addressed is vital.
- *Resources and environment.* These provide tools and space for children to learn. Items are: There are enough age-appropriate books/toys/equipment; Equipment and activities encourage fine motor skills development; Equipment and activities encourage gross motor development; Space is provided for children to explore the physical world; and A balance of safety and freedom is achieved to ensure access to equipment, materials, and learning episodes.

To get a score for the dimensions, the mean of the ratings for the items in each dimension was calculated: 'very good': 4+; 'good': 3-3.9; 'fair': 2-2.9; 'poor': 1-1.9.

### **Overall quality rating (service level)**

To get a score for *Overall quality*, the dimension scores were combined and the means calculated, as above.

## Intermediate outcomes

### More qualified teachers in ECE

**Table 1: Rubric for determining value of more registered teachers in ECE (service level)**

Rating	Description	Numerical rating	Weighting
Good	Qualifications		
	70% or more of teacher/educators have a Diploma of Teaching (ECE) or higher and the rest are in training for this (teacher-led services)	3	3
	One or more kaiako have Whakapakari (kōhanga reo)	3	3
	One or more playcentre educators have Course 4 or higher (playcentre)		
Adequate	Qualifications		
	50% to 69% of teacher/educators hold a Diploma of Teaching (ECE) or higher (teacher-led services)	2	3
	One or more kaiako are studying for Whakapakari (kōhanga reo)	2	3
	No playcentre educators have Course 4 or higher but the number holding Course 3 is more than sufficient to meet requirements (playcentre)	2	3
Poor	Qualifications		
	The percentage of teacher/educators holding a Diploma of Teaching (ECE) or higher meets regulatory standards but is not better (teacher-led services)	1	3
	No kaiako hold or are studying for Whakapakari (kōhanga reo)	1	3
	No playcentre educators have Course 4 or higher and the number holding Course 3 is just sufficient to meet requirements (playcentre)	1	3

There is only a single description for each dimension (differentiated by service type) so these did not have to be combined.

### Quality in parent/whānau-led services

Some factors contributing to quality in these services are common to all services, ie, good quality resources, adult qualifications, participation in professional development/wānanga, access to a wide range of professional advice and support (including for special education needs) and mutually beneficial relationships with other ECE services. In our study investigating quality in these services (Mitchell, Royal Tangaere, Mara, & Wylie, 2006), we found experience to be an additional factor and suggested this was because experienced parents who also had qualifications/skills could play a mentoring role and work alongside others. Levels of language fluency and cultural expertise are aspects of quality in kōhanga reo and Pasifika services.

### Reduced ratios and centre size

In this rubric we have kept the current bands (under two and over two) for ratios to provide comparison with regulated requirements. This is not meant to suggest that these bands are preferred. We used the average of field researcher counts of total number of teachers/educators divided by total number of children as a measure of ratios.

ECE centres are generally not organised into smaller groups of children, although groups tend to form and change informally through children following their interests. The MOE has put off considering group size and use of space until 2009. We used the average of field researcher counts of total number of children as a measure of centre size.

In interpreting results, we were informed by the NICHD Early Child Care Research Network (2002), which has used group size American standards developed by the American Public Health Association and American Academy of Pediatrics.

Ratios: 1:3 at 6 and 15 months; 1:4 at 24 months; 1:7 at 36 months.

Group size: 6 at 6 and 15 months; 8 at 24 months; 14 at 36 months.

However, these are hard to interpret for a New Zealand setting where individual teachers do not work with a class of children, but work cooperatively with larger groups.

### Teaching and learning practices

Here we describe ratings made about assessment for learning, planning, evaluation, and self-review. The ratings are 1 'poor', 2 'fair', 3 'reasonable', 4 'very good'. Services were placed in the category that **on the whole** best described their practices.

### Assessment for learning

The indicator ratings are intended to gauge key principles about assessment from *Kei Tua o te Pae. Assessment for Learning: Early childhood exemplars* (Ministry of Education, 2005b). The emphasis is on assessment for learning, ie, formative assessment.

*Kei Tua o te Pae. Assessment for Learning: Early childhood exemplars* (Ministry of Education, 2005b) definition: Assessment for learning is described as “noticing, recognising and responding .... These three practices 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 notice” (Book 1, p.6).

Mary Jane Drummond’s (1993) definition (cited in Book 1, p.6): Assessment for learning can be further described as “[the] ways in which, in our everyday practice we [children, families, teachers and others] observe children’s learning [notice], strive to understand it [recognise], and then put understanding to good use [respond].”

### Indicator ratings

1. **Very good:** Assessments are made on every child (as individuals and members of a group) and over time. There is evidence that assessments illustrate learning that is multidimensional (eg, linked to a range of *Te Whāriki* principles and strands and including the concept of learning dispositions). Assessments include the context: how the learning has occurred across people, places and things. Teacher/educators analyse assessments to understand diverse learning, eg, analyse learning progression and interactions and environment contributing to learning. They use their analysis to decide on next steps to enrich learning that is valued. Documented assessments are accessible to children and whānau in style (eg, through use of narrative styles and photographs that can be ‘read’ by a range of audiences) and through their location (eg, on a shelf where children can access them). There is evidence that children, parents, and whānau contribute to and use assessment, eg, through inclusion of parent and child contributions, through children revisiting their own/group portfolios, children deciding what should be included in portfolios, through parents taking documented assessments home to share with whānau and add to.
2. **Good:** Assessments are made on every child, although this may be infrequent, eg, soon after starting and once a year. Assessments are generally linked to *Te Whāriki* and include learning dispositions. Assessments include the context, but this may be limited, eg, include child’s exploration of their environment but less about interactions with people. Teacher/educators analyse assessments to decide on next steps to enrich learning but evidence of understanding of how and why learning is occurring may be limited. Children and whānau have access to portfolios but may have to ask for these. Parents and children sometimes contribute to assessment but this is not a common practice.

3. **Fair:** Assessments indicate some recognition of learning that is occurring, but this is limited to a narrow range of learning areas and the focus is predominantly on knowledge and skills, not learning dispositions. The context of learning is seldom or never included. There is limited understanding of how learning has occurred or of progression over time. Teacher/educators show some awareness of the need to recognise and support learning but there is no evidence that assessments are analysed to decide on how this might happen. Assessments are made by teacher/educators without input from children, family, and whānau. Teacher/educators may ‘tell’ parents and whānau about their child but do not invite contribution.
4. **Poor:** Teacher/educators are unable to describe how they make either documented or informal assessments and cannot show examples of these. Alternatively, if assessments are made, the assessments describe activities, eg, sample of child’s work or a checklist of what a child can do but do not indicate recognition of learning progression or of factors to be taken into account for an individual child. The focus is on the activity. There is no evidence of recognition of how any learning has occurred or recognition of progression in learning over time. There is no evidence that assessments are put to good use in planning for/responding to the child/children.

### Planning

Lawrence (2004) has described shifts in 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) for planning to be child initiated and that planning is “reflectively responding to children’s thinking”. Then the teacher can plan how to support and resource learning.

Hatherly (2004, 2006) considered that a planning framework founded on *Te Whāriki* would provide for children and whānau to be involved in the planning process and would be viewed as continual (responsive) rather than expectations set out in advance. She noted that:

*“Traditional planning frameworks have been strong on deciding and documenting intention but weak on recording the evidence of what actually happened or changed as a result.”* (Hatherly, 2004, p.10)

She suggested that ‘planning stories’ could be recorded over time. These would document how thinking, knowledge and participation (of children, parents/whānau, and teachers) have changed as a result of planning. In this way, evaluation sits within planning and is documented as such.

Principles for planning in developing these indicators are: planning sits within framework of principles of *Te Whāriki*; involves communication and collaboration with children and whānau; occurs over time; is based on assessment for learning and includes evaluation elements; includes teachers’ ideas on resources, possible directions, interactions to extend learning/challenge thinking, and children’s and parent/whānau contributions, eg, what children want to know, how to find out. Planning is for learning goals rather than activities and is not predetermined for all children.

### Indicator ratings for planning

1. **Very good:** Planning sits within the framework of *Te Whāriki* and is integrated with the practices of assessment, evaluation, and self-review. It focuses on enhancing dispositional learning, as well as skills and knowledge. Planning is driven by evidence-based formative assessment, for individual and groups of children, and programme evaluation. Teachers ask critical questions and critique their work during planning practices. Planning includes teacher/educators’ ideas on resources, interactions and/or experiences and possible directions. Parents’ and children’s contributions are included.



2. **Good:** Planning is related to *Te Whāriki* principles, strands and goals but the selection of strands or goals seems to be somewhat arbitrary or simply a reference point. Assessment and programme evaluation are discussed as a basis for planning but there is little or no critique of the teacher's role. The focus for planning varies, from activities, issues of concern, interactions, and experiences. Parents and children sometimes contribute to planning but this is not a common practice.
3. **Fair:** Plans are rarely connected to assessments and evaluations and are usually driven by issues. The plans sometimes use the language of *Te Whāriki* principles, strands and goals but linkages with these are made after the plans are decided, as a justification. The planning focus is on activities, resources or issues of concern, eg, children not settling well. Plans are formulated by teachers or team leaders (in playcentre) with little or no input from children, parents, and whānau.
4. **Poor:** Teacher/educators are unable to describe how they plan and cannot show examples of this. Alternatively, if plans are made, these describe activities/themes to be followed, eg, writing activities such as tracing letters on a letter board, seasons. The focus is on the activity or theme. Plans do not emerge from assessment or evaluation. Plans tend to be uniform for all children or all children of a certain age group. Plans are formulated by teachers alone. Plans may be made for a whole term in advance.

### Programme evaluation

The indicator ratings are intended to gauge key principles about evaluation, drawing especially on Carr, May, Podmore, Cubey, Hatherly, and Macartney (2000). *Learning and Teaching Stories: Action research on evaluation in early childhood education*. This portrays evaluation as formative, with assessment being part of evaluation and both part of curriculum implementation. Practices of effective evaluation include use of tools linked to children's learning dispositions, eg, the child's questions from learning and teaching stories (Carr et al., 2000, p.9). The process of evaluation includes reflective discussion about data that often challenges teachers' assumptions. Action research may be an effective process of evaluation. Evaluation includes consideration of the role of teachers in the programme as well as children's learning dispositions. In a cycle of evaluation, practitioners put in place "structures, systems, and processes as appropriate to improve the implementation of *Te Whāriki*, and consequently enhance the experiences of children" (Podmore, May, & Carr, 2001, p.8).

### Indicator ratings for programme evaluation

1. **Very good:** Teacher/educators make evaluations linked to *Te Whāriki* principles, strands and goals. Evaluations are made on the basis of data generated through assessments for children's learning and make use of tools that enable investigation, eg, action research tools that encourage teacher/educators to collect data and reflect on their programme. Use of these tools creates challenge, eg, observations of the programme by a 'critical friend', a parent survey. Viewpoints of parents/whānau and children are sought and responded to. Teacher/educators may construct tools themselves to suit their ECE community. Evaluations highlight teachers' interactions and/or thinking that could be enhanced. Evaluation is followed through into planning and implementing structures, systems, and processes to improve the implementation of *Te Whāriki* and enhance children's experiences. There is evidence of teacher/educators' critical reflection during the process of evaluating.
2. **Good:** Teacher/educators make evaluations linked to *Te Whāriki* principles, strands and goals. They make use of data generated from assessments for learning but seem to lack a critical edge. The focus is on children's learning and there is only sometimes an emphasis on teacher/educators' role. Evaluations are used in planning and followed through in the programme where appropriate.

3. **Fair:** Evaluations generally involve teacher/educators discussing how the programme went. Assessments are not considered within the evaluation and there is no analysis of the teachers' roles. The focus is on evaluating how activities went and resources. Plans are made for a subsequent session/s—these are about activities.
4. **Poor:** Teacher/educators do not undertake programme evaluation. Alternatively, if any evaluations are made these are largely informal ('on the wing') and not linked to assessments. Where evaluations are written, these tend to be filed away and have no connection to assessment or programme planning. Evaluation may not involve all the teacher/educators.

### Self-review

The MOE self-review guidelines (Ministry of Education, 2006) describe principles and practices for self-review in ECE services. We drew from the draft guidelines in 2005 (Ministry of Education, 2005a) (since the final guidelines were not published at the time the rubrics were developed) to develop indicator ratings, as well as *The Quality Journey* (Ministry of Education, 1999) *Quality in Action* (Ministry of Education, 1998), and discussions with MOE staff.

Self-review is described as “a process of finding out how well we are achieving our shared vision for our tamariki” (Ministry of Education, 2005a, p.9) and as improving practices to achieving positive learning outcomes for children and checking whether obligations set in regulations and legislation are met. Both the process of self-review and the outcomes are important. Self-review is evaluative. It should include an identified goal, generation of evidence, analysis, and synthesis to enable understanding of how well the service is doing in respect to the goal and how this is known. Self-review may make use of indicators, eg, Teaching, Learning and Development indicators in *The Quality Journey*, evaluation indicators for education reviews (Education Review Office, 2004) that enable the review to be focused. All members of the ECE service need to have opportunity to participate. The purpose is to improve practice, not just to be accountable. The key practices for self-review identified by MOE (Ministry of Education, 2005a) are:

- Learning and teaching
- Collaborative practice
- Professional practice
- Governance and management.

### Indicator ratings for self-review

1. **Very good:** Self-review is viewed positively as of real value to enhancing teaching and learning. The focus is clearly specified and evaluative tools are used to collect evidence about the focus. ECE participants critically examine data and decide on action, keeping open to a range of options. Self-review may be led by different groups within the service depending on the focus and deliberate consideration is given to who should be involved in each and why. The outcome of self-review is action to improve practice. Self-review occurs across a range of practices.
2. **Good:** Self-review is undertaken, although this is mainly done for accountability reasons and is regarded as of limited benefit to teaching and learning. The focus is stated, evidence collected about the focus and decisions made from discussion of evidence. The process, however, seems to lack critical edge. Self-review involves management, parents, and whānau and teacher/educators but the group of parents/whānau who participate tend to be committee members or often the same small group.
3. **Fair:** A focus is set for self-review and evidence about the focus is generated. Self-review tends to be across a narrow range of practices. Results of the review are filed, used to justify current practices or take a course of action that has already been decided. Self-review may involve management and teacher/educators but rarely includes parents and whānau.

4. **Poor:** Self-review is either not undertaken in this ECE service or is carried out routinely on one or two limited aspects of practice, eg, staff appraisal. It involves a top-down process and is carried out by one group within the service, eg, management, without consultation.

### Te Whāriki effectively implemented

#### Understanding and use of *Te Whāriki*

This indicator examines the level of understanding of the principles of *Te Whāriki* and how these link into assessment, planning, and evaluation practices. The principles of *Te Whāriki* reflect a sociocultural approach to learning, informed by Bronfenbrenner's ecological model of human development (Bronfenbrenner, 1979).

Sociocultural approaches to curriculum practices should enhance children's sense of themselves as capable and competent learners. Practices and policies for inclusion and empowerment will be in place. The curriculum is provided in a context of meaningful activities and relationships and treats learning as holistic, not foregrounding individual skills to be learnt. Curriculum practices should construct 'communities of learners', eg, Rogoff, Turkanis, and Barlett (2001)—children, families, whānau, and community will be included and engaged in authentic ways. There will be connections and relationships between early childhood education settings, home and other contexts involving the child (Bronfenbrenner, 1979, p.847). Relationships with children and among adults will be reciprocal.

Principles of *Te Whāriki* underpin assessment, planning and evaluation practices (Ministry of Education, 1996b, p.30).

#### Indicator ratings for understanding and use of *Te Whāriki*

1. **Very good:** All teacher/educators are highly knowledgeable about *Te Whāriki*. They confidently describe the principles and theoretical base of *Te Whāriki*. The principles are described as the basis for the curriculum and provide a guide and rationale for assessment, planning, and evaluation practices. Practices of assessment, planning, and evaluation are integrated within the principles.
2. **Good:** Teacher/educators describe the principles of *Te Whāriki* and base practice on it. Some are knowledgeable and confident in using *Te Whāriki*, while others require guidance. The strands and goals are predominantly used as a framework for assessment, planning, and evaluation but there is limited or no articulation of how these arise from the principles. There could be greater integration of these practices under the umbrella of the principles.
3. **Fair:** *Te Whāriki* is used mainly as a reference point to justify practice. Some teacher/educators can explain some limited aspects of *Te Whāriki*, eg, learning outcomes, but do not refer to the principles or sociocultural theory.
4. **Poor:** *Te Whāriki* is not used in this ECE service. Alternatively, if *Te Whāriki* is used, teacher/educators are unable to describe the principles or theoretical base, are not confident about using it and are uncertain about what they should be doing in practice to reflect *Te Whāriki*.

#### Implementing a bicultural curriculum

Ritchie (2003) has analysed how *Te Whāriki* can be regarded as a guiding document for bicultural development. She examined the overview statement that "In early childhood settings all children should be given the opportunity to develop knowledge and understanding of the cultural heritages of both parties to the Treaty of Waitangi" (p.9) and the explicit requirements to support the use of te reo Māori, tikanga Māori and particular Māori content (activities, stories and events and Māori ways of knowing and making sense of the world). Educators are expected to be aware of bicultural issues and proactive in identifying racism. Critiquing practice and programmes should include reflections about bicultural aspects. Finally, bicultural development should involve local Māori.

### Indicator ratings for implementing a bicultural curriculum:

1. **Very good:** Field researcher ratings of te reo and tikanga Māori are 4-5. Te reo is highly visible in art forms, books, posters and tikanga Māori practices are upheld. Teacher/educators value whānau within their setting and the importance of making them welcome, including Māori whānau. Teacher/educators want to go further down the track of bicultural curriculum and have done a variety of things to strengthen a bicultural curriculum within their centre, eg, involved local Māori in the programme and in advising on bicultural goals, undertaken reading about Māori concepts, undertaken professional development relevant to a bicultural curriculum. Their philosophy includes a commitment to a bicultural curriculum and this is reflected in planning, assessment, and evaluation. Teacher/educators have a commitment to address issues of racism and other forms of prejudice. Teacher/educators are continuing to learn. They can describe how *Te Whāriki* is a bicultural document.
2. **Good:** Field researcher ratings of te reo and tikanga Māori are 3- 3.5. Teacher/educators value whānau within their setting and the importance of making them welcome, including Māori whānau. Teacher/educators want to go further down the track of developing a bicultural curriculum and recognise they need to learn a lot. They are starting to do some things to increase their knowledge and confidence, such as taking advice from the Māori community, reading about Māori concepts, undertaking professional development and discussing issues relevant to a bicultural curriculum. They talk about some aspects of *Te Whāriki* that have helped them, especially the importance of Māori content.
3. **Fair:** Field researcher ratings of te reo and tikanga Māori are 2- 2.5. Teacher/educators say they use some Māori words or phrases in their programme. They may comment on *Te Whāriki* being published in Māori and English as an example of how *Te Whāriki* helps them to implement a bicultural curriculum.
4. **Poor:** Field researcher ratings of te reo and tikanga Māori within the service are 1-1.5. Teacher/educators are not able to say how *Te Whāriki* enables them to implement a bicultural curriculum and do not see a bicultural curriculum as necessary.

### ECE services meet cultural and language aspirations

This intermediate outcome is relevant to all services, since aspirations for *Te Whāriki* are for it to be a bicultural curriculum and for it to support the cultural identity of all children. It has distinctive additional relevance to Pasifika centres and possibly those centres with a high proportion of children whose ethnicity is other than Pākehā. The rubrics were revised in 2009 following discussions with MOE and reference to literature as follows.

**Very Good:** (This service has goodwill and good intentions, and has already gone some way towards being diversity-literate and practically committed.)

Field researcher rating of *evidence/acceptance of the cultures of all children at the service* is 4-5. Field researcher rating of *inclusive practice* is 4-5. Families from the different ethnic communities represented within the service contribute to the curriculum and assessment. Some narrative assessments are written in the first language of children from families who have limited or no English language. The teachers have actively researched information about these diverse communities and have made connections with people, organisations and resources that support the inclusion of cultural practice, values and resources and contribute to teacher understanding. For example: they have made connections with services offering support and resources, such as Ethnic Migrant Link Service, New Settlers; teachers have researched ethnic cultures and values, cultural sensitivity and respect, and significant cultural practices. Staff and volunteers from the diverse ethnicities of the service are participating in the programme. Teachers/educators value and understand the significance of the child's first languages and cultures that they understand has a direct relationship with the child's self esteem. All parents feel welcome at the ECE service. Parents whose ethnicity is other than Pākehā rate that the family's first language is frequently spoken, families cultural practices are included in the programme and resources from

families cultural backgrounds are used in the programme. Management include the diverse cultural communities in policy development. Management regularly and appropriately monitor and evaluate service provisions for families of diverse ethnic backgrounds.

**Good:** (This service has goodwill, good intentions and is on the way.)

Field researcher rating of *evidence/acceptance of the cultures of all children at the service* is 3. Field researcher rating of *inclusive practice* is 3. Most families from the different ethnic communities represented within the service contribute to the curriculum and assessment. The teachers have researched information about some of the diverse communities and are trying to make connections with people, organisations and resources that support the inclusion of cultural practice, values and resources and contribute to teacher understanding. Staff and volunteers from the diverse ethnicities of the service may participate in the programme. Teachers/educators are developing an understanding of the significance of childrens' first languages and cultures and its link with self-esteem. Most parents feel welcome at the ECE service. Parents whose ethnicity is other than Pākehā rate that the family's first language is sometimes spoken, families cultural practices are sometimes included in the programme and resources from families cultural backgrounds are sometimes used in the programme. Management is developing ways to include the diverse cultural communities in policy development. Management has begun to monitor and evaluate service provisions for families of diverse ethnic backgrounds.

**Fair:** (This service has goodwill, intentions are not informed and it does not appear to be on the way.)

Field researcher rating of *evidence/acceptance of the cultures of all children at the service* is 2. Field researcher rating of *inclusive practice* is 2. Some families from the different ethnic groups represented within the service contribute to the curriculum and assessment. Most written documentation is in English. Some attempts are made to incorporate significant events and resources from different ethnic communities. Language from other cultures is generally not used. Staff have made minimal, if any, effort to research and engage with organisations that might support them in their development and understanding. Some parents from different ethnic groups do not feel welcome. Parents whose ethnicity is other than Pākehā rate that the family's first language is hardly ever spoken, families cultural practices are hardly ever included in the programme and resources from families cultural backgrounds are hardly ever used in the programme. Management does not generally include the diverse cultural communities in policy development. Management does not monitor and evaluate service provisions for families of diverse ethnic backgrounds.

**Poor:** (This service has not invested in meeting language and cultural aspirations. Teachers may convey a view that it is not part of their job or is out of their league. Teachers may have a fixed mindset about diversity and their role in it.

Field researcher rating of *evidence/acceptance of the cultures of all children at the service* is 1. Field researcher rating of *inclusive practice* is 1. Few or no families from the different ethnic groups represented within the service contribute to the curriculum and assessment. All written documentation is in English. Few or no attempts are made to incorporate significant events and resources from different ethnic communities. Language from other cultures is not used. Staff have made minimal or no effort to research and engage with organisations that might support them in their development and understanding. Many parents from different ethnic groups do not feel welcome. Most parents whose ethnicity is other than Pākehā rate that the family's first language is never spoken, families cultural practices are never included in the programme and resources from families cultural backgrounds are never used in the programme. Management does not specifically include the diverse cultural communities in policy development. Management does not monitor and evaluate service provisions for families of diverse ethnic backgrounds.

## Collaborative relationships between ECE services, with parents and whānau, schools, health and social services

### Dimensions of collaborative relationships

We measured two dimensions reflecting the intermediate outcomes:

- **Cohesion of education 0–8 years.** Indicators are relationships with schools to support transition.
- **More integrated services.** This includes an assessment of service relationships with parents in the interests of children and on relationships with health and social services, Māori communities/hapū/iwi, and Pasifika communities.

The focus of service relationships with parents is on parent partnerships that support pedagogical aims rather than partnerships with parents for fundraising, management, working bees and other activities that occur in an ECE setting. The rationale for focusing on pedagogical aspects is that children's learning and well-being can be reinforced when parents and teacher/educators share pedagogical aims and each setting reinforces the other. *Kei Tua o te Pae. Assessment for Learning: Early childhood exemplars* (Ministry of Education, 2005b) demonstrates some ways in which this can happen.

**Table 2: Rubric for determining value of relationship with parents and whānau (Data from parent survey)**

Rating	Description	Numerical rating	Weighting
Good	100% of parents report that they feel welcome in the service	3	3
	No parents report that they would like more opportunity to talk to teacher/educators	3	2
	Over 95% of parents report that they talk to the teacher/educator about child's progress or behaviour in the centre	3	3
	Over 85% of parents report that they talk to the teacher/educator about what the child does at home	3	2
	Over 80% of parents report that they talk to the teacher/educator about what they can do to help child's learning	3	2
	Over 95% of parents think teacher provides enough information about child's progress, interests, abilities	3	3
	Over 95% of parents rate as very useful or useful, information about child's learning programme	3	2
	Over 95% of parents rate as very useful or useful information about child's progress, interests and abilities	3	3
	Over 95% of parents rate as very useful or useful, information about how happy and settled the child is	3	3
	Over 50% of parents rate as very useful or useful, information about ECE curriculum	3	1
	Over 95% of parents report that they contribute to assessment and planning for their child	3	3
	Over 95% of parents report that they follow up on activities and experiences at home	3	2

Rating	Description	Numerical rating	Weighting
Adequate	98-99% of parents report that they feel welcome in the service	2	3
	1%–10% of parents report that they would like more opportunity to talk to teacher/educators	2	2
	85-95% of parents report that they talk to the teacher/educator about child's progress or behaviour in the centre	2	3
	50 -85% of parents report that they talk to the teacher/educator about what the child does at home	2	2
	40-80% of parents report that they talk to the teacher/educator about what they can do to help child's learning	2	2
	80–95% of parents think teacher provides enough information about child's progress, interests, and abilities	2	3
	Parents rate as very useful or useful, information about child's learning programme (50-95%)	2	2
	Parents rate as very useful or useful information about child's progress, interests, and abilities (50-95%)	2	3
	Parents rate as very useful or useful, information about how happy and settled the child is (50-95%)	2	3
	Parents rate as very useful or useful, information about ECE curriculum (30-50%)	2	1
Poor	70-95% of parents report that they contribute to assessment and planning for their child	2	3
	70-95% of parents report that they follow up on activities and experiences at home	2	2
	Less than 98% of parents report that they feel welcome in the service	1	3
	More than 10% of parents report that they would like more opportunity to talk to teacher/educators	1	2
	Less than 85% of parents report that they talk to the teacher/educator about child's progress or behaviour in the centre	1	3
	Less than 50% of parents report that they talk about what the child does at home	1	2
	Less than 40% of parents report that they talk about what they can do to help child's learning	1	2
	Less than 80% of parents think teacher provides enough information about child's progress, interests, and abilities	1	3
	Parents rate as very useful or useful information about child's learning programme (less than 50%)	1	2
	Parents rate as very useful or useful information about child's progress, interests, and abilities (less than 50%)	1	3
Parents rate as very useful or useful information about how happy and settled the child is (less than 50%)	1	3	
Parents rate as very useful or useful information about ECE curriculum (less than 30%)	1	1	
Less than 70% of parents report that they contribute to assessment and planning for their child	1	3	
Less than 70% of parents report that they follow up on activities and experiences at home	1	2	

We have weighted items as 'very important' that involve the teacher/educator talking with parents about their own child's progress, behaviour, and well-being, parents finding this useful, and parents contributing to assessment and planning for their child. Also rated as 'very important' are parents feeling welcomed in the centre since this seems to be a basic prerequisite to positive relationships. The *Revised Statement of Desirable Objectives and Practices (DOPs)* (Ministry of Education, 1996a) requires educators to provide opportunities for parents and whānau to have these

discussions and feel welcome. *Kei Tua o te Pae. Assessment for Learning: Early childhood exemplars* (Ministry of Education, 2005b) provides exemplars of documented assessments that can invite the participation of children, families, whānau, teachers and beyond (Book 5, p.2) and the value of doing this.

To get a score for the dimension *Relationships with parents and whānau*, the weighted mean of the ratings for the items is calculated: ‘very good’: 2.5–3; ‘good’: 2.2–2.49; “Adequate”: 1.7–2.1; ‘poor’: 1–1.6.

The characteristics of relationships with health and social services were assessed through management interviews in 2004 and management questionnaires in 2006 and 2009.

**Table 3: Rubric for determining value of relationship with health and welfare**

Rating	Description
Very good	<p><b>Health</b> ECE service makes referrals to health service, professionals regularly visit to check children's health (once a term or more), professionals talk to parents on regular basis</p> <p><b>Welfare</b> Centre understands services, has info pamphlets, reps sometimes visit, welfare services refer children to ECE centre, ECE service makes referrals</p>
Adequate	<p><b>Health</b> ECE service makes referrals to health service, professionals visit to check health but only if a visit is requested, professionals talk to parents but this is infrequent</p> <p><b>Welfare</b> Centre understands services, but has no info pamphlets/reps do not visit, ECE service makes referrals but welfare services do not refer children</p>
Poor	<p><b>Health</b> There is no/limited contact</p> <p><b>Welfare</b> Centre does not understand services available and there is no/limited contact</p>

The following criteria provide a rating for the dimension *Relationships with health and welfare*:

- ‘very good’: Both rated very good
- ‘good’: One rated very good, one rated adequate
- ‘Adequate’: Both rated adequate
- ‘poor’: One or both rated poor.

### **[To what extent, in what ways, and how effectively] has the participation in ECE supported parents’ ability to engage in work or training?**

We gathered the following relevant information:

Parents’ rating of:

Question 5 (k) Why did you want your child to go to an ECE service?

Question 7 about hours that suit (these are analysed under the participation outcome)

Question 13 about why more than one ECE service or care arrangement is used

Question 32 about whether parent is in paid work or training

Question 33 about what parent usually does while at this ECE service.



The parent questionnaire was expanded with questions specifically about work and training.

Questions 37–43 asked respondents about:

- whether parent had taken part in work or training course in last 12 months
- usual childcare arrangements while in work or training
- whether services available at right times to meet needs
- where service located and whether this location is convenient
- whether disruptions have affected paid employment.

These data were collected for the first time in 2006 and treated as baseline in that year. Responses were described and analysed in relation to parent and service characteristics. Changes have been analysed in relation to strategic plan actions in 2009.

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## Appendix D: Descriptions and Vignettes of ratings for teaching and learning practices

**Table 1: Vignettes of ‘good’ and ‘fair’ assessment**

Rating	Description	Vignette
Good assessment	Assessments are made on every child, although this may be infrequent, eg, soon after starting and once a year. Assessments are generally linked to <i>Te Whāriki</i> and include learning dispositions. Assessments include the context but this may be limited, eg, include child's exploration of her/his environment but less about interactions with people. Teacher/educators analyse assessments to decide on next steps to enrich learning but evidence of understanding of how and why learning is occurring may be limited. Children and whānau have access to portfolios but may have to ask for these. Parents and children sometimes contribute to assessment but this is not a common practice	We are doing Learning Stories—a series of Learning Stories with photos and ‘What's next’ and that goes in the child's profile book. We also have forms with quick observations related to the strands and to other records. There's a lot we build up about the child using learning dispositions. The photos and things we write and say make it easy for parents to see what the child is doing
Fair assessment	Assessments indicate some recognition of learning that is occurring but this is limited to a narrow range of learning areas and the focus is predominantly on knowledge and skills, not learning dispositions. The context of learning is seldom or never included. There is limited understanding of how learning has occurred or of progression over time. Teacher/educators show some awareness of the need to recognise and support learning but there is no evidence that assessments are analysed to decide on how this might happen. Assessments are made by teacher/educators without input from children, family, and whānau. Teacher/educators may ‘tell’ parents and whānau about their child but do not invite contribution.	We do [assessment] through Learning Stories but I'm finding that the Learning Stories and the ‘What next’ aren't actually followed up. Teachers do the assessment but not every child has a portfolio as some staff only come twice a week. I like to take time with the Learning Stories and make it a good read but I've been told to rush through them. I think our parents struggle with the concept of parent voices.

**Table 2: Vignettes of ‘very good’ and ‘poor’ planning practices**

Rating	Description	Vignette
Very good planning	Planning sits within the framework of <i>Te Whāriki</i> and is integrated with the practices of assessment, evaluation, and self-review. It focuses on enhancing dispositional learning, as well as skills and knowledge. Planning is driven by evidence-based formative assessment, for individual and groups of children, and programme evaluation. Teachers ask critical questions and critique their work during planning practices. Planning includes teacher/educators' ideas on resources, interactions and/or experiences and possible directions. Parents' and children's contributions are included.	We plan from the children's interests and what we've observed, parent views and incidental recordings. The purpose is to set goals for the children's learning ‘journey’. [Then] journeys are turned into possibilities, the maybes and the mights. Planning focused in <i>Te Whāriki</i> is a reminder of what to keep in mind.
Poor planning	Teacher/educators are unable to describe how they plan and cannot show examples of this. Alternatively, if plans are made, these describe activities/themes to be followed, eg, writing activities such as tracing letters on a letter board, seasons. The focus is on the activity or theme. Plans do not emerge from assessment or evaluation. Plans tend to be uniform for all children or all children of a certain age group. Plans are formulated by teachers alone. Plans may be made for a whole term in advance	We have a programme book. [It] sometimes changes but we plan monthly and we plan by [the] yearly calendar [for events], eg, Easter. The main purpose of planning was [so] you are prepared so you can teach the children

**Table 3: Vignettes of ‘good’ and ‘fair’ self-review practices**

Rating	Description	Vignette
Good self-review	A self-review is undertaken, although this is mainly done for accountability reasons and is regarded as of limited benefit to teaching and learning. The focus is stated, evidence collected about the focus and decisions made from discussion of evidence. The process, however, may lack critical edge. Self-review involves management, parents, and whānau and teacher/educators but the group of parents/whānau who participate tend to be committee members or often the same small group.	The management and self-review plan is tied in together. The last ERO review they wanted more documentation. I tried to find out what others were doing. Nobody said “This is a good system”. I went on a professional development course and learnt this one. We like it and it is clear, simple, and useful. There are five areas: Health and Safety; Parents and Community; Professional Development; Repairs and Maintenance; and Equipment. We have just started this year. All five areas are looked at over a year. It keeps you on track and all areas are linked to the DOPs
Fair self-review	A focus is set for self-review and evidence about the focus is generated. Self-review tends to be across a narrow range of practices. Results of the review are filed, used to justify current practices or take a course of action that has already been decided. Self-review may involve management and teacher/educators but rarely includes parents and whānau.	We’ve just got our Operations Manual done up. Probably just me has looked at it. But I am pulling out a few basic policies and will leave them around where parents can look at them when they come to sessions, read through them and sign if it’s okay or put down notes if things need to be changed. We haven’t reviewed any policies for a long time. One of the admin people whipped up our Operations Manual for us

**Table 4: Vignettes of ‘very good’ and ‘fair’ evaluation practices**

Rating	Description	Vignette
Very good evaluation	Teacher/educators make evaluations linked to <i>Te Whāriki</i> principles, strands, and goals. Evaluations are made on the basis of data generated through assessments for children’s learning and make use of tools that enable investigation, eg, action research tools that encourage teacher/educators to collect data and reflect on their programme. Use of these tools creates challenge, eg, observations of the programme by a ‘critical friend’, a parent survey. Viewpoints of parents/whānau and children are sought and responded to. Teacher/educators may construct tools themselves to suit their ECE community. Evaluations highlight teachers’ interactions and/or thinking that could be enhanced. Evaluation is followed through into planning and implementing structures, systems, and practices to improve the implementation of <i>Te Whāriki</i> and enhance children’s experiences. There is evidence of teacher/educators’ critical reflection during the process of evaluating.	Evaluation is really all tied up with everything. [It’s] a good point for discussion and reflection as to the possible changes. We tend to be quite holistic—including evaluation, assessment, and planning. Who is involved? —depends on what we are doing. It comes back to our bicultural journey and where we had come to ‘pre Māoriora’, what that would look like and where we were now. Became a story for our parents, a resource that parents could see how we worked and for us to see if we had made any difference, any growth.
Fair evaluation	Evaluations generally involve teacher/educators discussing how the programme went. Assessments are not considered within the evaluation and there is no analysis of the teachers’ roles. The focus is on evaluating how activities went and resources. Plans are made for a subsequent session/s—these are about activities.	End of the term we look through the planning and goals for children, what we have achieved and what we set out to do. If it’s not been achieved we put it in the planning for the next term. We [do this in a] staff meeting, look at the resources, what worked and what is working. There is an evaluation of individual children when they leave. A lot of the evaluation is in our heads

**Table 5 Vignettes of “very good” and “fair” understanding of *Te Whāriki***

Rating	Description	Vignette
Very good	All teacher/educators are highly knowledgeable about <i>Te Whāriki</i> . They confidently describe the principles and theoretical base of <i>Te Whāriki</i> . The principles are described as the basis for the curriculum and provide a guide and rationale for assessment, planning, and evaluation practices. Practices of assessment, planning, and evaluation are integrated within the principles.	The principles are empowerment, holistic development, relationships, and family and community—they reflect our philosophy. Everything relates back to the way we teach. Gives us permission to design our curriculum around the four principles—it's the way to go. It's a strong curriculum—the benchmark remains—I think we are lucky to have it.
Fair	<i>Te Whāriki</i> is used mainly as a reference point to justify practice. Some teacher/educators can explain some limited aspects of <i>Te Whāriki</i> , eg, learning outcomes, but do not refer to the principles or sociocultural theory.	Gives us prompts and ideas. Often when you open it you find it covers more than you realise. Don't know where it is right now—we use it for assistance but can't remember where it is.

**Table 6 Vignettes of “very good” and “poor” implementation of a bicultural curriculum**

Rating	Description	Vignette
Very good	Field researcher ratings of te reo and tikanga Māori are 4-5. Te reo is highly visible in art forms, books, posters and tikanga Māori practices are upheld. Teacher/educators value whānau within their setting and the importance of making them welcome, including Māori whānau. Teacher/educators want to go further down the track of bicultural curriculum and have done a variety of things to strengthen a bicultural curriculum within their centre, eg, involved local Māori in the programme and in advising on bicultural goals, undertaken reading about Māori concepts, undertaken professional development relevant to a bicultural curriculum. Their philosophy includes a commitment to a bicultural curriculum and this is reflected in planning, assessment, and evaluation. Teacher/educators have a commitment to address issues of racism and other forms of prejudice. Teacher/educators are continuing to learn. They can describe how <i>Te Whāriki</i> is a bicultural document.	Field researcher ratings were 4 on each occasion. Te reo Māori was visible in print material on walls, eg, wall display of trip to marae. A good range of books were available in Māori. Te reo Māori was spoken along with English (eg, “That might be the whale's tinana”) and in action songs, waiata and counting. Teachers described their philosophical approach as “working with the mana and wellbeing of the child” For them the bicultural curriculum is “right on top”. It is concerned with holistic development, well-being and belonging. The teachers do their best to incorporate te reo and tikanga Māori into the programme. As much as they can, they draw on local knowledge. They have formed a close reciprocal relationship with the local marae. Emphasis is given to conservation and Māori values of caring for the environment. Above all teachers are open and “step outside their comfort zone”.
Poor	Field researcher ratings of te reo and tikanga Māori within the service are 1-1.5. Teacher/educators are not able to say how <i>Te Whāriki</i> enables them to implement a bicultural curriculum and do not see a bicultural curriculum as necessary	Field researcher ratings were 1 – ‘Poor. Teachers emphasised the importance of multiculturalism but did not give a special place to biculturalism. “It's not only Māori, like Māori is obviously important but... there are other nationalities and cultures as well. Incorporating those.” Teachers got information mainly from parents and tried to incorporate this into the ‘children's learning’. There was a ‘cultural wall in each room.