

## Evaluating New Zealand early childhood education professional development: Access, barriers and effectiveness.

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*Pathways to the Future: Nga Huarahi Arataki*, the ten year strategic plan for early childhood education (ECE) in New Zealand, identified reviewing the delivery of professional development as one strategy for 'promoting the effective delivery of *Te Whariki*' (Ministry of Education, 2002, p. 15) within the overall goal of improving quality within ECE services. This paper reports on aspects of a national evaluation of ECE professional development undertaken for the Ministry of Education in 2005–06. The paper describes the multi-method approach taken, and highlights findings in two key areas: issues around access to professional development and barriers to practitioners engaging in PD, and the effectiveness of professional development programmes in supporting and sustaining shifts in pedagogical practices underpinned by *Te Whariki*.

**Key words:** professional development; early childhood; evaluation; pedagogical practices

### INTRODUCTION

Improving the quality of early childhood education (ECE) services is a key goal of New Zealand's strategic plan for ECE, *Pathways to the Future: Nga Huarahi Arataki* (Ministry of Education, 2002). One strategy identified to achieve this goal is to 'promote the effective delivery of *Te Whariki*' (p. 15), the national curriculum for early childhood education, covering all licensed services for children 0–6 years (Ministry of Education, 1996). Since *Te Whariki* appeared in draft form in 1993 the Ministry of Education (MOE) has funded professional development (PD) programmes through independent contractors to support its implementation. Specific contracts were let for this purpose alongside general professional development programmes from 1995–1998. Since 1999 all ECE PD contracts have been required to support the teachers' use of *Te Whariki*. Funding for these programmes has been based on services being able to access programmes at least once within a three-year cycle.

A review of the effectiveness of ECE PD programmes in supporting the delivery of *Te Whariki* was identified as an action within the Strategic Plan (Ministry of Education, 2002), and in 2005 Victoria University was contracted to undertake this evaluation. Earlier reviews of ECE professional development contracts (Duthie Educational Consultancy, 1996; Gaffney, 2003) addressed MOE-funded professional development programmes only, seeking the perspectives of services and teachers engaged in these together with the views of providers delivering such programmes. In contrast, this evaluation took a broader stance by evaluating the delivery of MOE-funded PD contracts within the wider context of ECE professional development generally, and employed a more extensive evaluation methodology. Thus, the size and scope of this evaluation went beyond previous evaluations of ECE professional development in New Zealand.

In the context of this evaluation, professional development was conceptualised as *formal* teacher learning activities that involve external facilitation (Buysse, Winton, and Raus, 2009), rather than the informal learning that may occur through collegial discussions and in self-study activities. The Ministry of Education identified three key areas of interest that framed the evaluation: an analysis of current PD provision, delivered both through MOE-funded programmes and through other providers; an evaluation of the effectiveness of PD in supporting and sustaining changes in practice that positively impact on children's learning outcomes; and the identification of strategies for improving MOE-funded PD. The findings reported here draw on data from the first focus area to discuss access to professional development and barriers to practitioners engaging in PD, and from the second focus area to examine the effectiveness of PD programmes in supporting and sustaining shifts in pedagogical practices underpinned by *Te Whariki*.

### **Effective professional development**

Despite significant research attention towards teachers' professional development and learning, debate continues as to what constitutes effective professional development (Borko, Jacobs, Eiteljorg and Pittman, 2008; Buysse et al., 2009). Several factors have been identified as contributing to effective PD, including on-going engagement (Guskey, 2000) within a community of practice (Bayes, 2005; Jordan, 2003; Webster-Wright, 2009) which has access to ongoing external support (Depree and Hayward, 2000; Lidington, 2000).

Efforts to understand the empirical research on teacher learning have resulted in two best evidence syntheses in New Zealand focused on professional development and learning in early childhood settings (Mitchell and Cubey, 2003) and in the school sector (Timperley, Wilson, Barrae and Fung, 2007). Mitchell and Cubey (2003) identify eight characteristics of effective PD linked to enhanced pedagogy and children's learning in early childhood settings. Such PD draws on practitioners' existing knowledge and understanding and assists awareness of their own thinking and actions, as well as positioning them as agents investigating their own pedagogy, analysing data from their own settings, and engaging in critical reflection. In addition effective PD provides theoretical and content knowledge, supports inclusive practices and changes practitioners' beliefs, practices and attitudes.

Timperley et al.'s (2007) synthesis of empirical literature identified twenty-two factors located within four core aspects—context, content, activities and learning processes—of the professional development process that have a positive effect on students learning. The existence of many of these factors (for example, extended time for opportunities to learn or participation in a community of practice) was necessary but of themselves did not automatically lead to effective PD.

Professional development is more likely to be effective when participants are active and purposeful (Hampton, 2000), when teachers have control over the PD programme (Blenkin and Kelly, 1997) and see it as part of their ongoing, lifelong learning (Gaffney, 2003). Management support for PD is an important influence on the success of programmes (Gaffney, 2003), particularly where this enables teachers to implement change (Lidington, 2000).

The quality of facilitation within PD programmes is also important. Mitchell and Cubey identified several attributes of effective facilitators including having strong theoretical, content, and pedagogical knowledge, and being able to understand and to challenge practices and ideology that disempower the interests of children and families (Mitchell and Cubey, 2003, p.xiv). The importance of an outside facilitator has been noted in several New Zealand studies focused on the implementation of *The Quality Journey* (Ministry of Education, 1999) where participants reported that they would not have engaged with the document without such support (Depree and Hayward, 2000; McLauchlan-Smith et al., 2001; Wansbrough, 2003; White, 2003). Similarly, Lidington (2000) found external support was important for participants' trialling implementation activities.

Teacher attitudes influence the learning of children from diverse families (Mitchell and Cubey, 2003), especially when these attitudes result in lowered expectations of their learning. Professional development that challenges such assumptions (Alton-Lee, 2005; Bishop et al; 2003; Timperley, Phillips, Wiseman and Fung, 2003) helps teachers move to a credit view of children and their families. The collection and analysis of data, often supported by an 'outsider' (the facilitator) (Timperley et al., 2003) able to confront teachers with data from video and assessment evidence, enables teachers to critique their practice and encourages pedagogy that better builds upon children's strengths and home experiences.

### **Background to the New Zealand context**

In the evaluation reported here, professional development refers to programmes offered to teachers and educators in licensed, chartered ECE services<sup>1</sup> in New Zealand, often referred to as inservice professional learning, and does not include teacher education programmes (preservice). Most programmes are delivered by MOE-funded contractors, selected through a contestable process. Participation in the programme is generally at no cost to the participants. Fourteen providers of ECE PD programmes were contracted to the MOE, including Universities, Colleges of Education, private organisations, and independent ECE organisations, at the time of this evaluation.

A variety of delivery approaches were used by the MOE-contracted providers in their programmes. Almost all providers offered *whole-centre* programmes where all teaching staff from a service participated in a common PD focus, and most used *cluster-group* programmes where practitioners from several services met together for workshops followed by individual sessions in each service setting. Opportunities for individuals to attend seminars, short courses or networks usually constituted a minor component of the programmes offered by the MOE-funded providers. Professional development sessions were led by facilitators who used a range of approaches, including meeting with staff at their workplace, observing teacher practices during the programme, and facilitating workshops, seminars and networks.

Beyond MOE-funded PD programmes, an array of other professional development opportunities is available. Independent (including private and not-for-profit) organisations and government agencies offer PD opportunities to the wider ECE community, often at a cost to participants, and many umbrella organisations organise and provide PD for staff employed in their services. Attendance at annual conferences offered by early childhood organisations as well as New Zealand's 4-yearly Early Childhood Convention is increasingly popular with teachers, particularly where these address specialist or philosophical PD needs (e.g., Montessori or Steiner teacher conferences). More broadly based research conferences are also attracting some teachers. The Teachers Refresher Course Committee (TRCC), a MOE-funded group of teacher representatives across the education sector, organises courses that ECE teachers are able to access. These residential courses are usually 3–5 days in length and allow for in-depth engagement with a topic and networking with teachers who have similar interests (Thornton, 2002).

Currently, not all teachers in New Zealand ECE services are qualified and registered. Thus, professional development is not solely a post-qualification activity as it is in the school sector and participants in early childhood PD programmes often include a mix of trained and untrained personnel from services. At the time of the evaluation there was a requirement for a person with responsibility for the teaching and learning in each ECE service to hold an ECE teaching qualification and be a registered teacher. For kindergarten services, all teachers were required to be qualified and registered.

### **Focus of New Zealand ECE PD programmes**

MOE-funded professional development programmes have explicitly encouraged teachers to engage with *Te Whariki* and to explore the complexities of pedagogical practices demanded by the curriculum's theoretical underpinnings. Early PD programmes, established to support the introduction of *Te Whariki*, focused on exploring the curriculum document and understanding its principles, strands and goals. Initial concerns (e.g., Cullen, 1996) that teachers did not recognise the shift in pedagogical thinking inherent in the curriculum document, interpreting it instead as confirming existing developmentally-based practices, have persisted. Meade (2000) has noted the continuing dominance of Piagetian theory whilst Anning, Cullen and Fler (2009) argue that 'it has not been easy for educators to appreciate the complexity of the *Te Whariki* curriculum, or to take the more proactive teaching role envisaged by a socio-cultural philosophy' (p. 20). More recent programmes have shifted from the earlier focus on the structure of the curriculum document with teachers now scrutinising their own practices in order to improve the quality of interactions with children and their families.

More recently, programmes have involved teachers in scrutinising their own practices using a sociocultural framework, within the context of assessment for learning, planning and evaluation. The early childhood assessment exemplars, *Kei Tua o te Pae* (Ministry of Education, 2005) were newly introduced to the sector around the time of the evaluation (2005–06) and have significantly influenced both PD programmes and teacher practices.

### **EVALUATION METHODOLOGY**

Evaluating the effectiveness of professional development programmes is challenging. Evaluations undertaken at the end of a programme, regardless of design, have a limited ability to measure changes in practice as consolidating and assimilating new practices into a service's culture may take a year or two to show effect (Gould, 1999; Guskey, 2000). In this external evaluation, two factors influenced the research design: firstly, the evaluation was focused on recently completed professional development programmes where long-term evidence of change was not available, and secondly, the project parameters did not allow for direct observation by the evaluators of participants' practices pre- and post-involvement in professional development activities. Within these constraints a multi-method evaluation was designed, using a wide range of sources to gather data, as both a process evaluation (focused on the PD delivery processes) and a formative evaluation (focused on how the delivery of PD could be improved and enhanced to meet MOE strategic goals). An in-depth literature review informed the evaluation design and development of research instruments.

A national survey, comprising 47 quantitative and two qualitative questions, was sent to a randomly selected sample of 1439 (46%) licensed and chartered early childhood services across New Zealand, excluding *kahanga reo* which were not included in the evaluation. Over-sampling was used to ensure statistically valid numbers of specific services in each geographical region of the country. A 52% (N=743) return rate of the questionnaires was achieved. Further in-depth qualitative data was gathered through six group interviews with teachers held across New Zealand, designed to ensure that perspectives from diverse services and particular regional groups were heard. Telephone interviews were conducted with all fourteen MOE-funded PD contract directors for the 2004/05 contract years. Requests for a telephone interview were made to the major national ECE umbrella organisations with key personnel in six organisations agreeing to be interviewed. Six group interviews were conducted with personnel from the MOE Head Office and regional offices. Final milestone reports from each of the 2004 contractors were also analysed.

The survey of early childhood services and teacher group interviews required teacher self-reports of their PD experiences and of the changes that had resulted from their engagement in PD. The limitations of self-report data were offset somewhat by the document analysis which enabled providers' observations of changes in practices to be considered, and by the interviews with contract directors, MOE officials, and umbrella organisations. The latter interviews, in particular, offered insights into the changes that organisational leaders had observed in teacher practices within their organisations and which some noted were reflected in external evaluation<sup>ii</sup> reports on the services.

The use of a mixed-method approach (Green, 1998) enabled the inclusion of both quantitative and qualitative data, and allowed for the triangulation of data from different methodologies in order to increase the validity of interpretations. Wherever possible, results from quantitative and qualitative sources were analysed for triangulation. Data from the quantitative source (questionnaire) were used as triggers for exploration and explanation in the interviews. In this way the quantitative and qualitative methods were interactive and supportive in uncovering perspectives on ECE PD experiences and provision in New Zealand. A fuller description of the methodology and the evaluation tools used can be found in the full report on the website [www.educationcounts.govt.nz/publications/ece](http://www.educationcounts.govt.nz/publications/ece) (Cherrington and Wansbrough, 2007).

As Victoria University was a contractor delivering one of the MOE-funded PD contracts, significant efforts were made to avoid perceptions or actual conflicts of interest, including using members of the evaluation team without ECE backgrounds to conduct those interviews where a perceived conflict might have arisen. Statistical analysis of the quantitative survey data was undertaken using SPSS whilst the qualitative data from the interviews and survey were coded and analysed using QSR N6.

This article draws on quantitative data from the survey, together with qualitative data from the interviews with teachers, contract directors, MOE officials and umbrella organisations and from the document analysis to discuss access to professional development and barriers to practitioners engaging in PD, and to examine the effectiveness of PD programmes in supporting and sustaining shifts in pedagogical practices underpinned by *Te Whariki*.

## **ACCESS TO ECE PROFESSIONAL DEVELOPMENT**

Data concerning which services were accessing PD nationally, by region and by service type were gathered from the survey and from provider milestone reports. Inconsistent reporting styles in the milestone reports meant that this information was not uniformly provided, and thus the survey of services provided the most accurate indication of services' access to PD. Survey data indicate that the proportion of PD accessed through MOE-funded contracts varied considerably at the national level. Whilst 26% of respondents received more than three-quarters or all of their PD through these contracts, 38% received less than one-quarter or none at all. When these data were cross tabulated by service type they revealed that only 12% of kindergartens accessed three-quarters of their PD from MOE-funded programmes compared to 25% of home-based services, 36% of education and care services and 37% of playcentres.

When asked how difficult it was to access PD, nationally just over one-quarter (28%) of services found it very difficult or difficult to access any professional development through MOE-funded contracts; similarly 29% of respondents also found it difficult to access PD through non MOE-funded providers. In contrast to these national results, the data by region revealed wide-spread variations with between 21–75% of services reporting that they found it very or quite difficult to access MOE-funded PD. These results did not show clear patterns of difficulty in

access by type of region: whilst respondents in five regions without large cities (West Coast, Northland, Tasman/Nelson/Marlborough, Gisborne and Bay of Plenty) had more difficulty so too did two districts with major cities (Waikato and Canterbury). Those with low rates of difficulty also varied in terms of population density: Auckland and Manawatu/Wanganui have large population centres whilst Taranaki, Hawke's Bay and Southland have smaller cities. However, across the country those services who identified themselves as rural in the survey reported greater difficulty in accessing PD. Data from the national survey, together with data from the interviews with providers, umbrella organisations and teachers suggests that rural and isolated services find it more difficult to access PD and face greater costs in terms of travel and time than do other services. In addition, some services experienced isolation due to their special character (e.g., Montessori services) which created difficulties in accessing appropriate PD.

Due to the inconsistent reporting styles noted above, analysing service participation in PD programmes through data presented in provider milestone reports relied at times on assumed groupings. For example, where a provider offered programmes using a cluster-group model and did not include the actual number of services enrolled, a notional figure of four services per cluster was adopted. Cluster group enrolment figures (whether actual or notional) were then added to the numbers of services enrolled in individual whole-centre PD programmes in order to identify the overall number of services accessing PD within specific regions. Data from the milestone reports suggest that major metropolitan areas fared worst in terms of accessibility with 17% of services in the Auckland and Wellington regions accessing PD programmes for whole-centre or cluster-centre programmes followed by the Canterbury (20%) and Waikato (23%) regions. Some areas classed as more geographically isolated (e.g., Southland, Otago, Northland) had higher rates of involvement in whole-centre or cluster-centre PD programmes, with between 32% and 37% of services in these regions accessing this MOE-funded PD. Inconsistencies between the data from these milestone reports and the survey data, are due, in part, to the milestone reporting approaches. In addition, services' perceptions may not completely match actual difficulties in accessing whole-centre or cluster-centre PD.

The survey data also revealed considerable variation in access to PD by service type. Kindergartens (37%) and home-based services (36%) reported having the greatest difficulty in accessing MOE-funded PD in comparison with education and care services (23%) and playcentres (30%). Data from the provider milestone reports reflect these results: when analysed by service type, the milestone reports revealed that the number of kindergartens (9%) and home-based care services (11%) accessing this form of PD were very low compared to education and care, playcentre, and Maori immersion services (26%). The very high rates of involvement of Pasifika services (70%) in whole-centre PD are skewed by the limited numbers of Pasifika services overall and the delivery of a specific contract focused on these services in 2004.

### **Participation in non MOE-funded PD**

The provision of professional development opportunities by diverse organisations outside of the MOE-funded PD contracts has grown steadily in recent years. Engagement in such PD is most likely to be through participation in short courses (74%) and conferences/symposia (62%). The lower numbers of survey respondents participating in TRCC (28%) and Rural Education Action Programme (REAP) courses (19%) indicates their more limited availability nationally and the more specific nature of these programmes. Across these four types of non-MOE funding PD, respondents' participation was influenced by their interest in the topic or focus, the quality of speakers, and the opportunities for networking.

### **Determining engagement in PD**

Both the qualitative survey questions and the interviews revealed that access to MOE-funded PD is influenced by the degree to which the service (or its umbrella management organisation) actively seeks PD that is tailored to its needs or, alternatively, waits for PD information to come from the contracted provider(s) in their area. With funding designed to enable one-third of services to access PD in a calendar year, reticent services are likely to have reduced, or no, access to MOE-funded PD.

Teachers responding to the survey were asked to identify from a list of six possible choices how decisions about attendance in PD were generally made. Overwhelmingly, decisions are made by teachers rather than imposed by management or external agencies such as the Education Review Office. However, significant variations exist by service type as to how decisions are made even when these are made by teachers. Kindergarten teachers were much more likely than respondents in other services to make decisions about their PD as a result of their appraisal plans whilst home-based and playcentre respondents were most likely to make decisions based on an individual's spontaneous request. Education and care services were equally likely to make decisions based on the spontaneous requests of individual teachers and in accordance with the service's vision and goals. The timing of the information about available MOE-funded PD was identified in the teacher group interviews as an aspect that could be improved to facilitate more deliberate connections between appraisal processes and planning PD requirements.

Interview data revealed the importance of a continuum of engagement in PD that had at one end individuals participating in one-off events such as short courses, through to several staff attending such events, through to whole-centre PD and on to cluster whole-centre PD where practices are examined with colleagues from other services. Ensuring PD provision along such a continuum is supported by Guskey's (2000) recommendation that PD plans are based on a combination of models. Sands (2005) illustrated this shift in engagement when highlighting how her centre had moved from perceiving PD as something to be passively involved in to feeling empowered to determine the PD process. Providing a variety of PD models enables teachers to access PD that fits with their professional and personal lives (Jordan, 2003; Mephram, 2000).

### **Barriers to PD participation**

The evaluation sought to ascertain what factors created barriers to teachers' participation in MOE-funded PD. Several questions within the survey teased out respondents' views on issues previously identified in the literature as potential barriers (Baker and Lorrigan, 2000; Gaffney, 2003; Irvine and Lovatt, 1996), including the cost of participation. A significant barrier for almost one-third (31%) of services was the cost of engaging in PD with a further 45% reporting that costs impacted somewhat on their participation. Kindergarten, playcentre and home-based service respondents reported being more affected by cost than did education and care services.

Interview data indicate that the costs of participating in PD included travel, relievers, and reimbursement to staff attending sessions after hours, beyond any costs directly associated with non-MOE funded PD (such as course fees, conference registration, and accommodation). Conferences and other such opportunities were frequently accessed on an individual basis only and were often beyond the economic means of services. Teachers generally found it easier to attend conferences or other PD opportunities hosted by umbrella organisations as these can be tailored to the services' operating patterns.

In addition to asking respondents about the impact of cost, the survey also asked respondents to rate a number of barriers to engaging in effective PD. The most significant barriers to participation were identified as staff workloads, obtaining relief teachers, difficulty in finding time to attend, not being able to include the whole team, and unsuitable times for meetings. These data

were supported by the qualitative interview data which suggest that the barriers that impact on participation in PD are complex and interwoven. Interviewees identified the need for teachers within the service to complete their initial teacher education programme in order to meet qualification requirements as the biggest impact on the ranking of the three highest ranked barriers, as the demands of completing their study mean that many staff were tired and unwilling to commit to further PD.

The negative effect of the shortage of qualified relievers, resulting in qualified teachers being unable to take time away from the service to pursue PD, emerged through the interview data<sup>iii</sup>. Qualified or senior teachers in services reported curtailing their own PD due to a lack of trained relievers and the need to maintain a qualified staff count for funding purposes while untrained teachers were able to be more easily released.

Other barriers to participation identified through the interviews include the shortages of qualified staff, leading to high rates of staff turnover in some areas; the impact of travel times (for urban as well as rural services); dysfunctional teams with weak organisational cultures; and a lack of non-contact time for teams to engage in PD opportunities together.

### **Effectiveness of ECE Pd programmes in supporting and sustaining shifts in pedagogical practices**

Meaningful changes in teacher discourses and practices around curriculum and assessment and planning were reported through both the survey and the interviews with practitioners. A very high number of survey respondents (85%) believed that their practices had changed a great deal or a fair amount as a result of their engagement in PD. When asked to assess the effectiveness of their recent PD, similarly high ratings were given for three areas: *improving children's learning outcomes* (87%), *increasing teachers' content knowledge* (85%) and *improving their services' teaching capability* (83%). Furthermore, a question asking respondents how far their service had progressed in a number of areas revealed that the top three rated areas of change concerned pedagogical practices: *improved the quality of the education practice of service* (86%), *changed the approach of the service to teaching and learning* (80%), and *increased the pedagogical/theoretical knowledge of staff in the service* (79%). Such findings indicate that MOE-funded professional development programmes are making progress in addressing the concerns of writers such as Cullen (1996), Meade (1990) and Anning, Cullen and Fleer (2009) regarding practitioners' understandings of the theoretical underpinnings of *Te Whāriki*.

However, while the above results might be expected given their strong links to PD contract priorities, lower ratings regarding the effectiveness of PD programmes in *understanding and celebrating diversity* (68%) and *encouraging bicultural understanding* (62%) are of concern, given the need for services to be effectively working with children and families/*whānau* from diverse backgrounds (Alton-Lee, 2003). Similarly, only 59% of respondents felt that they had become more sensitive to bicultural issues as a result of participating in PD and 56% felt that they had become more aware of, and able to work with people from diverse backgrounds. Survey data also revealed that services do not prioritise PD that focuses on bicultural practices or on diversity.

Interview respondents were asked about the effectiveness of MOE-funded PD programmes in supporting and strengthening bicultural practices. The overarching theme that emerged from these data is one of variability in terms of commitment from services to engage in PD on biculturalism; provider capability and the quality of programmes offered in this area; and resourcing. The interview data also indicates a lack of consensus about what responding to diversity entails. Whilst some interviewees interpreted diversity through a cultural lens others saw it as responding to the personal circumstances of every family and child. Gifted and talented children were never mentioned, and there was a gap in the conversation concerning children with special needs.

When asked how well their service's PD had assisted them in obtaining *evidence of enhanced*

*learning outcomes for children as related to Te Whariki* most respondents reported that their PD had assisted them *very well* (32%) or *quite well* (56%). When subsequently asked whether they had been introduced to useful approaches to assessing children's learning as part of their PD programme, more than half the respondents (56%) indicated that they had been introduced to useful approaches, while a further 36% felt they had to some degree.

From a given list survey respondents were asked to identify how they were able to recognise that their PD had been effective. Taking the top two ratings on a four point Likert scale the highest rated sources of evidence were *observable improvements in children's learning outcomes* (71%), *observations* (67%) and *parents/whanau feedback* (63%). Respondents rated several indicators poorly as sources of evidence of change in their practices: *evaluation form at the end of the PD programme* (10%), *feedback from facilitators* (16%), *achieving previously set indicators* (19%) and *setting goals to measure against* (19%). Interestingly, these latter indicators are similar to those identified in milestone reports as being used by providers to measure the effectiveness of their programmes: *completion of mid- and post-programme evaluations against the initial needs analysis; revisiting progress indicators or action plans regularly throughout the programme; facilitator observations of service's/teachers' practices; reflective discussions between facilitators and participants; use of rating scales to measure progress; and satisfaction surveys completed by the service/teachers.*

These results indicate a mismatch between sources of evidence valued by respondents and those used by providers to report on progress to the Ministry. The latter sources attend to changes in teacher practice rather than the impact of PD on children's learning as well as reflecting the reporting demands inherent in contract arrangements. In contrast, those sources of evidence valued by respondents may emerge over a time period beyond that of the actual PD programme, providing evidence of sustained change in teacher practices in line with Guskey's (2000) position that evaluations should not be limited to immediately following the conclusion of the PD programme.

## LIMITATIONS TO THE EVALUATION

As noted in the discussion of methodology above, there are recognised limitations in relying on self-reports of teachers' professional development experiences, and these are acknowledged here. The use of self-report methodology is, however, appropriate when gathering data about people's perceptions and feelings (Howard, 1994; Spector, 1994). Short-comings in its use can be offset to some extent by the inclusion of additional data sources to improve validity. The inclusion of interviews with providers, umbrella organisations and MOE officials, together with the analysis of milestone reports, was intended to enable triangulation with self-report data gathered through the survey and group interviews, in order to strengthen validity. The large sample of services surveyed, resulting in 23.7% of the country's ECE services (excluding *kahanga roa*) responding, also strengthens the validity of the results.

The second limitation noted is the timing of the evaluation in relation to the PD programmes. Firstly, the focus on PD completed within the 18 month period preceding the evaluation meant that there was no opportunity for the evaluators to directly observe programmes or to gather data on teachers' practices prior to the PD intervention. Secondly, whilst the evaluation had the benefit of gathering data at a later point than did the provider evaluations, the timing prevented close attention to the sustainability of changes in practices over time.

## CONCLUSION

The results of this evaluation highlight the complexity and diversity of the ECE sector in New Zealand and the challenge of providing effective PD programmes within a sector undergoing rapid change. The influence of other actions being implemented as part of the ECE Strategic Plan is also evident. The pressure to achieve qualified teacher targets, and a shortage of qualified relievers to call on to cover for staff on PD leave, has had the unintended effect of reducing qualified teachers' access to professional development.

In addition to the difficulties qualified teachers faced in accessing PD, two other issues relating to access are apparent: firstly, rural and isolated services find it more difficult to access professional development and face greater time and travel costs. Secondly, access to PD is uneven across service types with kindergartens and home-based services having the greatest difficulties. The evaluation was not able to gather detailed information about the ability of care-givers in home-based services to access PD but the literature suggests that their involvement in PD is highly problematic (Lidington, 2000; White, 2003). Given the rapid growth of home-based services in New Zealand it is important that this issue is addressed.

Whilst PD programmes are contributing to practitioners' effectiveness in a number of areas the evaluation highlights the need for PD programmes that will assist services to develop bicultural pedagogical and organisational practices and understandings within a sociocultural paradigm so as to deliver *Te Whariki* as a bicultural curriculum. A dual approach of integration of bicultural perspectives within programmes that have a wider focus (for example, on assessment) together with programmes that specifically focus on bicultural understandings *per se*, is required.

Similarly, a multi-pronged approach to strengthening programmes to support the effective teaching of children from diverse families is required. Expanding the use of, and making explicit, inclusive practices within PD programmes may help to increase the repertoires of teachers in this area. Such approaches are often able to be integrated within broader programme foci, particularly around curriculum, teacher interactions, and assessment. In addition, PD opportunities that address issues of diversity through a number of lenses (e.g., cultural, special education, family make-up) are required, given the evidence of increasing diversity within New Zealand early childhood services (Shuker and Cherrington, 2009).

## POSTSCRIPT

Ministry of Education-funded programmes as described in this evaluation were curtailed at the end of 2009, along with the cessation of the Centres of Innovation programme. MOE-funded PD programmes are expected to resume from July 2010 with a more targeted emphasis on specific communities and foci.

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**NOTE**

<sup>i</sup> Licensed, chartered early childhood services in New Zealand include kindergartens (predominately sessional, for children aged 3–4 years); playcentres (parent-led sessional services predominately for 2–4 year olds; home-based services (for children aged birth through 4 years); education and care (including full-day and sessional programmes for children aged from birth through 4 years, and including services with specific philosophies, e.g., Montessori, Maori Immersion, Pasifika [Pacific Island] language nests); and Te Kahanga Reo (whanau (family)-based services catering for children aged birth through five years which use and promote Maori language and cultural practices).

<sup>ii</sup> The Education Review Office conducts regular reviews of all schools and licensed early childhood education services in New Zealand.

<sup>iii</sup> Current policy in New Zealand ties funding levels in teacher-led services to the percentage of qualified and registered teachers working with children during each hour that the programme is offered. If a qualified, registered teacher cannot be replaced by a qualified, registered reliever then the centre's funding for that period will be reduced.