CHAPTER 8

Te Whāriki and assessment:
A case study of teacher change

Karen Ramsey, Wendy Lee and Margaret Carr

ABSTRACT

This chapter describes teacher change in assessment practice following the introduction of Te Whāriki. It focuses on one early childhood centre, and much of the story is told through the eyes of one teacher, Karen. It is structured around two opportunities that supported the teachers and built on the 1996 curriculum: a professional development programme and practitioner research projects. The story is analysed in terms of four major features of teacher professional learning and development experiences that have been shown to change teacher practice and improve student outcomes in schools, as identified by Timperley and colleagues in 2007: assessment practice; leadership; existing theories about the learner; and the professional learning community. In this story, consistent with the central metaphor in Te Whāriki and in this book, all four features are woven together.
Introduction

In 1993 the draft *Te Whāriki* framework signalled the beginning of a very different approach to early childhood education for Aotearoa New Zealand. Many teachers at that time were using an informal curriculum framework: an implicit or explicit array of PIES (physical, intellectual, emotional and social skills) to keep in mind without too much deliberate or purposeful teaching. The BWECCian approach taken by *Te Whāriki* (belonging, wellbeing, exploration, communication and contribution) was something of a surprise. *Te Whāriki* emphasises a view of learning as being about responsive and reciprocal relationships between people, places and things (Ministry of Education, 1996, p. 43), and a view of outcomes as “learning dispositions” and “working theories” (p. 44). It also set out some ground rules for a bicultural and socio-cultural approach to curriculum, one that emphasises whakamana, kotahitanga, whānau tangata and ngā hononga, and that aims to be empowering, holistic, ecological and interactive, framed around what has been called “individual(s)-acting-with-mediational-means” (Wertsch, 1991, p. 12).

A mandatory national early childhood curriculum, and the increased funding for early childhood that followed, suggested that attention would need to be paid to assessment practices. Together with the metaphor in *Te Whāriki* of curriculum implementation as a local ‘weaving’, and Bronfenbrenner’s ecological framework (also in *Te Whāriki*), this in turn suggested that teacher change would be a feature of early childhood education in the next decade. This chapter tells the story of teacher change in one centre, Roskill South Kindergarten. It is also a story of professional development and practitioner research that, in concert with *Te Whāriki*, supported that change.

Teacher change and professional development

Early stories of teacher change with a focus on assessment that followed the introduction of *Te Whāriki* have already been told. They include Keryn Davis’s story of the journeys of a number of teachers in childcare settings as they tried out new ways of doing assessment (Davis, 2002). She identified three central shifts in assessment practice:

- taking up new possibilities for thinking about what to give value to in assessments
- including multiple voices
- developing a new “assessment consciousness” (becoming more aware, for instance, of the power of both documented and undocumented assessments).

In 1998 one of the authors of this chapter (Margaret) and a group of teachers described five case studies of teachers in very different settings exploring assessment with *Te Whāriki* in mind (Carr, 1998b). This research identified some of the possibilities
of narrative modes of assessment, and was followed by a set of three videos (now DVDs) and a professional development programme (Carr, 1998a). The story related in this chapter is about a teacher and her colleagues in one kindergarten as they developed assessment practices that took on board the BWECCian array of outcomes and the assessment principles in Te Whāriki (Ministry of Education, 1996, p. 30). The chapter is written by the teacher (Karen), the director of the professional development programme that supported the teacher and her colleagues (Wendy), and a researcher (Margaret), who, with Wendy, was from 2003 to 2005 and 2007 to 2008 an associate director of two research projects with Karen and her co-teachers.

Kiri Gould, in a 1997 review of the literature on professional development and teacher change, pointed out that teacher change involves not only change to teaching behaviours and practice, but also to teachers’ attitudes and beliefs. She added:

It is often presumed that getting teachers to change their beliefs will lead to a commitment to change and specific changes in classroom practices. A commitment to change, however, is an additional factor. It is sometimes referred to in the literature as ‘ownership’ of change and has been identified as an important factor in achieving significant change ... For this to happen teachers must feel dissatisfaction with their existing practice, find the innovation plausible and intelligent and be convinced that they are gaining more than they are giving up. (Gould, 1997, p. 3)

Ten years later, Helen Timperley and colleagues prepared a Best Evidence Synthesis of teacher professional learning and development for the New Zealand Ministry of Education (Timperley, Wilson, Barrar, & Fung, 2007). They commented on the evidence relating to a number of issues relevant to teacher change. Four of these are also relevant to the early years (the fifth commented specifically on secondary school contexts):

(i) the multiple roles of assessment
(ii) the role of the leadership
(iii) teachers’ existing theories
(iv) professional learning communities.

They summarised these four features as follows (we have added the italics).

(i) Assessment

“Learning to understand and use assessment information was part of the professional learning experience in about half the core studies associated with substantive impact on student outcomes. Uses of assessment information included determining the next steps for teaching and learning, reviewing the effectiveness of teaching, and motivating the teachers to engage in professional learning. For assessment information to be used in this way, teachers needed to understand that assessment was about informing the teaching-learning relationship, not about labelling students.” (Timperley et al., 2007, p. 191)
(ii) Leadership

“We have identified four different roles that leaders may adopt: developing a vision of how teaching might impact on student outcomes, managing the professional learning environment, promoting a culture of learning within the school, and developing the leadership of others in relation to curriculum or pedagogy. In no core study did leaders take on all four roles. All, however, were adopted by leaders in various ways that led to positive outcomes for students.” (p. 196).

(iii) Teachers’ existing theories

“[W]e have noted that the most effective theories [teachers’ theories of practice] are integrated around the notion of responsiveness to students” (p. 201). [We include responsiveness to families as well.]

(iv) Professional learning communities

“Communities that promoted professional learning in ways that impacted positively on student learning had a set of definable qualities. These included a focus on opportunities to process new understandings and their implications for teaching, the introduction of new perspectives and challenging of problematic beliefs, and an unrelenting focus on the impact of teaching on student learning.” (p. 205)

These are the four themes to which we return in this chapter. We begin, however, by describing the context for Karen’s story of teacher change, both in terms of the programme in which she participated and the focus on assessment within that programme.

The Education Leadership Project

Roskhill South Kindergarten, under Karen’s leadership, began their journey with a professional development provider in 2000 when they signed up with the Educational Leadership Project (ELP) directed by Wendy Lee. In Aotearoa New Zealand, professional development funded by the Ministry of Education accompanied the introduction of Te Whāriki, and this was followed by evaluations of these initiatives (Foote, Irvine, & Turnbull, 1996; Gaffney & Smith, 1997). ELP was one of the professional development providers that received funding from the Ministry of Education to support the implementation of Te Whāriki. Involving centres and teachers in Auckland, Waikato and the Bay of Plenty, the ELP programme had several main features.

For a start, the aim was—and still is—to develop professional and pedagogical leadership within the teachers themselves (Lee, 2008). This means that, in the later phases of the ELP, teachers whose professional development journeys reflect extensive teacher change become part-time facilitators, working with teachers who are just beginning to contemplate changes that might strengthen their practice. Second, teachers informally share ideas and formally present aspects of their practice to each other at cluster meetings. Third, teachers are given opportunities to visit other centres;
and fourth, readings and references to other readings are provided for the teachers, reflecting the expectations of the ELP that teachers should be prepared to make connections between theory and practice, because effective professional development requires more than the acquisition of off-the-shelf solutions.

In recent years ELP programmes have included a research component. Teachers choose a research question they are keen to pursue, and this component, often with the assistance of an outside researcher, adds (in the words of Timperley et al., 2007) a focus on “opportunities to process new understandings” and their implications for teaching, and “the introduction of new perspectives and challenging of problematic beliefs”. The ELP experience of professional development in early childhood education recognises that professional development is often a complex, evolving journey. It also supports, and views as powerful, the notion of ‘purposeful practice’, not only for children but for adults as well:

Purposeful practice is about striving for what is just out of reach and not quite making it; it is about grappling with tasks beyond current limitations and falling short again and again. Excellence is about stepping outside the comfort zone, training with a spirit of endeavor, and accepting the inevitability of trials and tribulations. Progress is built, in effect, upon the foundations of necessary failure. That is the essential paradox of expert performance. (Syed, 2011, p. 85)

Early childhood professional development programmes have been severely diminished by budget cuts in recent years. Universal access to professional development programmes is no longer a part of New Zealand’s early childhood landscape, and new professional development programmes are primarily targeted at centres in low-participating and low-income communities. Some national early childhood professional development remains for a significantly reduced number of participants, focused on pedagogical leadership and working with children under the age of 2 years. There is now a greater urgency for professional learning programmes that build sustainability of reflection, dialogue and experimentation in a range of ways. There are a variety of potential focuses for such professional learning, but, for us, the key one has been the issue of assessment of children’s learning in early childhood settings.

**The focus on assessment practices within the ELP**

In 2000 the ELP began to support and develop the narrative modes of assessment that had been introduced in 1998. Together with teachers like Karen and her team, ELP projects developed a range of formats and highlighted a range of purposes. They also won a contract with the Ministry to implement *Kei Tua o te Pae*, a professional development resource of 20 books that provided exemplars of assessment for learning in early childhood (Carr, Lee, Jones, & Ministry of Education, 2004, 2007, 2009). The
Roskill South teaching team contributed a number of assessments to these books. By 2009 narrative assessments had become a secure part of the early childhood assessment practice repertoire in New Zealand (Gunn & de Vocht van Alphen, 2011; Hatherly & Sands, 2002). Writing about the theoretical positioning and outcomes in three different curriculum documents for the early years—the Early Years Learning Framework (EYLF) (Australian Government Department of Education, Employment and Workplace Relations, 2009) from Australia; the Early Years Foundation Stage (EYFS) (Department for Children, Schools and Families, 2008) from England and Wales; and Te Whāriki—Helen Hedges and Joy Cullen commented:

In terms of outcomes, the EYFS is the most explicit about knowledge outcomes, including these among others: personal, social and emotional development; communication, language and literacy; problem solving, reasoning and numeracy; knowledge and understanding of the world; physical development; and creative development. In contrast, Te Whāriki specifies the concepts of dispositions and working theories as main outcomes. These incorporate knowledge, skill and attitudinal components. In other writing, Carr (2005) identifies the strands of Te Whāriki as its outcomes for children; namely, well-being, belonging, contribution, communication and exploration. In similar vein, the EYLF details five learning outcomes related to identity, contribution, well-being, confident learners and effective communicators. These notions challenge traditional conceptions of outcomes as domain-based. Instead, reflective of sociocultural theories, outcomes are more holistic than subject domains and reflect a more synergistic view of learning.

Nevertheless, while the EYFS comes closest to providing specific and measurable cognitive and behavioural outcomes and provides a 13-scale summative profile to be assessed prior to school entry, none of these documents indicate how children might be assessed as achieving the wider participatory goals or aspirations of each curriculum. In keeping with sociocultural approaches, a narrative form of assessment has since evolved in NZ, that of ‘learning stories’ (Carr, 2001a; MOE, 2004, 2007, 2009). Australian teachers have also found this approach appropriate (e.g. Nyland & Ferris 2009); indeed the approach has found international recognition (e.g. Karlsdóttir & Gararsdóttir, 2010). (Hedges & Cullen, 2012, pp. 928–929)

The value of Learning Stories for the assessment of learning in mathematics has been described from Australian contexts (Perry, Dockett, & Harley, 2007), and in Learning Stories: Constructing Learner Identities in Early Education (Carr & Lee, 2012) there are Learning Stories from Australia, England and Germany. Karen and her colleagues from Roskill South also contributed to the examples of children’s learning journeys, over time, in the 2012 book. We turn now to Karen’s story of coming to this level of engagement with assessment in early childhood education.
Karen’s story

Roskill South Kindergarten’s community is set in a low-income suburb of Auckland. The families belong to a wide range of cultural communities, and at any one time they represent about 17 different home languages. For many of the families, therefore, English is an additional language. Many of the families have come to New Zealand for the opportunity of a good education for their children but they keep close links with family outside New Zealand, keen to send news of their children’s educational experiences back to family at home. Roskill South is a ‘sessional’ (i.e., half-day) kindergarten, with 45 children in a daily morning programme and 45 children in the 3-day afternoon programme: up to 90 families in all.

Karen’s journey of professional development with ELP began more than 12 years ago, and the journey is continuing. When Roskill South Kindergarten was first enrolled in ELP, Karen began to keep a log of their progress towards a manageable and meaningful assessment framework. What follows is an abridged version of the written component of this log, annotated at the side using the four features of teacher change outlined by Timperley and colleagues and listed above. It begins with two entries from 1998 and 1999, written in hindsight.

| Early assessment practices | July 1998. As a new teaching team, we decided it was time to review the assessment system and develop a system that was workable for us. The assessment system that was developed at the time involved writing incidental observations on what the children were learning through play. These short observations were recorded on post-it notes. Children had their own cardboard folder. Inside the folders were a booklet and any photos taken of the child while at kindergarten. At planning meetings, we would discuss the child/children involved and decide if we would use the individual observations as a basis for our group planning. Each observation was linked to a Te Whāriki strand, the post-it was stuck into the booklet and the strand that we thought the child had achieved was highlighted. Children’s folders were kept in the office in a locked filing cabinet. Parents and children had access to them but had to ask a teacher first. |
| The establishment of a professional learning community | Term 4 1999. When we were writing the incidental observations, it was becoming apparent that we wanted to record more detail about the process of the child’s learning. We had heard the term ‘Learning Stories’ when we had gone to various meetings but didn’t know anything about it. We thought this might be the answer to our questions. Maryanne from Hillsborough Kindergarten told us that they had been using learning stories and had found it very beneficial. They had been working with Wendy Lee and recommended the courses she offered. We applied to be part of the ‘Education Leadership Project 2000’.
|
| Teachers' theories of responsiveness | Term 1 2000 | Successful in gaining a place on the project, a great start to the millenium! We mapped where we were at and where we wanted to go! Then came the development of our project focus. The focus had 2 parts. The first was to consult with parents, families and community to find out what they value for children's learning so we could then use this as a base for assessment. The second part was to investigate current theories of assessment and develop a workable system for our kindergarten. |
| Assessment that informs the teacher-learner relationship | Term 2 2000 | A change in team dynamics as one of our teachers resigned. We had a relieving teacher. We attend the Learning Stories workshops. A combination of staff illness, a string of relievers and a busy kindergarten saw our project work put on the back burner! However, we informed parents and families about the new system we were trying, we created a display to share this information. |
| Leadership consolidating curriculum | Term 3 2000 | We were back on task and dedicated to trying the learning stories framework in our centre. We decided we would make a concentrated effort to write learning stories and lots of them. We needed practice in this skill and as the weeks went by we could see our styles of writing the children's learning stories change the more experience we gained. We used some photos to record the children's learning process as well. |
| A professional learning community processing new understanding | We were excited about the progress we were making and the positive feedback we were getting from parents when we shared their children's learning stories with them. We were finding learning stories were allowing us to know the child at a much deeper level. We could see that this assessment framework was easy for all our families to understand, especially with the use of photos to illustrate the child's learning process. (Hence the increase in the chemist account.) |
| | We reviewed the layout of the children's files and redesigned the front introduction pages to include information about the new system (learning stories) we were using (this included forms asking parent's permission to have their child's file accessible in the centre). During a centre visit Ann helped us to formulate a draft version of this which we then asked parents to read and give us their feedback on. We asked the questions: Was it easy to understand? Would they read it? Some parents gave written comments. [Authors' comment: These are included in the log.] Parent support was encouraging and we went into Term 4 full steam ahead. |
| | Term 4 2000 | We had a new reliever join us for the term. During the year there had been many changes and we decided to spend this term consolidating what we had learnt, continue to write stories and just enjoy where we were at in our journey. |
| | I attended a workshop and gave a presentation on our project work for the year. This was a new challenge for me. As a team we were buzzing from the feedback we got from parents each time we shared their child's learning story with them, we had made great progress on our journey and found it rewarding to share with fellow teachers. [Authors' comment: A copy of this presentation is included in the log.] The workshop also gave the opportunity to listen to other people's journeys. |
A couple of days after the workshop I was watching two children reading their files to each other. They were having to sit in the doorway as the files were stored in a bookcase just inside the door. Did this show the children we value their stories? As a team we thought it didn’t and decided to create a learning stories corner! We ended the year with a family night [Authors’ addition: log includes photographs of children sharing their files with their parents]. What a great way to end the year!

**Term 1 2001** We started the year with a permanent teaching team. We spent Term 1 consolidating our developments of last year – we were back into the full swing of recording children’s learning. We were successful in gaining a position on Year 2 of the Educational Leadership Project. We were excited about this opportunity and looked forward to our continuing journey.

Last year we had made greater use of photographs in documenting children’s learning. This meant the children’s learning stories had meaning for them and they could re-visit and share their experiences with their friends – very motivating for oral, visual and written literacy. Photographs were also extremely powerful for our families and especially those with English as an additional language. During Term 4, I regularly talked to the committee about our need for a digital camera. They came on board and it was decided that the profit from our annual Monster Garage Sale would be targeted for a camera. The Garage Sale was a huge success. We raised $1500! Our dream was coming true. A digital camera meant learning stories could be written up quicker rather having to wait for a film to be processed.

**Term 2 2001** We were finding our sessions becoming busier and busier because the children were now directing their learning and we were putting more emphasis on interactions with children as a result of the closer relationships we were developing through Learning Stories. Once we focused on children’s strengths and interests we found we recognised the importance of listening to children (genuinely) and having meaningful conversations with them (child’s voice). As a team we talked about the need for a more formal parent/whānau help system and so our Parent/Whānau involvement system was born. We kicked it off at the start of Term 2. A visual display of parents helping around the kindergarten and reasons why we were asking for help was put together. Basically the more support we got from parents and families meant more learning stories for their children! It sounded like bribery but parents valued our assessment system and so were keen to help during session. Two weeks into Term 2 we said goodbye to Michelle, who was leaving on her big overseas adventure! And the hunt was on again for another team member.

Auckland Kindergarten Association was developing a pilot programme for computers in kindergartens. There were 6 computers for allocation and we were desperate for one! We had raised enough money for a digital camera but had found out they weren’t compatible with our PCs at home. Our kindergarten couldn’t afford to buy a computer and camera as well, so we applied to be part of the pilot programme and kept our fingers crossed !!!!! Soon the good news that we had been hoping for came….. We were successful in being selected for the computer pilot programme. This was a huge boost for our team. We had worked hard developing our assessment
<table>
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<tr>
<th>Challenging current practice</th>
<th>system during the past year and were passionate about documenting our children’s learning. Having a computer and digital camera meant we could take our assessment system to a higher level!</th>
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<tbody>
<tr>
<td>Widening the professional learning community</td>
<td>Term 2 also saw a change in our planning system. We were interested in the ‘Longterm project’ approach and had begun to investigate this model. Our first project was from an interest the children had in Aliens—this project ran for 2 terms. Not long into the start of the project we were beginning to notice many of our children for whom English is an additional language were coming on board and contributing to group discussions and becoming involved.</td>
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<td>The wider professional learning community introduces new perspectives</td>
<td>We began inviting parents to contribute to their child’s learning in the form of ‘Parent Voice’. The response was encouraging and a great way to share information between home and kindergarten. This empowered parents to be involved in their children’s learning. During Term 2 we had attended a course about the Quality Journey. We decided to use this document to review our new parent/whanau system. We drew up a survey and asked parents to fill it out at the end of sessions. The feedback was interesting and we were able to make changes to improve the system.</td>
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<td>Responding to challenge: a theory of responsiveness</td>
<td>Term 3 2001 A permanent appointment was made and Jane joined our teaching team in the last 2 weeks of Term 3. Finally a full teaching team with no babies or overseas trips in sight! As a development from the feedback we received about parents helping in Term 2 we began to develop a parent help information book. The aim of the book was to give parents practical ideas about how they could help the children at kindergarten.</td>
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<td>Becoming a hub for a professional learning community</td>
<td>Term 4 2001 From a parent’s concern about their child’s transition to school we began a case study and trialled a new procedure. I went on a school visit with George and his mum. This was an invaluable experience; we were able to video George in his classroom, his teacher, things in his classroom, the playground. The next day at kindergarten George was able to re-visit this experience by watching the video; he watched it many times and shared his new school with his friends. A book was then made on George’s school visit, which he could take home and re-visit during the Christmas holidays. We also made a copy for the centre so other children could benefit. It is our vision that this process will become part of our centre’s Transition to School Policy. How? I’m not quite sure yet! [Authors’ addition: By this stage in their journey, several teachers from other centres and other regions are coming to visit to see the assessment documentation.]</td>
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<tr>
<td>An unrelenting focus on the impact of teaching on student learning</td>
<td>Well What a Year!</td>
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<tr>
<td>Where to for 2002?</td>
<td>- Develop our long-term project documentation further. Involve families and the community in the projects.</td>
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<td></td>
<td>- Encourage children to re-visit and self evaluate planning boards.</td>
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<td></td>
<td>- Weekly reflection on learning stories board and sharing of children’ stories at staff meetings. This will ensure children are ‘not missed’.</td>
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• To be more constant in recording children's learning and writing up children's Learning Stories.
• Develop children's self-reflection and self-evaluation skills.
• And who knows what else...?

**Term 1 2002** We begin Term 1 with notification of our ERO visit on Wednesday 20th February. We looked forward to the review and receiving feedback on the assessment and planning systems we had woven into our curriculum. The day of the review came and we were a 'little nervous'. But by end of the visit we wrapped up with a feedback session, their comments were positive and encouraging. The day the draft ERO report arrived arrived I read it out from cover to cover during our lunchtime. Comments like 'Children are highly motivated, self-directed learners' and 'The relationship between teachers and parents is an outstanding feature of the kindergarten' are the essence of our teaching philosophy, ERO had clearly seen this in our daily practice. We were excited. [Authors' addition: The ERO Report included the following summary of the centre's assessment practice: Ongoing individual assessment underpins the curriculum. The assessment process is a result of collaboration between the teachers, the children and parents. On a daily basis teachers record children's experiences in narratives which identify learning dispositions that link to the strands of *Te Whāriki*. An analysis in the form of a short term review and identification of "what next", informs future programme decisions. Learning stories are illustrated with photographs and form the basis of the individual assessment files. Children and parents are encouraged to access and contribute to the files with their own stories, comments and reflections. Teachers have a highly effective system to ensure that learning stories for each child are maintained and that individual goals and interests are tracked. These very well developed systems result in high quality, formative assessment material that clearly demonstrates individual progress and the effectiveness of teaching strategies.]

**Term 3 2002** We had a vision to develop the use of the video camera – children would have written learning stories in their files and for some stories they would also have the footage on their own videotape. In June, I was writing up Ben and Daniel's learning story about a diesel train they had made out of boxes. I watched the video footage to download the photos for the story but couldn't decide which frames to choose as it all seemed so important. It was becoming clear to me that the time had come to begin our video documentation. A very exciting time, especially when we hadn’t planned on this development until the following year. A newsletter was written to tell the parents about our exciting new development and to explain that it will be a slow process; children will get their own tape as learning stories evolve.

The first time we introduced the children to their stories being on tapes, it was an exciting day. Once the video was playing and children saw themselves they automatically went and got their files and began to look through them as they watched the footage. The videos sparked children’s conversation as they revisited and talked about the learning experience. I thought this was amazing; children had made very clear links with their files to their videotapes.
Parent feedback was encouraging. Ben’s mum made a copy of Ben’s tape because she was scared he was going to wear it out if he watched it so often. Diane, Glen’s mum, made the comment ‘Thanks Karen we had to watch it 10 times last night!’ I received some feedback from Fay, Ryan’s mum. When I asked what she thought about Ryan’s tape she said his grandmother had it. She had had the tape for 3 days…… After watching the tape she now thinks Ryan is clever! Wow, I hadn’t realised how powerfully this new innovation was going to impact our families and how they view children. I knew we were on the right track.

We edit the video footage in a software programme called iMovie. This enables us to bring in early literacy by adding titles and written commentary to the video footage. When children take home their videotape to share with their families it is extending their learning, involving their family and developing a community of learners. Someone at home will read the words on the footage, extending literacy into the home. As well as children’s individual videos, we also began a video library of trips and experiences. Children and families are able to take home and re-visit these experiences, once again extending learning and involving families in their children’s interests. [Authors’ addition: By this time Karen is being asked to facilitate a number of workshops for other teachers on her kindergarten’s assessment journey.]

Plans were under way for a Parent/Whanau evening on Learning Stories. We also extended the invitation to local schools. Teachers from four schools attended, we were so pleased with the response. We read some learning stories, making links to Te Whāriki. The evening was a great success; it was wonderful to share our passion for documenting children’s learning with families and primary school teachers.

Karen’s log to this point traces the work at Roskill South up until the end of 2002. Since 2002 this work has taken on a new dimension as opportunities for funded teacher research have been taken up by Karen and her teaching team. These opportunities have been a logical extension of the teaching and learning journey experienced by Karen and her colleagues along the four dimensions of shifts in teaching-and-learning practice that were strengthened during the early years of ELP and that are evident in her log book. In the final part of this chapter we describe the move to teacher development through engagement in teacher research by reflecting on our collaboration in two major teacher research projects.

**Teacher change and teacher research**

Two practitioner research programmes were available in New Zealand after the publication of *Te Whāriki*, both funded by the Ministry of Education: the Centres of Innovation (COI) programme, and the Teaching and Learning Research Initiative (TLRI, administered by the New Zealand Council for Educational Research). These
programmes recognise the value of practitioner inquiry or action research projects, a value articulated by Greenwood and Levin (2008):

Action research aims to solve pertinent problems in a given context through democratic inquiry in which professional researchers collaborate with local stakeholders to seek and enact solutions to problems of major importance to the stake-holders. We refer to this as cogenerative inquiry ... The professional researcher often brings knowledge of other relevant cases and of relevant research processes. The insiders have extensive and long-term knowledge of the problems at hand and the contexts in which they occur, as well as knowledge about how and from whom to get information. (p. 72)

Greenwood and Levin’s argument supports many of the points made by Timperley and her colleagues in 2007, used in the previous section of this chapter as an analytical framework for Karen’s log book entries. The new opportunities offered by the two research programmes also enhanced the teachers’ abilities to use assessment information to inform the teaching-learning relationship, enact a culture of responsiveness to learners, develop the leadership of others in relation to curriculum and pedagogy, focus on opportunities to process new understanding and its implications for teaching, introduce new perspectives for discussion, and challenge problematic beliefs. A further value of action research in this context is that it allows for the contribution of the teachers’ knowledge of the wider context, the families and the local communities to the research process.

**Centre of Innovation, 2003–2006**

In 2002 the Roskill South teachers applied for a 3-year Centre of Innovation (COI) project and invited Margaret and Wendy to be their research associates. Their bid was successful for a project entitled Strengthening Learning and Teaching Using ICT (Ramsey, Breen, Sturm, Lee, & Carr, 2005, 2006b). The project was designed to strengthen children’s agency and competence with information and communication technologies and to explore the ways in which these technologies could deepen and broaden assessment for learning (Lee, Hatherly, & Ramsey, 2003). One of the requirements of COI projects was that the teachers disseminate their findings, and Roskill South held visitors’ days, ran workshops and prepared professional development resources for visitors and the workshops.

During the COI project we began to see the early childhood centre as a network or system in which teaching and learning are distributed across a range of artefacts (including the ICT tools, a curriculum document and assessment formats) and routines, greater sharing of responsibility for teaching and learning with the children and the families (a consequence of their beliefs about the image of a learner and the process of learning), and family participation. We borrowed the unit of analysis from activity
theory (i.e., the centre itself as an activity system) to explain how this network of elements, individually and in concert, worked to enhance the agency of the children and the participation of the families (Ramsey, Breen, Sturm, Lee, & Carr, 2007). The executive summary of the final report (Ramsey, Breen, Sturm, Lee, & Carr, 2006a, p. i) noted:

The integration at Roskill South Kindergarten of ICT and Te Whāriki with Learning Stories has been a powerful combination for enhancing learning within all five strands of Te Whāriki. The combination developed a culture in which each of the children was recognised as a competent child by the teachers, by the children themselves, and by the families. Children could use the digital camera to prepare their own Learning Stories, and they could explain their learning to others in slide shows and powerpoints. Te Whāriki’s vision, principles, and strands provided the framework for the aims of the learning and teaching. Te Whāriki was foregrounded, with ICT as a mediating tool. At the same time, children families and teachers were developing considerable ICT knowledge and skill, inside meaningful enterprises.

The computer, the camera and the other ICT resources (e.g., photocopier, laminator, printer, fax machine) in the kindergarten made this ICT development possible. Making it probable depended entirely on “the pedagogical approach of the adults, and the teaching strategies that are put in place accordingly” (Visser, 2000 p. 11). The teachers were determined that the computer was just another tool for learning, and slotted the digital technology into their view of learning as belonging, wellbeing, exploration, communication and contribution. Central to this integration was their view of assessment as “noticing, recognising and responding”, later extended to “noticing, recognising, responding, recording and revisiting” (Carr et al., 2004, Book 1; Carr & Lee, 2012; Cowie, 2000). Assistance with the digital technology was also provided by the ELP facilitators.

In 2009 the Ministry of Education halted funding for the COI programme, despite its being a flagship for practitioner research that had reached out to many early childhood teachers in New Zealand which had been followed with interest internationally. The editor of the five volumes of papers from the 20 COIs, Anne Meade, wrote in the final volume (Meade, 2010 p. 4):

The collective impact of the COI programme has exceeded all expectations. In a valedictory letter, Peter Moss, professor of Early Childhood Provision at the University of London, commended the ‘hard work, vision and commitment’ of COI who have contributed ‘something very precious in the field [internationally] in the practice of innovation … and played a critical role in enabling services to flourish and grow even better’. … Through their talks and workshops, the teacher-researchers have stimulated—indeed, inspired—hundreds, possible thousands, of teachers to:

- engage in critical thinking based on research findings that challenged their previously held assumptions about teaching and learning
• improve their planning and assessment for children’s learning
• be far more creative in using ICT to communicate how and why early childhood education is beneficial for children’s learning and development.

At the end of the 3 years, when asked what being involved in the COI project meant to her, Karen said,

I remember the day we received the phone call from Anne Meade notifying us that we had been selected as a COI. It was a dream come true. Being selected as a centre of innovation was going to give us support to achieve our vision for integrating ICT into our teaching and learning practice. This was a journey we had already begun, but we could see that the COI project was going to have huge benefits for our children, families/whānau, and us the teaching team. [As a consequence of this COI experience], my reflective practice has deepened and I have absolutely loved having time and opportunities to discuss, ponder and wonder about children’s thinking and learning, with our teaching team and research associates. I have truly embedded the framework [of] noticing, recognising and responding into my teaching and learning practice and have a greater understanding of how this looks in practice.

**Participation in a Teaching and Learning Research Initiative project**

In 2007 the Roskill South team took up another opportunity to participate in a practitioner research project, this time with eight other centres. The team was invited to join a TLRI project, led by Margaret and Wendy, exploring the ways in which children could articulate their learning, within the particular context of revisiting documentation. Research at the University of Otago on mothers reminiscing with very young children (Reese & Newcombe, 2007) and research by Katherine Nelson (1996, 1997), and by Robyn Fivush and Catherine Hayden, had emphasised the contribution of revisiting events and event knowledge to social intent and to making meaning of storylines in young people’s lives:

Children have individual episodic memories from infancy, but it is only in the light of social sharing that both the enduring form of narrative organization, and the perceived value to self and others become apparent. (Nelson, 1997, p. 111)

As narrative skills develop, so do skills for representing events in more elaborate, coherent and evaluative forms. Narrating the past is a critical part of representing the past. It is through narrating the personal past that we come to understand and represent the events of our lives in ever more meaningful ways. (Fivush & Hayden, 1997, p. 195)

This project was also built on five principles for improving formative assessment in schools, which had been outlined by Black and William (1998), key commentators on assessment for learning, in a research summary for teachers. Two of these principles are: *dialogue* between learners and teachers, in which learners talk about their
understanding in their own ways; and learners understanding the main purposes of their learning (Black & Wiliam, 1998 pp. 10, 11; see also Black, Harrison, Lee, Marshall, & Wiliam, 2003). We argue that these ideas are just as relevant for young children in early childhood centres.

We described this as the Learning Wisdom project, introduced by Sternberg’s comment that:

When schools teach for wisdom, they teach students that it is important not just what you know, but how you use what you know—whether you use it for good ends or bad. (Sternberg, 2003, p. 7)

The teachers met regularly to share experiences and ideas, and the findings formed a substantial part of a subsequent book (Carr & Lee, 2012). A Learning Story by Karen in Chapter 4 of the book (p. 82) illustrates some of the increased complexity in modes of documentation at the early childhood centre and the opportunities they provided for children to revisit their learning. A Temple Design Story from Devya’s portfolio illustrated his referring to the pictures from a website to inform his block-building. His portfolio also included a DVD of his work, and Learning Stories were prepared as wall displays and PowerPoints for groups of children to revisit and plan together. Included here [in chapter 6] is another Devya story, the Mandir, which describes Devya explaining and sharing ideas with other children as they watch a DVD of a temple in England, and Devya then referencing the images on the screen to make more temple drawings. (Carr & Lee, 2012, p. 114)

Another Learning Story by Karen (Carr & Lee, 2012, pp. 53–54) describes Thenusan taking on the role of an illustrator, author and, finally, publisher of a book. He dictated a story to accompany a series of drawings and Karen wrote it down. He laminated the pages then used the kindergarten’s book binder to turn it into a book. Finally, he read the story to the entire kindergarten group at the end of the day.

Both of these practitioner research projects enabled the team at Roskill South to deepen their understanding of ways to implement the empowerment principle in Te Whāriki, distributing the leadership across the teachers, the materials, and the learners themselves. Thus, three key aspects of professional development—assessment, leadership, and teachers’ theories—were strengthened and re-shaped during these projects, while the fourth aspect, professional learning communities, was broadened to include more specifically a research community at a university.

**Conclusion**

This chapter has recounted the story of one teacher’s journey in formative assessment since the publication of Te Whāriki. It is a story of teacher change, as Karen and her teaching team explored the possibilities of the new curriculum. It is also a weaving
together of four features of teacher professional learning and development: assessment practices that inform the teaching–learning relationship, supportive leadership, a questioning of existing theories of teaching and learning, and a broadening and strengthening of engagement with professional development communities, both inside the kindergarten (seeking advice from families and engaging in dialogue about learning with the children, for instance) and outside it. The key threads of the weaving were the changes in assessment practices as the teachers, with the children and the families, explored the ways their documentation could highlight valued learning and give them the information they needed to plan and review the next steps for teaching and learning. The Centre of Innovation project and participation in the Education Leadership Project enabled Karen to develop, in particular, the leadership of others in relation to curriculum and pedagogy.

As we look ahead, we can do no better than quote the final paragraph in a section entitled ‘Bringing it all together’ (Timperley et al., 2007, p. 225) in the Best Evidence Synthesis that provided the structure for this chapter:

A key finding of this synthesis has been that teachers need to have time and opportunity to engage with ideas and integrate those ideas into a coherent theory of practice. Changing teaching practice in ways that have a significant impact on student outcomes is not easy. Policy and organisational contexts that continually shift priorities to the ‘next big thing’, with little understanding/evaluation of how current practice is impacting on desired outcomes for students, undermine the sustainability of changes already under way. Innovation needs to be carefully balanced with consolidation if professional learning experiences are to impact positively on student outcomes.

We have found these words to be appropriate for early childhood services as well as for schools. They are especially true 5 years on from when they were written, and should provide a touchstone for the sustainability of teacher change in years to come.

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**References**


Chapter 8: Te Whāriki and assessment: A case study of teacher change


