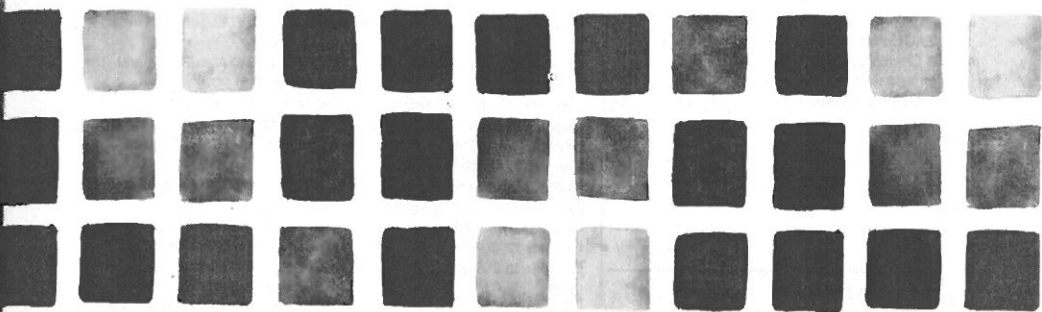The SAGE Handbook of
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Contents

Documentation in Early Childhood Research: Practice and Research Informing each Other

Margaret Carr, Bronwen Cowie and Linda Mitchell

INTRODUCTION

A Definition of Documentation

The discussion of documentation in the early years owes much to the writing on teaching and learning from Carlina Rinaldi and Reggio Emilia about the role of documentation and the theory of 'the hundred languages'. Referring back to a volume entitled *Making Learning Visible* (Project Zero and Reggio Children, 2001), produced as a collaboration between Project Zero (at Harvard University) and Reggio Children (at Reggio Emilia), Rinaldi writes about the shift in meaning of the concept of 'documentation'. She advocates for the role of documentation in ongoing mutual engagement, as a possibility for reflection:

> The concept of documentation as a collection of documents used for demonstrating the truth of a fact or confirming a thesis is historically correlated to the birth and evolution of scientific thought and a conceptualisation of knowledge as an objective and demonstrable entity. It is thus tied to a certain historical period and to profound reasons of a cultural, social and political nature that I will not examine here. Rather, I find it interesting to underscore how the concept of documentation, which has only recently moved into the scholastic environment, and more specifically into the pedagogical-didactic sphere, has undergone substantial modifications that partially alter its definition. In this context, documentation is interpreted and used for its value as a tool for recalling; that is, as a possibility for reflection. Rinaldi (2006: 62)

Mara Krechevsky and colleagues, writing from Harvard's Project Zero, define documentation as 'the practice of observing, recording, interpreting, and sharing through a variety of media the processes and products of learning in order to deepen learning' (Krechevsky et al., 2010: 65).

Similarly, in this chapter, documentation is defined as material communication tools appropriated or developed by teachers/practitioners or researchers for the purpose of recalling, reflecting on, re-thinking and re-shaping learning, teaching, knowledge and understanding. Curriculum documents only

appear as background. The examples come from New Zealand early years contexts, which include a number of features that are especially relevant to this topic: (i) an early childhood curriculum, Te Whāriki, that includes an explicitly stated socio-cultural and ecological stance on teaching and learning, (ii) two curriculum documents (early childhood and school) in which there is a cross-sector alignment of early childhood curriculum strands with school key competences, (iii) teacher freedom, in both sectors, to create their own forms of documentation, (iv) an established repertoire of narrative assessments in the early childhood sector, (v) an early years sector that includes te reo Māori (Māori language) immersion early childhood centres (ngā kōhanga reo) and schools (kura kaupapa Māori), and (vi) a number of opportunities for funding and publishing collaborative practitioner-researcher projects. We follow New Zealand practice to refer to practitioners in both sectors as teachers.

Purpose

The definition of documentation assumes a context and a purpose. In 2014 a paper in *Educational Researcher* discussed new initiatives in the Institute of Education Sciences (the IES) within the US Department of Education that emphasise 'relevance to practice' as a criterion for rigorous research. New programmes at the IES include researcher-practitioner partnerships where the problems are 'relevant to education practice and policy' and stakeholders deem them to be important. The paper questions 'scientific' research strategies that have prescribed and relied on random assignment studies of programme effects, and argues that 'rigor in studies that aim to draw causal inferences about policies, programmes, and practices requires in-depth qualitative research' (Gutierrez and Penuel, 2014: 19). The authors add:

> Studying the 'social life of interventions' moves us away from imagining interventions as fixed passages

of strategies with readily measurable outcomes and toward more open-ended social or socially embedded experiments that involve ongoing mutual engagement. (Gutierrez and Penuel, 2014: 20)

They look for 'new' approaches and tools to inform research that is designed to be directly relevant to practice and policy, and that uses direct observations of practice to 'generate insights into what works, when, why and for whom'. And they ask: 'How can practice and research inform one another?' This chapter explores and exemplifies the opportunities that documentation, in various ways, can assist with this quest.

Plan

There are four parts to this chapter. In the first section, we describe *teachers as researchers* who add a research component to their everyday work of using and creating documentation during teaching and formative assessment practice. Research projects are described in which teachers take the lead to develop the research questions and the direction of the research. The purpose of the documentation is to assist in the construction of learner identities and learning journeys, and to include others in the local community in discussions about learning. The audience is primarily the children, the teachers, the families and interested parties in the local community.

In the second section, we explore the different ways in which documentation can also become data in *collaborative teacher-researcher projects*. These projects may also construct documents to assist in the development of new knowledge and theoretical frameworks that will travel beyond the early childhood centre or the school and their immediate communities. In this case, documentation assists in connecting two communities of practice: teachers and external researchers. The audience includes the research community, policy-makers and the wider national and international education community.

The third section describes some research where documentation that is generated by teachers crosses the boundary from an early childhood centre to a school – and, in the New Zealand case, crosses from one curriculum to another. It does some unique learning journey and identity work. Etienne Wenger (1998) describes the significance for 'what it means to be a person' of this boundary-crossing, and this section explains how documentation can play a central role in this shift from one community to another:

> (W)hen a child moves from a family to a classroom, when an immigrant moves from one culture to another, or when an employee moves from the ranks to a management position, learning involves more than appropriating new pieces of information. Learners must often deal with conflicting forms of individuality and competence as defined in different communities. (Wenger, 1998: 160)

The final section summarises the story of the chapter and reflects back on the previous discussions to consider some particular conditions that enhance the ability of documentation to do its educational work. We will suggest that in order to be effective at crossing boundaries of time and place, the documentation must invite and/or construct re-contextualising in some way.

TEACHERS AS RESEARCHERS: USING DOCUMENTATION TO ASSIST IN THE CONSTRUCTION OF LEARNING JOURNEYS AND LEARNER IDENTITIES

In a number of early childhood (0–8 years) educational research projects in New Zealand, the teachers' everyday documentation forms the backbone of the data. In 2002, as part of the New Zealand Government's 10-year strategic plan for early childhood education policy – *Pathways to the Future/ Ngā Huarahi Arataki* – an early childhood education Centre of Innovation (COI) programme began. To be considered as a COI, an early childhood service had to be doing something innovative, worthy of a research

project, and have staff who were willing and able to undertake research. The teachers then invited researchers from tertiary research communities to provide advice and support and to assist with dissemination. Fifteen projects were completed (Meade, 2005, 2006, 2007 and 2010).

During one of the projects (Ryder and Wright, 2005; the teacher as first author), the 'profile books' (portfolios of documented assessments) were shifted from the office into the centre and became an integral part of the programme. This happened after the teachers asked 'Who do the books actually belong to?' The teachers researched the ways the children built autobiographical narratives around this documentation.

Two kōhanga reo became Centres of Innovation. One of these was Te Kōhanga Reo o Puau Te Moananui a Kiwa. During this project, videotapes were made of teaching episodes, and these were revisited over and over again, as a valuable stimulation for debate and change. Practical changes were made to increase the opportunities for conversational reo (Māori language). Outcomes from this project included an increase in the documentation of their practice. As well as the videos, this included photographs, written records of the teachers (kaiako and kaiāwhina) reflection on the video, and portfolios of the children's learning. A theme for their project became documentation and dialogue (Kaimahi of Te Kōhanga Reo o Puau Te Moananui a Kiwa, with H. Poatu and K. Stokes, 2005).

In another kōhanga from this programme, Brenda Soutar with Te Whānau o Mana Tamariki (2010) described the research task for the Mana Tamariki Kōhanga Reo: to strengthen the reciprocal relationships between (i) children as high achievers who exemplify the hopes and aspirations of their people, (ii) whānau (families in the widest sense), (iii) te reo (Māori language) and (iv) paki ako. Paki ako are an adaptation of Learning Stories (Carr and Lee, 2012). Learning Stories are formative assessment documents in story format that include a description of a learning episode (for one or

more children), photographs, an evaluative commentary on the learning and suggestions for the future. The commentary in paki ako includes an emphasis on Māori values, practices and aspirations for children. Te Kōhanga Reo o Mana Tamariki also became a case study in a book on Te Whāriki, illustrating ways in which the Te Whāriki curriculum principle of *whakamana* (translated in the curriculum document as 'empowerment') is supported in practice.

> This principle connects with notions of agency and identity. In some curriculum documents it is referred to as 'self regulation', a label that is more psychological and individual than whakamana/ empowerment, in which the concept of agency is more likely to refer to a context. Children are positioned with, or construct, agency in particular contexts, and may begin to recognise or construct these opportunities in other places: to assume the lead or to take responsibility. (Lee et al., 2013: 78)

That chapter describes the implementation of Te Whāriki from a Māori perspective, illustrating this with paki ako documentation. One of the paki ako (Lee et al., 2013: 80–82) describes a conversation about an act of vandalism in which the teacher (kaiako) writes that the children were 'guided by their cultural practices and values': they shifted the direction of the talk to consider vandalism as disrespect to the community, the building and the ancestors. This written account is revisited for discussion and reflection with the children by the kaiako and the families; paki ako are often printed in poster format and displayed on the walls of the centre for the same purpose.

In the volume *Learning Stories: Constructing Learner Identities in Early Education* (Carr and Lee, 2012), examples of teachers' documentation, including 37 Learning Stories, are analysed and annotated for their role in recalling and reflecting on the learning. Here is Naomi (Carr and Lee, 2012: 5), a teacher, reflecting on revisiting documentation with three- and four-year-old children:

> I have instigated many of these revisiting conversations and sometimes I have not chosen my timing well and the conversation has reflected this; the

child doesn't seem too interested and so I am having to lead the discussion; this often leads to my asking too many questions and the child does not say much. Today my timing was different in that I could see Rose was looking for someone to share her portfolio with and I seized the moment, offering to be that person for her. What a difference between this conversation and the first one I initiated with Rose. For the most part she led the conversation and I followed; I think this shows in comparing the length of my first conversation with Rose [18 verbal turns] and this one [six weeks later: 74 verbal turns].

Narrative Assessment Documents from Early Childhood Practice, Collected Together with Related Research as Exemplars for Teachers

A professional development resource, 20 booklets on documented assessments from early childhood centres in New Zealand, was commissioned by the Ministry of Education and published in 2004, 2007 and 2009: *Kei Tua o te Pae. Assessment for Learning: Early childhood exemplars* (2004, 2007a, 2009). These booklets integrated research-related and theoretical discussions with narrative formative assessments from everyday practice in centres, together with references and reflective questions for professional development. *Kei Tua o te Pae* is a quote from a lullaby or oriori by Hirini Melbourne; it is translated as Beyond the Horizon and Book One explains the use of this metaphor:

> In an ever changing world, we know that young children's horizons will expand and change in ways that cannot be foreseen. Children will travel beyond the current horizon, and early childhood is part of that. (Ministry of Education, 2004, Book 1: 5)

This resource was distributed to all early childhood centres and primary schools in the country, and its publication was followed by a Ministry of Education professional development programme for all early childhood teachers that focused on documentation as a means of formative assessment – using the exemplars in *Kei Tua o te Pae* for reflexive discussion and debate. This publication and

accompanying professional development was another policy initiative under the government's 2002 strategic plan for early childhood education, aimed to improve quality teaching and learning practices. The locality-based evaluation of the strategic plan (Mitchell et al., 2011) that tracked the same early childhood services over 2004, 2006 and 2009 found particularly marked improvements in assessment, planning and evaluation practices and teachers' conceptual understanding of Te Whāriki, gains that were linked to the continuing and high usage of Kei Tua o te Pae, Centre of Innovation publications, workshops and professional development. Parent surveys showed marked increases in the percentage of parents who were contributing to assessment documentation and to the planning for their own child over the term of the evaluation. Teachers' understanding of socio-cultural theory was enhanced; as described in the introduction to the national early childhood curriculum, this theoretical stance was outlined as follows:

> This curriculum emphasises the critical role of socially and culturally mediated learning and of reciprocal and responsive relationships with people, places, and things. Children learn through collaboration with adults and peers, through guided participation and observation of others, as well as through exploration and reflection. (Ministry of Education, 1996: 9)

These findings were supported by a 2006 cross-sectional evaluation of the same resource by Stuart and colleagues (2008). That study also noted shifts in the quality of assessment practices and the associated documentation towards socio-cultural approaches that build an assessment community inclusive of children, families and teachers.

Documentation Designed to Engage Families and Children in Assessment with an Emphasis on Social Competence, Communication and Literacy

Book 7 (Continuity) of *Kei Tua o te Pae* (Ministry of Education, 2004: 27–39) provides

examples of documentation enabling family engagement in assessment. In one of the exemplars, ten learning stories over time in Fe'ao's portfolio document the progress in his learning in social competence, communication and literacy. A number of these learning stories include a parent comment, hand written, indicating that these documents have been revisited with Fe'ao at home and adding some comments of connection with the home (sometimes in answer to a question posed in the portfolio by a teacher). Examples include: 'Fe'ao talk a lot at home about his kite experience at kindy with Aminiasi. He does fly kite at home. He asked his Dad to make up a kite', and 'Fe'ao came home with his pizza made at kindy … he explained how he made it at school – good experience as now he wants to help Mum do baking and he helped'.

Commentary also adds that a note about Fe'ao finding it a challenge to express his needs was followed by a number of episodes in which he shared his ideas, helped others and was open to suggestions (Ministry of Education, 2004: 38). In one of the entries, the teacher had recognised that when Fe'ao dictated a story to go with his painting, he was also referring to another child's book about clouds. She assisted Fe'ao to construct his own book: he chose cloud pictures from the Internet, added his own paintings and dictated the accompanying story. A parent added a comment:

> When Fe'ao arrived home with his school folder, he wanted to show everyone what [was] inside the folder. He explain what he was doing on the photos. He will name each person appear on the photos. If he notice anyone looking up his folder, he will not leave that person look alone, he will come sit next to that person and explain all inside the folder. (Ministry of Education, 2004, Book 7: 28)

From Checklists to Narratives in Special Education, Enabling Two Models of Development and Assessment to Come Together

A research project tracked the process when Learning Stories were used by teams

surrounding two New Zealand children with high and complex needs (Williamson et al., 2006). The Learning Stories highlighted strength- and interest-based learning in natural settings, and this contrasted with the specialists' assessments, which highlighted decontextualised developmental skills. Team members, including parents, teachers, support workers, health and education professionals, shared the narrative documentation in Learning Stories, as well as the specialist assessments, at individual planning (IP) meetings. Goals for the children were collaboratively developed, drawing upon the different perspectives team members brought to the interpretation of the Learning Stories:

This project showed that early childhood teachers, special education specialists, support workers and parents could effectively use the same narrative assessment tool to assess and plan for children with high and complex needs. Learning stories brought together two different assessment models (skills- and strength-based) and harmonised them in such a way that they could be viewed as complementary rather than divisive. The stories included the richness of the multiple perspectives inherent in the team. The lens for assessment was broadened and the focus shifted to include the child's strengths, the holistic view of the child and the teaching and learning context, which aligns well with family understandings and early childhood philosophies, beliefs and practices. Early intervention professionals were adept at 'backgrounding' developmental information pertinent to their expertise. (Williamson et al., 2006: 28)

COLLABORATIVE TEACHER-RESEARCHER PROJECTS: COMMUNITIES OF PRACTICE AND BOUNDARY PROCESSES

The discussion by Gutierrez and Penuel (2014), earlier in this chapter, invited us to consider research discussions that are socially embedded and involve ongoing mutual engagement. In 1996, Jean Lave, too, had emphasised a reconsideration of learning as social:

Common theories of learning begin and end with individuals (although these days they often nod at

'the social' or 'the environment' in between). Such theories are deeply concerned with individual differences, with notions of better and worse, more or less learning, and with comparison of these things across groups-of-individuals. Psychological theories of learning prescribe ideals and pathways to excellence and identify the kinds of individuals (by no means all) who should arrive ... A reconsideration of learning as a social, collective, rather than individual, psychological phenomenon offers the only way beyond the current state of affairs that I can envision at the present time ... The argument developed by Etienne Wenger and myself (Lave and Wenger, 1991) is that learning is an aspect of changing participation in changing 'communities of practice' everywhere. (Lave, 1996: 149)

A key feature of a community of practice is the dynamic relationship between reification (making the practice of the community public in some way, as in documentation) and participation (Wenger, 1998). Documents can also *connect* communities of practice and significantly transform them in the process. In practice, documents can become 'boundary objects'. The concept of a boundary object first appeared in a model that described the divergent viewpoints of participants in the development of the Museum of Vertebrate Zoology at the University of California (Star and Griesemer, 1989). This was a study of 'institutional ecology' in which the authors wrote about the heterogeneity of viewpoints of the participants and the way in which boundary objects – objects that highlighted and coordinated the different perspectives – assisted in collaboration around a common task. To do this recontextualisation and collaboration work, documentation needs to be 'both plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites' (Star and Griesemer, 1989: 393). Later, in 2010, Leigh Star reflects further on this concept. She explains that the notion of a 'boundary' encompasses 'a shared space, where exactly that sense of here and there are confounded' (Star, 2010: 602–603). Documents and documentation can provide a space for practice and research to inform each other within and

across teacher-researcher collaboration. They can provide a focus and a forum for dialogue, collaborative theorising, iterative design decisions and publication partnerships.

Collaborative Research Projects that Develop Documents, Artefacts and Boundary Objects

A New Zealand research fund that has been influential in promoting and supporting practice and research to inform one another has been the Teaching and Learning Research Initiative (TLRI), funded by the Ministry of Education and administered by the New Zealand Council for Education Research (NZCER). Their website provides examples (www.tlri.org.nz). The TLRI programme is designed with five principles in mind, two of which emphasise the connection between practice and research: (i) the research projects within the TLRI will address themes of strategic importance to New Zealand, (ii) the TLRI research projects will build on New Zealand-based research evidence, draw on related international research and be forward thinking, (iii) the TLRI research projects will be designed to enable substantive and robust findings, (iv) the research projects within the TLRI will be undertaken as a partnership between researchers and practitioners, and (v) the TLRI research projects will recognise the central role of teachers and students in learning, and the importance of the work being useful in practice.

In a TLRI early years research project on kindergarten children and their teachers visiting a museum, the authors described the role of documentation as 'boundary objects' as young children developed meaning-making practices in a museum, assisted by their teachers and families:

In this project, data were collected by the university researchers as they recorded reflective discussions with the teachers. All of us made observations and recorded children's conversations, and we

worked together to identify and develop resources that would assist the project aims. The teachers also documented learning episodes for the children's assessment portfolios. This documentation, an aspect of everyday pedagogy, is kept in portfolios and regularly taken home. As we will discuss later, we began to see this assessment practice as providing 'boundary objects' that enabled the teachers to comment on the connections between the kindergarten and the museum. (Carr et al., 2012: 55)

Research has emphasised the key role that family expectations play in children's expectations. The synthesis of over 800 meta-analyses relating to educational achievement by John Hattie (2009: 70) found that parental expectations are far more powerful than many of the structural factors of the home (e.g., single- or two-parent families, families with resident or non-resident fathers, divorced parents, adopted or non-adopted children, only children or non-only children). Documents as 'Home Learning Books' played a key role in a TLRI project on culturally responsive pedagogy in primary science (Parkinson et al., 2011). These were already in use by one of the teachers to exchange ideas between home and school. The children recorded questions and topics in their home learning books at school and notes of conversations with their family at home. Ideas and examples were shared with the class. On occasion, family members came in to class to talk further about their experiences and teachers adapted the class curriculum to explicitly take into account these experiences. Like the assessment portfolios in early childhood centres, these books were treasured sources of information for teachers and students and for their families. In the example of the Home Learning Books, the documentation pushed out the boundary of the classroom to include the families in mutually meaningful ways. As Wenger has commented:

A learning community must push its boundaries and interact with other communities of practice. But in order to go beyond just imagination, these contacts must take place in the course of seeking alignment for some meaningful purpose. (1998: 274)

Opportunities to Publish Create Another Level of Documents that Widen the Audience Beyond the Classroom or Centre

Two New Zealand journals, *set: Research Information for Teachers* and *Early Childhood Folio*, designed for readership by teachers, students, tertiary education professors and lecturers, have provided opportunities for publication that enable research and practice to inform one another. These articles themselves are documents, or boundary objects, that make research accessible to teachers and enable discussions across the practice–research divide.

The first of these journals to be established was *set*, published by the New Zealand Council for Educational Research (NZCER). For example, in 2008, a TLRI research project on science and technology, the InSiTE project, published three papers in *set* (Cowie et al., 2008a, 2008b; Moreland et al., 2008), as well as having four booklets published by NZCER for the TLRI programme. This project centred on Years 1–8 teachers and their students in science and technology classrooms. It examined (i) interactions that support learning in science and technology, (ii) connected and coherent teaching and learning of science and technology, (iii) student understandings of the nature of science and technology and (iv) subject ideas, skills and pedagogies that teachers see as important for student learning in science and technology, and their impact on classroom interactions. In the summary for Booklet 2, the role of multiple modes, documents and artefacts is highlighted:

> This booklet illustrates the multimodal nature of interactions between teachers and students in primary science and technology ... We found that when teachers made use of tasks that provided students with opportunities to make and express meaning through combining several modes, such as engaging with images, drawing, talking, dramatisation, writing and making products, students became actively involved in building and making meaning. These multimodal interactions helped teachers and students work together to negotiate and create shared understandings ... Teachers were able to provide richer feedback when they used multiple modes in their interactions with students. It also helped to provide students with multiple ways to represent, engage with and make sense of their world. (Cowie et al., 2010: 3)

The authors emphasise the opportunity for documents to cross boundaries between students and across locations and time:

> Teachers used artefacts, such as worksheets and templates, real-life artefacts and wall displays, to provide settings and resources for interaction with students. In whole-class settings, easily visible and accessible artefacts directed, guided and supported interactions between students and across locations and time. Artefacts helped students work together in groups and across locations and time ... This booklet includes examples that tease out the multiple modes used by teachers and students during their interactions. There are prompt questions and suggestions for teachers to try out. (Cowie et al., 2010: 3–4)

The second New Zealand journal, *Early Childhood Folio: A collection of recent research*, published twice a year by the New Zealand Council for Educational Research (NZCER), has also provided further opportunities for publication partnerships. It is aimed at an audience of primarily teachers, head teachers and supervisors, but also of students, lecturers and parents. The NZCER website (www.nzcer.org.nz) describes the journal as 'thought provoking and forward looking', 'ideal for staff discussions', 'a source of practical ideas for centre programmes' and 'a research base for critical and reflective thinking'. These, ideals to write for a practitioner audience, are reflected in the many articles written by partnerships of teachers and researchers, as well as teachers writing from their centres and classrooms, or from postgraduate research studies, with data gathered from within their own early childhood settings. Many of these research-based articles use documented data to show shifts in teaching and learning, explicating the roles of teachers, families and children in enriching the curriculum. Often, teachers report the process of critical analysis

and discussion of data that generated new understandings. We highlight two examples here from the 2013 issues, and a Special Issue in 2011.

Combining Different Modes of Documentation to Define and Sustain Democratic Pedagogy

Simon Archard (2013) carried out a small case study in his own early childhood centre, where he was the supervisor. Data came from his MEd thesis and he was supported in the research by his academic supervisor. The article explored three experiences involving children and teachers in relational teaching and learning with ICT. It added teacher reflection to examples of documented assessment to explore how ICT can be used to help define and sustain democratic pedagogy and practices in early childhood settings. Notably, the author gathered data from perspectives of families (in semi-structured interviews), Learning Stories based on observation and discussion with the child/ren, and his own critique of his practice. His article was read widely and Simon was invited to be a keynote speaker at a conference of kindergarten teachers – an indication of how much teachers like to learn from other teachers who are researching teaching and learning in early childhood settings.

Critiquing the Role of Documentation in Engaging with Families

Maria Cooper and Helen Hedges worked as researchers with Daniel Lovatt and Trish Murphy as teachers (2013) in a TLRI project asking 'How might ways of engaging with families set Pasifika children up for learning success?' The article built on the teachers' documented and analysed interests for a Pasifika child, including families' and teachers' perspectives, and it added theoretical understanding from the literature on funds of knowledge and thinking about identity. These researchers and teacher-researchers argued that deeper interpretations may help teachers

to avoid stereotyping children or providing a 'tourist curriculum'.

Teachers Publishing Working Papers During a Research Project

A special issue in the *Early Childhood Folio* published six articles from another TLRI project, entitled 'Key Learning Competencies across Place and Time'. This project crossed the sectors of early childhood and school, researching the alignment of the key competencies in the school curriculum with the curriculum strands in the early childhood curriculum. These articles, all authored by teachers (one of them with a university lecturer partner; two of them with professional development providers who were also on the research team), were developed from Working Papers during the research. In every case, a document or documents are constructed to enable research and practice to inform one another. In the first paper, a metaphor – *te tuangi* (the clam) – for teaching and learning and the key competencies is developed to explain the Māori concept of *ako* which means teaching *and* learning (Simpson and Williams, 2011). A second paper calls on a series of documents as 'centre stories' to argue for and illustrate the notion of an *intentional* teacher (Robinson and Bartlett, 2011). The third paper includes assessment documents in a school classroom to illustrate 'split-screen pedagogy and analysis', analysing the teaching and children's learning from two perspectives – learning areas and key competencies – in the same assessment document (Smith et al., 2011). The fourth paper sets out the documentation of six stories about 'relating to others' (a key competency in the school curriculum) as three layers of knowing (Wilson-Tukaki and Davis, 2011). A fifth paper critiques and rewrites analytical language in Learning Stories for infants and toddlers (Bashford and Bartlett, 2011). The final paper uses classroom documentation to describe the complexity of a learning journey for one child in an early years school classroom (O'Connor and Greenslade, 2011).

DOCUMENTATION THAT CROSSES THE BOUNDARY BETWEEN EARLY CHILDHOOD AND SCHOOL, FROM ONE CURRICULUM TO ANOTHER

One of the Centres of Innovation completed a book on its strategies for the children's transition to school, entitled *Crossing the Border: A Community Negotiates the Transition to School* (Hartley et al., 2012; three of the authors are the teachers). The 'border-crossing' theoretical frame in the text of the book centrally includes a range of documentation tools, illustrated by photographs: (i) children sharing a portfolio of learning stories with a teacher at kindergarten (p. 19), (ii) teacher portfolios (p. 21), (iii) a child sharing his portfolio with two other children, (iv) a Visit to School learning story (p. 24), (v) a specially constructed place for children's early childhood portfolios to be housed in the school classroom (p. 26), (vi) a 'transition to school' photo display board at the kindergarten, a board that includes photographs of the school teachers and of the school buddies (p. 30), (vii) information pamphlets and parent packs (pp. 41–42), (viii) children sharing their school visits in individualized 'school visit books' (p. 39), and (ix) a drawing by Ben alongside a letter from the school about when he will meet his buddy.

Children's Portfolios

One of the chapters in the *Crossing the Border* book describes the use of portfolios as tools for enhancing learning 'across the borders' between the early childhood centre and school; another was a re-analysis of the documentation in one child's assessment portfolio, with the school curriculum's five key competencies as the unit of analysis. The introduction to the chapter on portfolios includes the following commentary on 'border crossing':

> As a form of formative assessment, Learning Stories focus on the relationship between learner

and context, documenting the interactions of the learner and reflecting the sociocultural view of learning implicit in *Te Whāriki* ... This paradigm shift to assessment as a sociocultural activity supports the use of the portfolio not only as an individual record of learning in one setting, but as an assessment and documentation tool that can cross the borders between settings. (2012: 17)

In another project, a commentary by a teacher, Robyn, illustrates the opportunity for documentation that crosses a boundary from one place to another (in this case from an early childhood centre to the nearby school library) to have apparent implications for identity:

> Today I was quietly surrounded by three children. We were revisiting their folders together. Children were exclaiming over the photos of themselves and their friends and recalling what was happening. Sela was leaning on the sofa behind us revisiting her folder alone carefully turning the pages and talking to herself. I was very aware of her and I hadn't seen her show this level of interest in her folder before. She was looking at some photos of herself where she is sitting with one of the school librarians in the school library. Then I heard her say to herself 'I'm a library girl, I'm a library girl' in a sweet singy-songy chant. She said this in a proud way smiling and to herself. I was astonished as I had never heard Sela speaking in English apart from the odd word. (Carr and Lee, 2012: 10)

The Concept of Teacher Portfolios

Teacher portfolios have been developed in some early childhood centres. These originated from an idea about 'bio-boards' from Curtis and Carter (2003); they contain stories and photos of the teachers' professional and home life and are stored with the children's portfolios, readily accessible for children and families to read. In the *Crossing the Border* project, these portfolios began as a page about each teacher in the children's portfolios. The teacher portfolios became a popular source of conversation with families and children. The teachers comment:

> The children constantly access the teachers' portfolios, discussing where teachers live, their families, pets and interests outside of the kindergarten.

They discuss our photos, investigating the relationships portrayed, and build a picture of the teacher as a learner as well as a participant in the life of the children and families in the kindergarten community. (Hartley et al., 2012: 21)

They add (p. 21):

> More recently, William, a toy guinea pig, joined one of the teachers [Carol] on a holiday in London and began sending emails and photos back from London with Carol. He now has his own portfolio and the children are able to take William for adventures on family holidays ... All of this documentation contributes to the funds of knowledge about the children, families and teachers (Gonzalez, Moll and Amanti, 2005). These visual records are highly accessible, able to be read, revisited and shared.

Transition to School Portfolios

Inspired by the 2007 New Zealand (school) Curriculum, which includes *key competencies* as outcomes, a number of early childhood centres in New Zealand have prepared Transition to School portfolios. These include a selection of recent Learning Stories, chosen by the teachers in consultation with the children and sometimes the families. At least one chosen story makes connection with one of the five key competencies in the school curriculum: thinking, using language symbols and texts, managing self, relating to others, or participating and contributing. An alignment between these five key competencies and the five curriculum strands in the early childhood curriculum, Te Whāriki, is published as a diagram in the school curriculum document (Ministry of Education, 2007b: 42). This diagram also makes an eloquent connection with learning beyond schooling, and it is included in the front of the Transition to School portfolios. The first trial was at Taitoko Kindergarten when interviews with two new entrant teachers at the local school suggested a number of consequences for these documents (Carr et al., 2013). Consequences were described as: facilitating 'getting to know you' conversations as the new entrant teacher discovers what interests

the child and together they can reflect on the stories, a language and literacy artefact that can be read and revisited by the child, a tool for facilitating a sense of belonging in a new environment as the transition to school portfolios were included in the display of early reading books in the classroom, a clear indication for families of the learning pathway from early childhood to school because the alignment with key competencies was included and discussed in the portfolio, and a reification – published evidence – for families of the valued learning that their children were taking to school. The Transition to School portfolio, too, provided a bridge between two communities of practice with different curriculum documents that reify the expected learning, and different forms of participation: the community in and around the early childhood centre and the community in and around the school. It provided an opportunity for early childhood teachers and teachers of junior classes to get together to construct indicators of learning that apply to both the learning dispositions in the strands of Te Whāriki and the key competencies in the New Zealand (school) Curriculum.

CONCLUSION

In this concluding section, we return to Carlina Rinaldi's analysis of documentation and its role in the early years, introduced in the first section. She pointed out that in recent times, and exemplified in the Reggio Emilia schools, 'documentation is interpreted and used for its value as a tool for recalling; that is, as a possibility for reflection'. We have emphasised the opportunity for children, families, teachers and researchers to use documentation to recall and reflect for a range of purposes. To do this, we called on experience in New Zealand of researching in early years centres and schools. Three contexts have been discussed and illustrated. The first was teachers researching their own practice, assisted in this work by sharing and

revisiting their documentation in various ways and sometimes with the assistance of external researchers. This context emphasised the purpose as the construction of learning over time, children's identities as learners and the local community as the audience. A second context was collaborative projects where the documentation did some of the work of connecting two communities of practice: researching scholars and researching teachers. This introduced the notion of documents as boundary objects, contributing to the development of conversations and mutual understandings about learning and research. A third context was research projects that crossed the boundary between early childhood and school.

Some opportunities for both researching scholars and researching teachers working in these spaces were made apparent. The first of these is research funding opportunities where proposals must include partnerships, and 'relevance to practice' is a criterion for rigorous research. This imperative was introduced in the description of purpose early in this chapter via the quote from Kris Gutierrez and William Penuel (2014: 20); it gives value to research projects that are 'open-ended social or socially embedded experiments that involve ongoing mutual engagement'. The second opportunity is a place for researching teachers to publish short papers that are accessible and interesting to other teachers. Frequently, these are co-authored by university researchers, and often they are followed by longer publications and books.

As a final conclusion, this chapter might encourage debate about what kind of documentation is best able to strengthen the purposes in each of these three contexts and to position educational research in open-ended social or socially embedded spaces. We suggest that documentation will need to invite and/or construct recontextualising: vertically (over time and as socially constructed learning journeys) and horizontally (across places and communities of practice, building bridges for understanding). Five reflective questions to further these conversations follow.

QUESTIONS FOR REFLECTION

From your teaching and/or research experience:

1 If, as Gutierrez and Penuel suggest, we assume that educational research is about moving away from 'imagining interventions as fixed passages of strategies with readily measurable outcomes and toward more open-ended social or socially embedded experiments that involve ongoing mutual engagement', how might documentation play a part?
2 What documentation assists teachers to research their own pedagogy in the contexts that are most familiar to you, and how does it do this?
3 In the contexts that you know best, what documentation might enable and encourage families and/or the wider community to become engaged in discussions about education?
4 What documentation in those contexts has research value, as Carlina Rinaldi asks, as a tool for recall and as a possibility for reflection by the wider research audience amongst the national and international education community and policy-makers?
5 Given an interesting document and willing conversation partners from different education sectors, what might a valuable collaborative reflection look like?

FURTHER READING

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