This chapter discusses the methodological approaches used in this study, primarily the use of participatory action research processes. These processes emphasise collaborative working and shared ownership that is also characteristic of the approaches to pedagogy at Wadestown Kindergarten. The transformational possibilities that open up when teachers are learners too, and children, parents, and whānau can all be experts, are central to our study. We investigated ways in which a participatory “interweaving” of contributions to curriculum, assessment, planning, evaluation, and documentation could serve to strengthen learning and empower the learning community and its members. We also highlight the use made of videotaping as a tool for documenting learning episodes, and for critical reflection and discussion. In this chapter, these processes of data collection, ethical considerations, and data analysis are discussed.

**Participatory action research**

The research approach sought by the Ministry of Education is action research, with COIs investigating their innovative practices in relation to teaching and learning in order to further develop their innovation. Although action research cannot be thought of as a mechanical process, it is generally thought to involve a spiral of self-reflective cycles of the following:

- planning a change;
- acting and observing the process and consequences of the change;
- reflecting on these processes and consequences;
- re-planning;
- acting and observing again;
- reflecting again, and so on. (Kemmis & McTaggart, 2005, p. 563)

In reality, these stages are not neat and separate, but may overlap as participants respond to their experiences:

> The criterion of success is not whether participants have followed the steps faithfully but rather whether they have a strong and authentic sense of development and evolution in their practices, their understandings of their practices, and the situations in which they practice. (Kemmis & McTaggart, 2005, p. 563) [Original emphasis]
McTaggert (1996, p. 248) argued that:

The Lewinian spiral has created serious confusion about the idea of action research, the fundamental feature of which is collective reflection by participants… It is a mistake to think that slavishly following the ‘action research spiral’ constitutes ‘doing action research’. … Action research is not a ‘method’ or ‘procedure’ for research but a series of commitments to observe and problematise through practice a series of principles for conducting a social enquiry … We can say that the spiral makes explicit the need for acting differently ‘within the study’ as a result of progressively learning from experience.

In our study, we did not use mechanical “spirals” of action research. Rather, we gathered data about multimodal literacies at Wadestown Kindergarten, discussed and analysed the data within the research team and with parents, and linked our analysis to our readings and interpretation of theoretical ideas. In this way we were able to generate deeper and more complex understanding about the nature and manifestation of multimodal communicative competence, and the role of people, places, and practices in mediating multimodal literacies. The insights teachers gained contributed to more responsive and meaningful interactions with children and families and a more critical approach to practice. Teachers said that they had greater appreciation of children’s literacies and subsequently explored these within pedagogical documentation.

A rationale for using action research methods is to focus in an educational setting on educational improvement and involvement as two core aspects (McNiff, 1992). We would characterise our proposed approach as having elements in common with “participatory action research” (Kemmis & McTaggert, 2005). It aimed to be a participatory approach, by engaging people within the Wadestown Kindergarten community of practice in examining their knowledge and understandings; to be practical and collaborative, taking place within the kindergarten setting and including teachers, children, research associates, parents/whānau, and kindergarten association staff; to involve collaborative critique; and to be “reflexive”, “aiming to help people investigate reality in order to change it” (Kemmis & McTaggert, 2005, p. 567).

Mattsson and Kemmis (2007) described action research as “praxis related”, or related to changing the “informed and committed action” (p. 186) of individuals at particular times and in particular places, and at changing structures and patterns of activity that contribute to injustice. In our study, we aimed to offer opportunities to consolidate, deepen, and strengthen pedagogical approaches, and to contribute to understanding of multimodal literacies and the need for more inclusive practices in an ECE context.

Roles and relationships within the research project

Early in the project we developed a relationship agreement, setting out roles and responsibilities of teachers, research associates, the kindergarten employing association, and parent representatives. An overall aim was to draw on the expertise, experience, and networks of each participant, while building capacity and confidence through all stages of the research. This included developing the research design as part of the application to become a COI, designing research instruments, making ethics application, planning and implementing the action research, deliberating over and analysing data, and writing the final report.
Lynette Wray (as senior teacher, WRFKA) provided support to teachers. She worked in collaboration with teachers and research associates, participating in interviews and analysis of data/video recordings, and planning and analysis of action research cycles. She provided an avenue for workshops and dissemination through WRFKA.

Amanda Coulston (as general manager, WRFKA) provided management support and acted as a critical friend.

Three groups were set up to contribute to the research project.

**Research group**

In the initial stages of our research, the teachers and research associates introduced the project to the kindergarten whānau and community through a parent information evening. From this meeting we established a research group which included representatives of all the participants in the COI project: teachers, Yvette Simonsen and Mandy Blake; research associates, Maggie Haggerty and Linda Mitchell; Association representatives, general manager, Amanda Coulston and senior teacher, Lynette Wray; and parent representatives, Ali Spencer, Nikki Shaker, and later in the project Alex Macdonald. The role of the research group was to oversee the research process, including developing relationship agreements, policies, consent forms, research instruments, information pamphlets, and regularly meeting to discuss research progress and process.

**Advisory group**

An advisory group was set up to provide feedback on the research design, instrument, and final report. Advice, feedback, and critique were offered by the group at the beginning and end of the project. Those included in the advisory group were Amanda Coulston (general manager, Wellington Kindergartens), Lynette Wray (senior teacher, Wellington Kindergartens), Sophie Alcock (COI co-ordinator for the Ministry of Education), Huinga Jackson-Greenland (Te Kura Māori Victoria University of Wellington), Ali Spencer (Wadestown Kindergarten parent representative), and Nikki Shaker (Wadestown Kindergarten parent representative).

**Pedagogical discussion group**

We instigated a pedagogical discussion group, which met for sessions that were scheduled at different stages throughout the project. The purpose behind this group was to meet and discuss research-based theoretical readings relevant to the research focus in order to:

- investigate the thinking about and use of concepts and approaches relevant to our project, such as “multiple literacies”, “pedagogical documentation”, and Māori concepts such as “ako”
- keep up to date in our knowledge of relevant research and theory
- develop a wider view and understanding through the process of discussing different perspectives on the same material.

Members of the group included Wadestown Kindergarten teachers, the two research associates, the WRFKA senior teacher, and parent representatives.

The discussion group met about twice a year throughout the project.
Data collection

We collected baseline data over a range of areas, and also used this data to plan the action research. We gathered comparable data over the term of the COI project, enabling us to track development in relation to our research focus alongside the professional development, insights, and actions that occurred. We developed the methods for data collection described below through discussions by the research group of teachers, research associates, parents, and the senior teacher. The methods were finalised after further discussion with our advisory group, and after application to the NZCER Ethics Committee. Interview schedules and discussion questions are contained in Appendix A.

We used a range of methods that enabled us to triangulate information.

Case studies of six children

We carried out case studies of six children, gathering pedagogical documentation used in the child’s assessment portfolio, and video recordings (see below) of their literacies over 18 months of the COI project. The children were chosen from three-year-olds who were likely to remain at the kindergarten until school age. Parents of all eighteen eligible three year olds were invited to participate. Thirteen parents (of eight boys and five girls) volunteered. Teachers discussed children’s preferred literacies with these parents and the reasons for needing to select only six children. Final selection was made by teachers on the basis of gender balance and obtaining a range of literacies.

Parents were interviewed at the baseline and final phases of the project about their child’s strengths as a communicator and family values and strengths (see Interviews below).

Parent sessions

A preliminary session was held with parents in which members of the research team explained the project and the research questions. Subsequently, a parent focus group meeting was held at the start of the project to discuss ideas about multimodal literacies. There were around 30 participants from 60 families. As a catalyst for discussion, parents were shown videoclips of children involved in various activities and practices involving communication and meaning making. They were asked to consider which activities and practices they saw as constituting a literacy and why, their aspirations for their own child as a communicator, and how the kindergarten might support multiliterate communicative competence.

Video recordings and analysis of curriculum events

Video recordings were made of a sample of curriculum events where multimodal literacies were evident. Maggie Haggerty, one of the research associates, had explored the use of video feedback in curriculum development in five case study centres in New Zealand (Haggerty, 1998; 1999). Maggie Haggerty made recordings at the start of the project, and later supported the teachers to make further video recordings at intervals throughout.

We invited different groups from the kindergarten community of practice (teachers, researchers, children, Association, parents, and whānau) to discuss the video recordings. Cameron (2005) has
shown how the use of videos of practice in early childhood centres in Hungary, England, and Sweden can stimulate discussions about understandings of practice. Observing and commenting on video-recorded practice “renders familiar practices ethnographically both visible and “strange” and so accessible as a subject for discussion and reflection” (Cameron, 2005, p. 24). In our project, having different groups from the kindergarten community of practice seemed to heighten questioning of taken-for-granted interpretations where interpretations varied, and contributed to understanding. Discussions were made richer as different participants offered comment about the situations being observed. Experience and knowledge bases varied: teachers were able to provide background knowledge of children and their experiences outside of the videoed episodes; parents knew the child from their own home context; and the research associates and senior teachers had “outsider” perspectives. At times one participant noted a different point of interest, which contributed to the group gaining a deepened understanding.

Biggs (1983) compares the process of self-viewing with being able to step outside the self and suggests it is the ability to distance the self from one’s own behaviour that leads to increased choice and change:

A space emerges between the viewer and the object of attention, the self as actor. This distance leaves room for an area of . . . free play around the object of attention which means it can be more easily described in different ways and from different points of reference. Immediately that one is distanced from events, questions arise. . . One becomes aware of alternatives to the existing state of affairs . . . (p. 221)

The use and analysis of video-recordings and stills from the videos served the following purposes:

- evidence of literacies and the context and interactions in which they occurred
- critical reflection to inform the action research
- a means of providing a focus for people from the wider Wadestown Kindergarten community to contribute to discussion about literacies modes in early years
- a means of providing a focus for dissemination purposes. Through preparations for dissemination tasks there was also an opportunity to re-think and reflect on developing ideas
- a means of providing a focus for parents of case study children to discuss their child’s use of different communication modes.

**Interviews**

Interviews and discussion with separate groups of children, parents, teachers, research associates, and the senior teacher were held at the baseline and final phases of the project. Two people from the research team (e.g., a teacher and a research associate) undertook each interview.

At the baseline phase, the research associates gave some training in interview techniques. As part of this training, NZCER guidelines about probing and prompting in research interviews were discussed and copies provided for each interviewer.

In the final phase, after analysing interview transcripts we decided to review how we each approached the role of interviewer. The main areas where there was room for improvement in this role were in prompting and probing to elicit more information and thoughts, and in more careful listening. For example, we noted the value of asking for an explanation to prompt a mother to
recount how her child’s use of graphic conventions came about, and its significance. We also noted that in some instances the interviewers offered their own opinions rather than eliciting the views of the parent being interviewed. In these instances, parents tended to simply agree with the interviewer rather than give more expansive responses. We addressed this issue for the final round of interviewing by returning to the NZCER guidelines on probing and prompting.

Specific questions for each group were developed:

**Parents.** At the baseline phase, case study parents were asked to discuss their own child’s portfolio and video clips with the interviewer (a research associate and teacher). The focus of the discussion was on what messages these documented examples gave the parent about their child as a communicator and learner, and about communication that was valued and fostered within the family. At the final phase, a similar process was followed but the focus of questions was on changes that the parents had observed, and parent views of how the family and kindergarten experiences had contributed to their child’s communicative competencies.

**Teachers.** At the baseline phase, teachers were asked about their understanding of the term competent, multiliterate communicator, their pedagogical strategies, their interest in theory and its connection to practice, and challenges and aspirations.

**Research associates and senior teacher.** At the baseline phase, research associates were asked about their understanding of the potential of multiple literacies, the influence of theory, their views of Wadestown Kindergarten’s pedagogy, and challenges and aspirations for the COI project.

**Children.** At the baseline phase, teachers used the child’s portfolio and video clips as reference points in conversations. Teachers found that these informal conversations elicited children’s views more readily than did formal interviews. Teachers had conversations about things relating to multimodal literacies; for example, talking with children about their use of a particular literacy, asking about their intentions, asking children to explain what was happening, and talking about experiences at home. One case study child (Ben S) was also asked by his parents to participate in their parent interview.

**Focus group discussion**

At the baseline phase, parents and whānau were invited to meet for discussion in a focus group. Video clips of children involved in activities and practices involving communication and meaning making were shown as catalysts for discussion. The group was then divided into three small groups, with discussion in each group facilitated by the research associates, teachers, and the senior teacher (working in pairs) around the meaning of multiple literacies. Focus group questions are included in appendix A. The following diagram was shown as a further catalyst for discussion. The diagram was intended to explore both what participants regarded as the key meaning-making

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1 A collection of narratives, artefacts and photographs selected for their significance in reflecting a child’s interests, learning and development, their participation within the kindergarten community, and their wider family context. Portfolios are used for assessment and curriculum development purposes by teachers, children and families, to facilitate interchanges with families, and as an account of a child’s time at the kindergarten.
properties of different literacies, and the social dynamics involved in defining what counts as a literacy. We asked parents to consider the documented examples in relation to the diagram.
The small groups reported back to the whole group, which then discussed ideas about “What counts as a literacy and why?”

**Pedagogical documentation and teachers’ evaluative conversations**

At intervals throughout the project we collected samples of pedagogical documentation involving both individuals and groups that demonstrated multimodal literacies and were relevant to our research questions. We also drew on some of the regular discussions between the teachers and Maggie Haggerty where the focus was on planning and evaluation linked to multimodal literacies. These helped us to better understand the affordances particular modes offered individual children and groups. We used the research questions as our reference points.

**Ethics**

Ethics approval was gained from the NZCER Ethics Committee. The ethics application paid special attention to the naming of participants, gathering “consent” from children and parents, and the use of videotape within the project.
Under the terms of the COI project, Wadestown Kindergarten is named and information disseminated about it. Teachers and research associate names are also used. However, the real names of parent and child participants are used only if these participants wished this. Parents were asked to give consent for their child and the use of their child’s name or a fictitious name.

Participants had access to written information and opportunity to discuss and understand the project and the implications before being asked to give or decline consent. Teachers also talked to the children about the project, to explain why we were videotaping. We talked to a child as well as their parents if we wished to use documentation involving the child in dissemination activities. We thought it was important to provide parents/whānau with the option of giving consent for each publication of any individual item related to their child, since parents may be happy with one purpose but not another. We considered that extra care needed to be taken to discuss with families any issues about publication of photographs or videotapes of their child, so that informed decisions could be made about consent. We agreed not to make videotaped episodes available on a public website.

We were also aware that the use of video for critiquing practice can result in tensions between a) safeguarding the psychological safety of individual participants and ensuring them sufficient support and b) pushing forward the process of critique. Maggie Haggerty was experienced in working with video in this way, looking out for distress and finding positive strategies to work through any distress if it occurred.

**Data analysis**

We developed the following process over some time and with some trialling to assist us in analysing the data.

First, we worked out how we could group each of the types of data so that we could bring the data together in a way that was meaningful for the research questions, make comparisons and contrasts, and think about interpretations. The initial categories were:

- evidence of notions of literacies (for example, What counts as a literacy, and why? What doesn’t count as a literacy, and why not?)
- evidence of literacies and relationships between them
- evidence of roles of literacy in community building;
- evidence of children’s literacies in taking on a “tuakana teina” role
- evidence of literacies in *ako*. (The concept of *ako* does not distinguish between teaching and learning, but emphasises the *enterprise* of learning, and how this operates in a given setting or community. Ako is a concept that helps us understand and facilitate the shifts that can occur in who leads or contributes to learning interests: children, teachers, parents, or whānau.)

In the final analysis phase, to reflect our changed research questions, the last two categories were changed to: one category:

- evidence of the role of people, places, and practices in mediating children’s use of multimodal literacies.
We allocated each member of the research team responsibility for analysing data from two case study children and to act as a resource person for leading discussion about these children. Initially, for each child we sorted transcripts of interviews and focus groups, sections of video, and excerpts from documentation, into the categories, using colour coding of transcripts and highlighting relevant sections of video recordings. We brought each of the data sources for that category together, and wrote down our ideas about how we might interpret it.

Next we brought our analysis to the research group (teachers, senior teacher, research associates, nominated parents). We discussed what we had found, how we interpreted this, and what else we needed to know. Every person in the group contributed their ideas.

As an example, in analysing data from Miro (a case study child), we found consistent evidence of Miro’s strengths and interest in oral communication, print-based literacies, art, dance, and constructing. This came through in the videotape, interview with parents, and documentation from her portfolio. Miro’s mother, Alex, was a member of the research team. She added to the interpretation with rich examples from home, and her discussion of the home environment showed how these literacies are reinforced at home. Through our discussion as a research group (including Alex) we started to see in the examples that Miro’s literacies were both an entity within themselves, and also an avenue for thinking, development, and deepening of understanding. We found Miro seemed to have a predominant and keen interest in the question “How does this work?” and she explored this interest through different literacies and within relationships. This analysis made sense to all of us including Alex. We decided to watch out for a focus on enquiry about and reflection on thought processes in documentation from other children as well as Miro.

The discussions that we had as a group enabled us to reflect on the data in a critical way and to explore the data in depth. The parent interviews and involvement in the research process added to the complexity of analysis. Parents contributed their understandings, interpretations, and insights about their child’s literacies, and discussed home experiences. Some parents provided pedagogical documentation from home. Yvette has commented (see Research team reflections) on the challenge for her and Mandy as teachers to work out how to have such meaningful discussions with all parents, and how to build a culture where all parents can share examples of their child’s learning with teachers.

Limitations of the study

The study contributes to an understanding of the nature of multimodal literacies, and the people, places, and practices that support these literacies. The link to research literature enabled us to make connections with other studies and theoretical ideas, and strengthen interpretations.

However, the study focused on particular literacies that children in the study manifested, and is therefore limited in its scope. It is also limited through its use of data from only one kindergarten, located in a mainly high socioeconomic community. It would be useful to undertake further research of multimodal literacies in a range of different settings.

We would have liked to follow case study children through the transition to school, but were not able to do so. Nevertheless, the research has raised questions about the extent to which, and how,
schools provide for different modes of literacy alongside reading, writing, and numeracy. Such questions could usefully be considered in further research.