

## **Chapter 3**

### **Research Methods**

#### *Uluulu a matafolau*

You must thatch the house in order from the bottom to the top otherwise it will let in water. Do not hurry things, they must be done properly.

### **Overview**

This chapter is about collaborative, participatory action research processes. There is a description of the action research processes enacted in this study. Ethical considerations and Pacific research methodologies are described. An outline of the action research cycles is provided, followed by an explanation of each of the action research tools adapted or developed and used in this research study. The action research tools include: focus group interviews; a “critical incidents” study; observations of children and adults; teacher diary records; children’s interviews/children’s voices; and parent surveys. Finally, data analysis procedures are outlined, and a framework for analysis is presented.

### **Action Research Processes**

At the A’oga Fa’a Samoa, we implemented an action research spiral approach. The action research approach was similar to those used recently in New Zealand studies (Cardno, 2003; Carr, May, & Podmore, 2002). This involved using a spiral approach that included observing, planning, acting and reflecting (following a model derived from Kemmis and McTaggart, 1988, and with reference to Cardno, 2003, and Wadsworth, 1991).

We found the participatory action research was collaborative, and potentially emancipating (in line with the views of other participatory action researchers and writers, for example—Atweh, Kemmis, & Weeks, 1998). The action research was also demanding of teachers’ time and of the centre’s organisation of staffing, and it offered the research team particular, exciting challenges associated with record keeping in both English and Samoan.

## **Ethics, Participatory Approaches, and Pacific Methodologies**

We carried out the research in accordance with the Ethical Guidelines of the New Zealand Association for Research in Education (1999). General principles, cultural appropriateness, consent, confidentiality, and responsive feedback were all important. We also developed and appraised the research procedures for cultural appropriateness, with regard for Pacific methodologies.

Sensitivity to the centre philosophy was needed to maintain the children's experience of Samoan language. Given that there were extra visitors to the centre, it was necessary for adults to meet to discuss the project in an area that is separated from the children, and an additional room was built for this purpose. Sensitivity to the child participants, and to the needs of infants/young children being observed is important throughout all phases of the research (Cullen, Hedges, & Bone, 2005; Hedges, 2002).

Before the research commenced, the Victoria University Human Ethics Committee approved the proposal. Informed consent for the research was then sought from the staff and centre parents; and from the primary school principal, primary school teacher in the bilingual Samoan unit, and parents of the school children in that class.

Processes included ongoing analysis of the research approaches with reference to Pacific research methodologies, as a safeguard for cultural appropriateness (Anae, Coxon, Mara, Wendt Samu & Finau, 2001; Podmore, Wendt Samu, & Taouma, 2003). Collaboration and participation, and the establishment of (self-critical) communities were important characteristics of the A'oga Fa'a Samoa's research, a priority which is consistent with generally agreed "tenets" of participatory action research (Borgia & Schuler, 1996; McTaggart, 1989). An advisory group, convened initially to consult and finalise the research proposal, has provided advice and served as a focus group.

## Action Research Tools

### Focus Group Interviews

An initial advisory group (convened 20 February 2003 to consult and finalise the research proposal) continued to provide advice for the research project. Several key interviews/discussions of the focus group yielded useful data for the study. In-depth discussions around the focus group topics/questions provided background information pertaining to the first research question: “What helps learning and language continuity as children make transitions within and from the Samoan language immersion centre?”



Photo 4: The A’oga Fa’a Samoa COI focus group: Some key members 2003-2006

Participants in the focus group interviews included a facilitator, 3-4 teachers (including 1 from the primary school on site), 2 researchers, 1 representative from centre management, 2 parents, the centre manager, and a centre support person. The voices of more of the parents of participating children (that is, the groups of children

making transitions) were included after the team had reflected on the processes and findings of the first two spirals of the action research.

Topics discussed in the focus groups included:

- (1) aspects of language learning and
- (2) successful experiences of children's transition.

A copy of the key questions for the focus groups is presented as Appendix A. The focus group facilitator, together with the researcher/s, "moderated" the focus group, drawing on the experiences and views of the informants. The duration of the focus group discussions was from two to three hours. Recording methods included: recording the interview on a laptop computer; note-taking, and audio-taping sections for further analysis. The recorded information was always checked by participants to record collective views accurately and to ensure prompt feedback on the accuracy of the records (as in Podmore & May, with Mara, 1998).

### Critical Incidents Study

A critical incidents study with the focus group participants, carried out by Dr Airini, is summarised under the heading: "*Critical incidents research summary: What helps effective transition in Early Childhood Education: Perceptions of good practice in Samoan ECE*" in an earlier report (Podmore, Airini & the A'oga Fa'a Samoa, 2004, November). The findings are also included in this report (see Appendix E).

### Observations

Centre educators observed the group of children for whom they were the "primary caregiver" (that is, the group of children with whom they made the transition) and Learning Stories to assess children's experiences (Carr, 2001). In addition, as a central part of the action research, key educators tracked small groups of children as they make these transitions:

- the move at around 2 years 6 months from the infants' and toddlers' area to the over-2s area;
- transition from the Samoan-language early childhood centre to the primary school on the adjacent site.

The children's transitions guided the timing of the cycles and spirals of the action research. As small groups of toddlers moved to the over-2s area, and as small groups of children made the transition to school, centre educators observed the transitioning children.

All teachers observed individual children, and small groups of children, as they made transitions. As part of the research process, three teachers tracked groups of children who were making transitions (together with their "A'oga Fa'a Samoa primary caregiver") within or from the early childhood centre. These teachers maintained observations and diary records and they coded their observations of both the children's and the teachers' interactions across the strands of *Te Whāriki*:

Belonging	So'otaga
Well-being	Soifua laulelei
Exploration	Ola Su'esu'e
Communication	Feso'otaiga
Contribution	Sao.

During the research cycles, other staff members also continued their regular practice of writing Learning Stories about children, and these were a further rich source of data.

### Diary Records

Alongside their observations, teachers who had a key role in the COI research made diary records across the five strands of *Te Whāriki*. They reflected, both on children's experiences of transition, and on teaching practices, holistically across the strands of *Te Whāriki*. Details of the diary headings are presented as Appendix B.

The teachers sorted and categorised the observations, and their diary reflections, by using felt-tipped pens and colour coding: Belonging = blue; Well-being = green; Exploration = yellow; Communication = pink; and Contribution = orange. We decided that this was a manageable and meaningful process. Teachers recorded and reflected on examples of practices which helped transition, and/or encouraged children's Samoan language learning and development.

The information recorded includes useful examples of teachers fostering children's sense of belonging, together with their well-being and exploration in the new space, and of teachers encouraging communication in Samoan. There are also examples, during transition, of contribution (children looking after others as they arrive).

### Interviews with Children

Teachers who had a key role in the COI research team also made audio records of children talking about their transitions. A set of suggested questions was compiled for educators to ask the children (in the Samoan language). The questions at transition points, for example, are "*What are you looking forward to (doing) at school?*", "*What do you like about school?*" or (before and after the child moves across to the over 2s area within the centre "*What do you like best at.... (the centre)?*" (see Appendix C).

These interviews were prepared prior to the first cycle of the action research, and trialled with some of the children during that cycle. However, we found that the range of data collection tasks was too diverse and demanding of staff time. This led to the collective decision that teachers would concentrate on observations and their reflective diary records for the second spiral of the action research (i.e., the spiral which tracked the group of toddlers and of young children who made transitions during the first term of 2004). The next cycle concentrated on interviewing the children making transitions at that time. It also included their parents' voices by inviting parental participation at focus group meetings.

### Parent Surveys about Language Acquisition

In addition to the action research tools developed for the project and summarised above, two staff members separately initiated surveys of families. The focus of the surveys (together with the observations and teachers' diary reflections on children's communication) was consistent with the proposition in a recent review of Pasifika early childhood education research, that a key priority is to "describe (and evaluate) the languages experiences of Pasifika young children" (Meade, Puhipuhi, & Foster-Cohen, 2003, p. 40).

The aim of the surveys was to learn more about parents' vision for the centre and for their children's language experiences. A questionnaire used by the two staff members (Ene Tapusoa and Ta'a Tuai) was adapted from a questionnaire first developed by Jan Taouma (1992). The 10 questions are about Samoan language experiences at home and at the centre, parents' views on the child's experiences at the A'oga Fa'a Samoa, and their related satisfaction and suggestions (see Appendix D). A short explanatory letter, together with the brief questionnaire, was given out to 41 families, of whom 36 returned written replies (a response rate of 87.80%).

### **Robustness and Validation**

It was important to ensure that, in this action research, the research design was sound and the findings were robust and meaningful. Support from very experienced research associates was essential both for developing the project design and for supporting research capability among the staff and key "teacher researchers". We used multiple methods to generate the data—observations, interviews, surveys, focus group discussions—and our research involved a good range of participant groups (children aged from 2 to up to 6 years, teachers, parents, management, school teachers, and the focus/advisory group).<sup>1</sup>

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<sup>1</sup> These design strategies meant, in qualitative research terms, that there was within-study triangulation. Triangulation is widely accepted by researchers as a useful process for enhancing robustness (Aubrey et al., 2000; McMurray, Pace, & Scott, 2004). "Triangulation" can mean: using multiple ways to collect data, or using several theories to interpret data, or drawing on multiple participant perspectives (across several researchers, observers, or participant groups).

We also checked the validity of both:

- the research processes (for comprehensibility and appropriateness) and
- the data analyses and interpretation of the findings (for “accuracy” and authenticity)

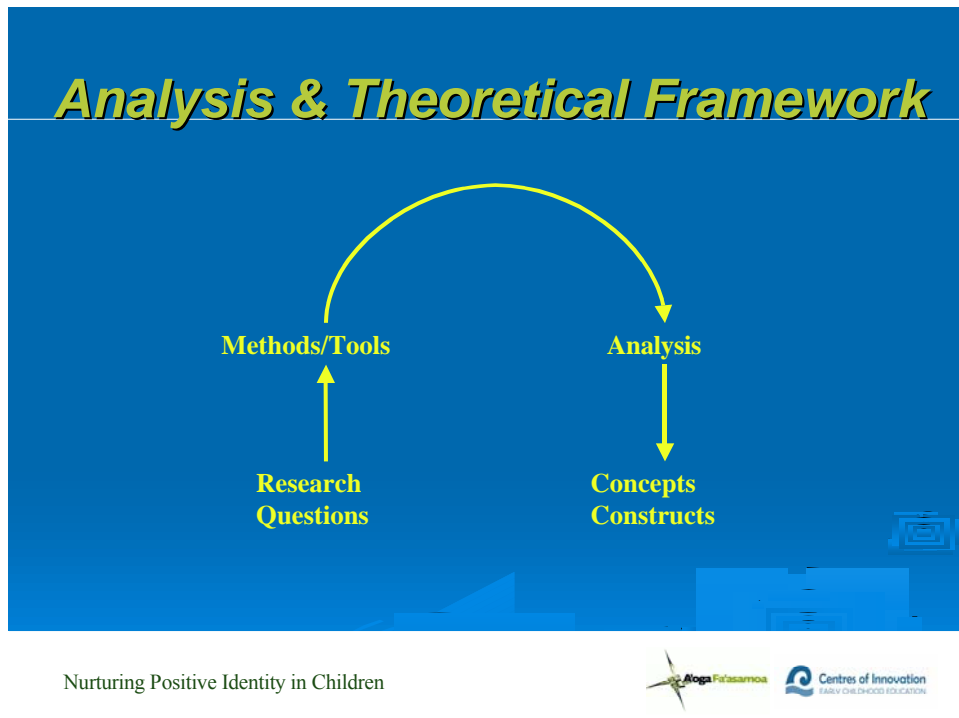
(Kemmis & McTaggart. 2005).

Throughout the study, the focus/advisory group had a key role in “respondent validation” (Foster, 1996). Focus group members commented on and contributed to the action research processes, the observations and translations of observational transcripts from Samoan to English, and the findings of the COI research (Podmore, Wendt Samu, Taouma, & Tapusoa, 2005). This contributed to ensuring the findings were not only robust but also meaningful within our Samoan early childhood context.

### **Data Analysis Procedures**

The research design, the analyses, and the findings are all closely intertwined with the principles and strands of *Te Whāriki*, the New Zealand early childhood curriculum (Ministry of Education, 1996). *Te Whāriki* is strongly underpinned by socio-cultural theory. The principles of *Te Whāriki*—empowerment, respectful and responsive relationships, family and community participation, and holistic development—reflect socio-cultural approaches.

The research analyses and theoretical framework are outlined in Figure 3.1. The design of Figure 3.1 reflects the shape of a Samoan *fale* or house.



**Figure 3.1 Research Analyses and Theoretical Framework:  
A “fale shaped” design.**

Further details of the design and analyses are set out in Table 1, linking:

- the research questions;
- the research methods and action research tools;
- data sorting, categorising, and analysis processes; and
- key theoretical concepts.

Table 1 lays out the concepts and theoretical constructs that were used in the analytical interpretation of the data.

Table 1.

**Analysis Framework:  
COI Action Research at the A’oga Fa’a Samoa**

<u>RESEARCH QUESTION</u>	<u>METHODS/ TOOLS</u>	<u>DATA ANALYSIS</u>	<u>THEORETICAL ANALYSES &amp; CONSTRUCTS</u>
<p><b>1. What helps learning and language continuity as children make transitions within and from the A’oga Fa’a Samoa?</b></p> <p><i>(2 action research cycles)</i></p>	<p>Focus group interviews</p> <p>Critical incidents interviews</p> <p>Observations</p> <p>Diary records</p> <p>Language survey</p>	<p>Coding, sorting and categorising</p> <p>Coding across the strands of Te Whāriki</p> <p>“ “ “ “ &amp; reflections</p> <p>numerical data: frequencies &amp; percentages</p>	<p><b>Language continuity</b></p> <p><b>Innovative transition</b></p> <p><b>Ethics</b></p> <p><b>BWECC</b></p> <p><b>Continuity of group</b></p> <p><b>Continuity of teacher</b></p> <p><b>Samoan language continuity</b></p>
<p><b>2. How can the key elements that help language continuity be implemented in practice?</b></p> <p><i>(3rd action research cycle)</i></p>	<p>Focus group</p> <p>Interviews with children</p> <p>Full staff discussion/ Meetings</p>	<p>as above</p> <p>Translation, categorising under research questions (&amp; Te Whāriki strands)</p> <p>Reflections across the strands of Te Whāriki on teacher’s role</p>	<p><b>aiga; &amp; as above</b></p> <p><b>identity, communication tools and artifacts</b></p> <p><b>scaffolding/ co-construction;</b></p> <p><b>community of inquiry; transformation</b></p>

Note: BWECC = the 5 strands of *Te Whāriki*: Belonging, Well-being, Exploration, Communication, and Contribution.

The next chapters focus on the main findings of the research. The findings were analysed and interpreted in the light of key constructs in Table 1 (as in the right-hand column, where the concepts and theoretical constructs are set out in bold and highlighted). There are chapters about findings on: the *aiga* principle; Samoan language and cultural continuity; innovative transition; and community of learners/community of inquiry.