Chapter 5

Personalizing content and processes in co-constructed language planning

"You can't make anyone DO anything if it doesn't match their life values"
(Bussell, 2002)

Introduction

In this chapter, the co-construction story continues from the beginning of the second action research cycle. Documentation of teacher-researcher interactions during school Term One had provided baseline data for decision-making and actions for research cycle two. For the second research cycle we refocused our attention from gathering diagnostic data about students at risk, to co-constructing classroom language development plans for them.

As co-construction began for school Term Two, I began to intentionally interrogate data against the second research question, *Which influential factors shape early childhood teachers' thoughts and pedagogy for students at educational risk?* In this chapter, the narrative details how teachers' input to co-constructed practice shaped the content and processes of our learning. The redefining of the second research question as two subsidiary questions and a further six Analytical Statements, guides this retelling.

By the beginning of school Term Three, pre-requisites and influential factors in effective co-construction were emerging. Here, these features are reshaped as general characteristics of co-construction. I continue to weave data, iterative processes, available theory and constructivist interpretive thinking to describe participants' learning about co-construction. There is an effect of data layering here. Term Two learning directed us to refine and improve co-construction during Term Three. Our

learning about effective co-construction, substantiated here by teacher stories, is summarized as a template of co-construction for future use.

Throughout the second and third action research cycles, particular research attention was given to the importance of teacher input and problem-solving through episodes of teacher-researcher dysfunction. Revisiting data for the writing of this narrative provided further opportunities for comparing data with personal construct and social judgement theory, for theorizing about transitions in teachers' constructs and practice and for decision-making about the selection and reporting of teachers' constructs and classroom stories. Each of these issues is discussed.

Teacher stories from Jacqui, Penny and Toni continue on from Term One data. A fourth teacher, Maree is brought into the narrative to demonstrate how we learnt about reconstruction. Another teacher, Coral, is introduced for this chapter, to add insightful data about teachers' self-perceptions and transitions in constructs and practice.

This chapter builds the story of co-construction towards conflict, and some resolution. We hear of teachers embracing co-construction with the hope that they can better meet the needs of their students at educational risk. My retelling is edged with a memory of responsibility and trust; teachers had shared their personal constructs of educational risk with me, and welcomed me to their classrooms. I recall my optimism as I acknowledged the principles of social judgement theory. I believed that connecting classroom practice to one's life values, constructs and prior experiences would encourage teachers to engage in co-constructed change.

This chapter is more than a retelling of how I invited and supported teachers to influence their own thinking and practice. This is about researchers and teachers accepting and valuing reciprocal contributions to effectively select, design and co-construct language development practices in early childhood classrooms. A central theme emerges here, based on data from all participating teachers, and remaining throughout the narrative. *"Co-construction doesn't just happen."* Facilitators need to value all participants and personalize co-constructive language development planning to the constructs, strengths and needs of individual teachers.

Research questions and analytical statements

Research question two concerns the extent to which early childhood teachers' personal constructs of educational risk and their classroom practice can be shaped through the co-construction of language development plans. Two subsidiary questions were framed:

1. Which aspects of teachers' personal constructs of language-based educational risk can be positively influenced through co-constructive planning?
2. To what extent does the co-construction of classroom language development plans influence early childhood teachers' classroom practice?

These subsidiary questions gave rise to analytical statements that were used to organize and make sense of Term Two and Term Three data. The analytical statements examined in this chapter all relate to the potential of co-constructive language development planning to shape teacher thinking and practice. More specifically, co-constructive processes are thought to facilitate six outcomes.

Co-constructive language development planning can:

- enhance the significance of language components in teachers' personal constructs of educational risk. Analytical Statement 8 (AS8)
- shape the specificity of oral and written language links in teachers' personal constructs of educational risk. Analytical Statement 9 (AS9)
- shape teachers' understandings of oral and written language profiles (OWLD) as part of their personal constructs of educational risk. Analytical Statement 10 (AS10)
- shape teachers' understandings of the benefits of explicit language development practices in response to educational risk. Analytical Statement 11 (AS11)
- facilitate teachers' independent use of explicit language development practices in response to educational risk. Analytical Statement 12 (AS12)
- shape teachers' confidence in selecting and implementing classroom language development practices in response to students at educational risk. Analytical Statement 13 (AS13)

Reflecting on co-construction

During Term One I had explored teachers' personal constructs of (language-based) educational risk. I had used the OWLD1 to ascertain the influence of detailed diagnostic information about children's characteristics of risk, on pedagogy. Simultaneously, I identified occasions when some teachers' classroom language development practices could be supplemented with additional and different explicit language teaching and learning tasks, in response to their students at educational risk (CBRD14/3/00; CBRD21/3/00). Although the OWLD1 had been minimally useful for effecting change in teachers' classroom practice, I hypothesized that the detailed profiles of students' learning strengths and needs could be systematically matched to classroom language development practices through co-constructed planning processes.

Recall that all teachers acknowledged the possible co-occurrence of educational risk and language difficulties but only Penny focused on oral-written language interactions as causative or predictive of educational outcomes. Penny had identified a need to further her understanding of the interaction between oral and written language. She was very receptive to co-constructed language planning opportunities, requesting planning times to do so (for example, T1P22/6/00). This next stage of Penny's story illustrates how the shaping of personal constructs and classroom language development practices facilitated her confident identification and response to students' educational needs.

In Term One, Toni had offered numerous examples of ways that she currently responded to educational risk but referred to her lack of experience teaching in the early childhood years and her perceived need to develop appropriate classroom practices (CBRD18/2/00, CBRD28/2/00, CBRD30/3/00). She invited co-constructed language development opportunities. Jacqui had welcomed co-constructed language planning opportunities with a strong preference for classroom-based early childhood language support (TKJDI48-55). In this chapter we see how Jacqui's personal beliefs continued to shape the goals and schedules of the classroom-based language support program for her students.

From Term One and the selection of diverse teacher stories, to show the array of teachers' personal constructs of educational risk and classroom practice; a commonality in teacher data now emerges. All of the stories shared in this chapter show how and why teachers judged the content and processes of co-construction as "appropriate and acceptable" (or not) for themselves. As suggested by social judgement theory, co-constructive processes can shape teachers' thinking and classroom practice *if* they are considered to be appropriate and acceptable to the participants involved.

Current research (Clark, 1992; Fullan, 1996; Hargreaves & Fullan, 1992; Thiessen, 1992) explains why teachers' perceptions of available teacher support systems are critical when planning and implementing staff development and school change procedures. A school administrator recently referred to the acceptance or rejection of school-based support services for teachers. He said of literacy success in his early childhood classes, "You can't make anyone DO anything if it doesn't match their life values" (Bussell, 2002).

Theoretically, co-constructive planning processes would enable teachers and language specialists to adjust their lenses of personal belief, experience and practice in order to accept, reject or ignore opportunities for change in their thinking or classroom practice. Metaphorically, each lens of personal thought and practice could be better focused, given a deeper depth of field or a wider angle. With adjustment of their lenses, users would better see classroom language development practices as explicit language learning and language teaching opportunities for children at risk. In this study, teachers' personal lenses would determine which co-constructed changes were acceptable and appropriate for use in their classrooms. My personal lens would determine the extent to which co-constructed, explicit language development practices accorded with available child language theory and practice. Furthermore, each personal lens could determine individual contributions to the content and processes of co-construction.

The analogy of the camera lens highlights how co-constructive processes assist two (or more) people to work together to produce "better images" of professional thinking and practice. Co-construction is a way for teachers and researchers first to

share and then to sharpen their views of explicit changes in thinking and/or practice in response to classroom issues. Sharpening one's view by adjusting the focus is analogous to teachers and researchers planning together to identify an issue or consider contributing factors and various practical strategies, prior to actually selecting and implementing explicit language development activities in the classroom. The details of how far and how often the focus needs adjustment, provides an analogy for the potential change in thinking or practice experienced by both teachers and researchers, over time.

Teachers' input to co-constructed language development practices

Term Two and Three data show how our views of educational risk and classroom language development practice changed during the research year. The extent and process of change in thinking and practice was unique to each teacher. It is not appropriate to compare and contrast the strategies used by individual teachers at any point in this action research because strategy use is dependent on so many factors (the strengths and needs of students, class size, physical arrangements of the class, year level of the students, prior experience of the teachers etc.)

Hall and Jones (1976) argue that one cannot correlate teaching competencies with effective teaching because "effective teaching involves different behaviours for different teachers with different kinds of students" (p. 26). My task was not to compare or judge teachers' pedagogy but to engage teachers in the co-construction of classroom practices for students at risk, at each their point of need. Therefore, the following summaries illustrate some of the changes that Jacqui, Penny and Toni made, in the context of their classrooms. Of interest, is the ways that each teacher influenced the co-constructive process to meet her needs within the project school.

During the research year Jacqui broadened her view of the types and purpose of language development activities in her classroom. Although she began Term One committed to the Language Development Project within her classroom (TKJDI48-55, CBRD8/5/00, CBRD16/5/00, CBRD30/5/00) she later requested that explicit language development activities for the students at risk were conducted outside her whole-class teaching time. Although antithetical to my personal view of classroom-

based language support, the change in scheduling for small group language development activities allowed Jacqui to increase her involvement, with me, and with these activities (CBRD20/7/00; CBRD3/8/00; CBRD14/8/00; CBRD28-29/8/00). In turn her understandings of oral language components in educational risk and her explicit teaching strategies were enhanced. Jacqui was increasingly able to include new and more explicit language teaching and learning strategies into her whole class program by first withdrawing and focusing on the children at risk (SR4/9/00). Jacqui's path to enhanced teacher thinking and classroom practice was shaped by her insight into the way that competing whole class responsibilities limited her practical access to new language development practices being implemented in her classroom.

In contrast, Penny became concerned during Term Two about her students' responses to planned small group, oral and written language activities. Penny noted that her young students did not focus on small group activities and that they needed constant adult supervision to remain on task (CBRD6/6/00, T1P22/6/00). Earlier in the year, Penny's personal theory of language-based educational risk had prompted her to plan to extend her repertoire of speech and oral language activities in her classroom. She had intended to involve parents in daily language tasks, as well as, in small group speech-language activities for children at educational risk (CBRD16/3/00). Although confident in her theory and planning, Penny became concerned that fewer parents than anticipated were regularly involved in classroom language activities (T1PDI173).

Penny sought opinions from teaching peers (and myself) about ways to engage her students in particular language activities and ways to involve parents in meetings and classroom language development plans (CBRD27/3/00). She expressed reduced confidence in her language program and a sense of "feeling lost" about how to modify her planned program (T1PDI186). Penny initiated planning review meetings at which she would invite my feedback on her classroom language development practices (T1P22/6/00). She also reflected on the mismatch between her expectations of student behaviour and the actual responses of particular students to planned classroom language activities (T1PDI190-200).

One example comes from Penny's dissatisfaction with her students' classroom listening skills (T1PDI168-170). After discussion, she opted to co-construct with me, five-weeks of "explicit listening activities" for the whole class (Appendix M). However, after three weeks of co-planning and co-teaching Penny was confident and able to continue these activities without my direct involvement. She identified increments in her confidence with these new explicit teaching strategies. She opted to continue the listening skills focus independently (CBRD14/9/00) and related positive student outcomes to other teachers. Throughout the project year, Penny initiated changes in the schedule and purpose of our co-constructed planning as she reflected on her need for changes in thinking or practice (CBRD6/6/00; CBRD15/8/00; CBRD13/8/00). She expected to have input into the content, process and purpose of co-construction.

Toni's path to change in teacher thinking and classroom practice began with clarification of our respective roles in co-construction. Early in Term Two Toni invited and accepted any explicit classroom language development activities that I chose to implement in her class (CBRD2/5/00). I interpreted Toni's expectations of my role as akin to a visiting language expert and unlikely to shape significant change in her, thinking or practice (CBRD4/5/00). I was interested in Toni's reflection on classroom language development practices as unlikely to effect improved educational outcomes for children at risk, over one school year (T2TDI179). She regarded any increase in the number of adults available to the children in the room as a positive influence and sought ideas about appropriate classroom practices from other staff, and from me (T2TDI113-116).

Toni continued to report her use of numerous classroom strategies in response to students' educational risk. She asked others' opinions of her classroom practice on a regular basis but did not seem to regard co-construction as an opportunity to enhance her thinking or to develop additional explicit classroom language development practices (T2TDI9/5/00). However, by working in parallel with whole class activities to engage small groups of students in oral and written language learning activities, I modelled alternative classroom practices for explicit language teaching and learning (CBRD16/5/00). My model of explicit language teaching, including ways to encourage children's awareness of language-learning strategies, could be accepted,

rejected or ignored by Toni. Since she readily accepted in-class assistance by any adults, my contribution created another opportunity for her to comment on, question or discuss the potential for explicit language teaching-learning opportunities, in her classroom (CBRD9/5/00).

Rather than co-constructing Toni's language development program on a daily or weekly basis (as with other teachers) our alternative parallel teaching continued through Terms Two and Three. After every classroom contact I provided Toni with a brief written summary of the explicit teaching practices used and the students' responses to them. When possible, non-teaching times adjacent to my sharing of Toni's class were used to discuss the thinking and practices I modelled (CBRD16/5/00). Toni's acceptance of small group explicit language development activities in her classroom facilitated our sharing of language-teaching experiences (CBRD31/7/00). In this way, we shared incidental discussions about students at educational risk and my selection and implementation of explicit language development activities for them. Toni clarified which language practices she had noted and asked questions about them (CBRD16/5/00; SR4/9/00).

During school Terms Two and Three, I interpreted Toni's acceptance of our parallel teaching of small groups of children as her practical way to gain new ideas about early childhood language activities (SR4/9/00). On several occasions, Toni requested a prescriptive list of classroom language activities to use. These requests were interpreted as Toni's perception of, and expectation to use, "correct" strategies rather than to select and implement teaching strategies according to the strengths and needs of individual children (CBRD1/8/00). I was concerned that a prescriptive list of strategies might reduce the possibility of Toni and I reviewing our personal constructs and co-constructing classroom practice.

Unlike some other teachers, Toni did not "read, use or understand" the OWLD (CBRD26/6/00). The format may have been inappropriate for her needs. Toni did not regularly refer to written summaries of activities and strategies that I used in her class or to the Summary of Sessions prepared for Kindergarten to Year 2 classes, at the end of school Terms Two and Three (see Appendix E.) To this point I had discussed particular classroom activities with Toni (CBRD23/5/00) but had been

unsuccessful in my attempts to engage her in discussions about the reasons for particular language development practices (CBRD31/7/00). Up to this point, Toni had observed and commented on modelled classroom language development practices but I had not observed her use of “new” strategies (CBRD25/5/00). Initially, Toni did not respond to co-construction as an opportunity to shape her personal constructs and classroom practice, as other teachers had. (For example, Jacqui and Penny were requesting, using and accepting new ideas.)

However, late in school Term Three Toni began to evidence changes in her personal constructs and practices for students at educational risk. The Staff Review Workshop (SR4/9/00) seemed to be a catalyst for change (or new confidence) for Toni. At this workshop, conducted as a data triangulation session, early childhood teachers reflected and commented on their greater understandings and use of classroom language development practices as an outcome of the Language Development Project. Toni identified nine changes to her thinking and practice as outcomes of the LDP (ibid). It seemed that discussion with her peers encouraged Toni’s reflection and recognition of significant changes in her own practice. Furthermore, upon hearing that her peers had co-constructed classroom teaching with me, Toni appeared more receptive to co-construction herself (CBRD18/9/00).

As indicated by recent innovations on peer coaching (McDowall State School, 2002) Toni may have benefited from joining planning sessions with her teaching peers or by participating in a similar workshop earlier in the research year. Eventually, Toni’s teaching peers influenced her engagement in co-construction. They described the benefits of joint planning and the positive learning outcomes of explicit language development practices (SR4/9/00). Toni recognized her opportunities for professional development and began to see our co-construction as acceptable, appropriate and feasible. Of course, the time that Toni and I had taught together, albeit in parallel rather than co-constructively, are likely to have encouraged her acceptance of co-construction in her classroom. (Our sharing is documented in our working notes, daily lesson plans and incidental correspondence during 2000).

During Term Three, Toni gradually implemented some new and explicit classroom language development practices (such as the teaching of oral retell from shared

written texts) that she judged to be of value to her students (CBRD24/8/00). Her assurance was that she would soon know if they worked for her. So, despite three school terms in which I had not engaged Toni in co-constructive language development planning, she showed significant change in her thinking and classroom practice by the end of the research year. (These outcomes became clearer during later a Staff Professional Development session, 21/11/00; and through Toni's final interview, T2T6/12/00.)

These observations of Jacqui, Penny, Toni suggest that teachers' personal constructs of educational risk, as well as, their confidence and perceived expertise to respond to risk, continued to shape classroom practice through the research year. Teachers did not accept and apply explicit language development practices without reflection, modification or input to the language planning process. Most teachers expected to understand and make choices about relationships between characteristics of educational risk and classroom practice. Teachers' data illustrated how they ensured that co-constructive language development planning was acceptable and appropriate to their personal beliefs, experiences and practice. As the examples show, individual teachers had particular ways of directing my facilitation of changes in their thinking and practice.

Characteristics of co-construction

At the close of school Term Two, my reflections and teachers' feedback indicated several factors were influential in the effective co-construction of classroom language development practices:

- teachers' opportunity to influence the content and process of co-construction,
- personalized processes for facilitating transitions in thinking and practice, and
- teachers' self-perception of their strengths and support needs.

I interpreted two pre-requisites to the effective co-construction of language development practices for children with language-based educational risk in early childhood classrooms. They were:

1. Participants sharing their unique ways of seeing language-based educational risk and classroom language development practices.

2. Regard for what is acceptable and appropriate to individual teachers who "see" their educational contexts through the lens of personal belief, experience and practice.

As individual teachers enthusiastically engaged in co-constructed assessment, planning and teaching, or cautiously participated in joint language planning during school Terms Two and Three, each somehow facilitated co-construction processes. At every stage, I was aware that teachers could accept, reject or remain neutral to the co-construction of classroom language development planning. As we became more attuned to sharing our reflections, observations, language plans and teaching; I understood why each teacher presented different opportunities for co-constructive language planning (CBRD31/8/00; CBRD13/9/00; CBRD18/9/00). I was learning how teachers judged when co-construction processes were appropriate, acceptable and feasible. I needed to refer to individual teacher's ways of seeing language-based educational risk and early childhood pedagogy, their previous beliefs and experiences, their judgements of teacher support processes and their individual contribution to how and why co-construction might work for our partnership (ibid).

Collectively, teacher stories suggested general features of co-construction that could facilitate change in participants' thinking and classroom practice. All of these features could be recognised in my interactions with teachers like Penny and Jacqui, with whom I was regularly co-constructing language teaching and observing student outcomes. Other teachers, such as Toni, were selectively engaged in co-constructive processes. As a way of tracking developing processes half way through this action research, I documented the opportunities that co-construction provided to research participants. Together we had attempted to:

- identify personal theories,
- reflect on the adequacy of personal theories for the current situation,
- reflect on our repertoire of strategies to respond to the situation,
- identify gaps in our current repertoire of strategies,
- consider alternative theories,
- consider alternative strategies,
- relate alternative theories and strategies to prior experiences and beliefs,

- accept, reject or ignore alternative thinking / practice for the current situation,
- negotiate those aspects of alternative thinking / practice that might be acceptable and appropriate in the current situation,
- co-construct theory and practice for the given situation,
- select and implement negotiated practices for given situations, and
- share, review, select and interpret constructs and practices for future use.

Thus far, teacher stories have been selected to illustrate the potential of co-construction for changing teacher thinking and practice, to indicate developing features of co-constructive processes, and to highlight the importance of teachers' input to facilitated change processes. However, I needed to learn more about how to better engage teachers, like Toni, who had remained on the "periphery of co-construction" after two school terms of shared action research. I needed to understand how to facilitate transitions in thinking and practice with teachers who requested ideas from myself (and others) but who were seemingly hesitant to adopt practical changes. My research focus in school Term Three was to further refine and improve co-construction processes and outcomes with participant teachers.

Furthermore, I needed to test my developing interpretations about co-construction processes and outcomes with participating teachers. I needed to collate and analyse further teacher data, develop further review processes, and monitor further co-constructions with teachers. I sought to personalize co-construction *with* each participant teacher, to facilitate the best teaching and learning outcomes for their students.

Dysfunction and reconstruction

Another teacher, Maree, joined this study for Terms Three and Four in 2000. Her story added to my understanding about how individuals could direct the co-constructive process. Maree's story explains her sense of obligation to co-operate with an existing program and my intent to continue the Language Development Project in an acceptable, appropriate and feasible way in Maree's classroom. Most

importantly, Maree's story illustrates why our shared intent to achieve positive teaching and learning outcomes did not guarantee effective co-construction.

Maree and I had worked together prior to this study. As a consequence of thinking that I knew Maree's constructs and practice (and that she knew mine) I underestimated the importance of re-establishing a positive working relationship and clarifying constructs for our new working context. The eventual dysfunction and need for reconstruction in Maree's story, suggests that co-constructed thinking and the consequent classroom language development practices are not transferable. There is clear need for each participant to input constructs, decisions and practices to co-construct language development plans appropriate and acceptable to that partnership.

When Maree joined the Language Development Project in the second semester, particular routines and practices, established with the previous teacher, Peta, conflicted with Maree's constructs and her preferred pedagogy. Maree experienced conflict between her intent "to continue things as they were going" (TPMDI3) and her perception that "things weren't actually working out" (TPMDI4). Maree reported, "I went back in there trying to keep things as they were so as not to disrupt the children's routine but there was some things that I couldn't work with so I had to change a few things" (TPMDI24).

Maree and I took some time to identify why we weren't working co-constructively, despite having agree to do so. Gradually, Maree clarified differences between her constructs and practices of early childhood language development and those of the established routines (CBRD26/7/00). Having discussed aspects of the established classroom routine that Maree found unacceptable, we were able to reconstruct classroom language development planning (CBRD3/8/00). One example comes from pre-primary news-telling.

Peta and I had established a two-group, two-teacher interactive format for news telling. This arrangement developed in response to Peta's request for planning, demonstration and practise of oral language strategies for the whole class at news time (CBRD2/5/00). The use of two groups created an opportunity for each teacher to trial planned strategies, to implement particular strategies for selected children,

and for children to purposefully rehearse their news with one teacher before presenting it to the second teacher. Furthermore, the two-group format allowed us to begin as a whole class, to demonstrate and observe planned language development strategies, and then to work in smaller groups to provide more talking turns for each child. The two-group format provided both Peta and myself the opportunity to analyse student outcomes against variations in our teaching methods if necessary.

Maree's training, level of confidence and perceived expertise (CBRD13/9/00) supported her preference for a whole class, circle news format. I interpreted Maree's comments about her need for change, as follows. Maree believed she should continue with the language development program co-constructed by Peta and myself, despite her need for change. I had begun the partnership with Maree by sharing documentation of the planning, implementation and interpretations of student learning outcomes that I had planned with Peta. Maree felt that she was unable to initiate changes to the program in her classroom despite the fact that I had invited her input, encouraged preliminary discussions, and invited her response to established classroom practices as we continued them (CBRD26/7/00).

Both Maree and I initiated some changes to the classroom program during Term Three. Maree suggested alternative times and locations for small group language development activities within the early childhood centre. I sought Maree's opinion about the number of parents involved in small group language activities and the impact of their presence on Maree and the rest of her class. My aim was to continuously seek and value Maree's input (CBRD13/9/00).

Perhaps Maree's suggested minor changes (such as timetable details) were early indicators of her interest in greater input and further modification of the established program (CBRD14/9/00). Another interpretation is that Maree initiated changes to aspects of the established program that were unacceptable to her view of classroom learning. By inviting and responding to each other's opinions we gradually acknowledged our respective strengths, needs and preferences. My belief was that recognition of individual strengths, needs and preferences could encourage an attitude of co-construction and our renegotiation of established thinking and practice, as necessary (CBRD13/9/00).

Before Maree recognized the importance of her personal constructs and opinions to co-construction, she independently made changes to return her classroom to an appropriate and acceptable way of working, for herself (TPMDI28). Maree's discontent effectively stimulated further review of the Language Development Project in her classroom. We resolved that previous ways of thinking about and facilitating oral and written language development in this early childhood class were not productive for our partnership. We could not reconstruct a climate for shared classroom practice until we understood which practices were unacceptable to our partnership, and why. We also needed to understand the extent of our differences in personal constructs of educational risk and early childhood language development (CBRD13-14/9/00) as a shared focus for dialogue. Then we could decide whether or not to co-construct change, and how (TPMDI15-16).

On reflection, I recognized that Peta and I had co-constructed the language program over two school terms to ensure a match between our shared constructs and selected practices. Maree's initial attempt to accept classroom practices that actually conflicted with her personal constructs, disguised our need to further negotiate our thinking about early childhood language development and our roles in planning classroom language activities (TPMDI2-5, TPMDI24). We needed to understand what wasn't working before we could co-construct an alternative.

The stories of Maree, Penny, Jacqui and Toni demonstrate the importance and value of all participants in co-constructive processes. My dysfunctional early relationship with Maree was useful as a checkpoint for future, effective co-constructions. Maree was the only teacher who had to choose to accept (or reject) a classroom language plan co-constructed by others (TPMDI14). I misinterpreted her initial acceptance of these language development practices as confirmation that she also accepted the child language constructs influencing these practices. In the end, Maree's story highlighted the importance of re-constructing shared thinking and classroom language development practices with each teacher, in each new context, despite apparent acceptance.

Maree's story reiterates Bussell's claim, "You can't make anyone DO anything if it doesn't match their life values" (2002). Maree's attempt to accept the constructs and

practices of others was eventually challenged by her own constructs, prior practices and values. Maree influenced the theory and practice of co-construction by making this clear to me. Her data contribute to understandings about how changes in teacher thinking and practice "really come about" (TPMDI14). Maree greatly assisted my task of exploring how each teacher thinks, feels and acts in response to co-construction opportunities. The experiences of working with Maree, greatly enhanced my understanding of co-construction processes.

As stated by Wadsworth (1997):

> other people see things according to *their* interests and values… It's not a matter, at this stage, of saying what is of most importance or who is right or wrong, but of being open to (and documenting) all these ways of seeing the world (p. 11).

Recent contact with language specialists and specialist teachers suggests that although many of them readily accept Bussell's (2002) comment about the importance of values and constructs, the development of positive working relationships between language specialists and classroom teachers can be problematic. Some language specialists report a neutral or hostile response from some teachers (Bochenek, 2002; 2002, October). Simultaneously, teachers report that particular language specialists expect them to implement recommendations they regard as unacceptable (T2TDI292). In this study, teacher stories clarify the importance of regularly inviting reciprocal input to co-construction.

In Chapters 6 and 7, I discuss the potential of co-construction as a defensible and alternative way to effect change in teacher and language specialist thinking and practice. My belief is that teachers and language specialist teachers could benefit from professional support to understand the importance of personal constructs, the processes facilitating transition in thinking and practice, and ways to build co-constructive relationships.

Personalizing co-construction

The importance of understanding teachers' ways of seeing language-based educational risk cannot be over emphasized. So far, teacher stories have illustrated some early childhood teachers' views of language-based educational risk and their responses to students at risk in their classrooms. These stories have explored diversity in teachers' thinking about language-based educational risk and some ways in which teachers have influenced the co-constructive process. I have discussed how teachers like Jacqui, Penny, Toni and Maree shaped the development and my interpretation of co-construction theory and practice. They taught me that co-constructed practice is a continuous and reciprocal process of facilitating transitions in participants' thinking and practice

I returned to teacher data to consider the notion of transitions in participants' thinking and practice and what this means for personalizing co-construction. Initially, I attempted to analyse the influence of co-constructive language planning using Kelly's definitions of links between emotional and cognitive states (Bannister & Fransella, 1974). Kelly described construct systems as encompassing both the cognitive and emotional domains and being "in *transitional* states" (p. 35). I data-analysed teachers' transcripts and identified anxiety, hostility, guilt, threat, fear and aggression as possible states of awareness from which co-construction processes provoked change in teachers' personal constructs.

For example, Bannister and Fransella (1974) interpret Kelly's definition of "anxiety" as a person's response to their partial construing of events around them, an awareness that "*unknown* aspects" of an experience challenge their current constructs (p. 35). For example, I used this definition to analyse Jacqui's data and interpret her as one teacher in this study for whom change in thinking and practice appeared to be prompted by anxiety about her need to develop additional language expertise (TKJDI51-55). More recently, I revisited teachers' data and interpreted transitions in teachers' thinking and practice with reference to other literature. Many authors clarify the need to personalize teacher development. These ideas, documented since the 1970s, are in accord with my current learning about co-construction.

Hall and Jones (1976) distinguish between personalization and individualization in teacher education. As in co-construction, Hall and Jones regard individualization as self-paced learning and the identification and sequencing of teaching and learning at individuals' point of need. By contrast, personalization supports one to learn about his or her personal needs, potential and limitations. The general features of co-construction listed above are intended to encourage one's reflection on current theories and strategies, then to identify and select co-constructed learning. In this sense, the process of co-construction is more important than the specific language content negotiated, for the individuals concerned.

Another aspect of Hall and Jones' (1976) work relevant to co-construction, is the idea that the sharing of concerns, as when exchanging personal constructs, assists the open communication between teaching partners and facilitates decision-making about issues arising. Although they emphasize the importance of teachers recognizing their own concerns, Hall and Jones believe that there exists a predictable sequence of concerns for many teachers. This proposed sequence begins with concerns about self, progresses to concerns about their teaching, and then to concerns about whether or not students are learning. This notion of sequenced concerns could assist co-constructive partners to address appropriate issues in the future.

Joyce and Showers (1988) state that knowledge about what works in staff development requires much study, practice and innovation in education. Their recommendations have much in common with the developing theory and practice of co-construction. For example, they believe that teachers' training and the extensive practice of new learning "have to reside comfortably in the school setting and be collaborative activities" (p. 17). These authors recognize that new teaching strategies can cause dislocation and discomfort for teachers. Hence, "shared understanding about both the content and process are necessary for collective action to occur" (p. 25). I have discussed how the shared knowledge of peer involvement in co-construction processes encouraged Toni's active response to change opportunities.

Joyce and Showers (1988) suggest that humans tend to develop patterns of learning over time. They categorize learner types to explain behaviour and plan staff development in schools, an idea that could help to personalize future co-construction.

The retrospective identification of learner types in this study assisted my interpretation of teachers' engagement in co-construction. According to Joyce and Showers' (1988) classification, teachers Penny and Jacqui are "gourmet omnivores" who "strive to learn all they can about their craft and give and take energy from their peers" (p. 134-135). Most of the other participant teachers (Toni, Suze, Peta, Karen, Kate, Coral and Sheryl) are "passive consumers" whose activities depend greatly on who they are with (p. 135). As some of their stories show, passive consumers can be drawn into activities generated by colleagues, as Toni gradually was by personalized co-construction processes. The third category is the "reticent consumer" (p. 136). The data I have of Maree suggests that she may be described in this way. However, this is a cautious interpretation given Maree's involvement for one of the two action research semesters, and her return to an established classroom program.

Another similarity between the work of Joyce and Showers (1988) and this research relates to the use of conceptual systems theory to understand how people organize their information about the world. These authors describe "substantial correlation between conceptual development and the states of growth" of teachers and administrators (p. 137). My work examines teachers' personal constructs, classroom practice and individual responses to co-construction, to understand influential factors in this type of teacher development. Like Joyce and Showers, I use the notion of conceptual flexibility to analyse the variety in teaching styles, teachers' response to opportunities to increase their repertoire of practice, and teachers' understanding of, and planning for, individual students.

In the current study, the term co-construction is intended to reflect the essential input of all teaching participants in classroom planning and teaching. As such, personalizing co-construction is a metacognitive process. I attempted "to make sense out of the ways in which (teachers) make sense out of their worlds" (Bannister & Fransella, 1974, p. 42). As participants shared their understandings of personal constructs and influenced co-construction content and processes, I worked to translate teachers' data about themselves, their students at risk, and classroom practice, into co-construction theory.

Construct theory provided a way of understanding teachers' responses to change in classroom practice. The following stories substantiate how my insights into teachers' ways of seeing their experiences, guided my input to our co-construction of classroom language development plans.

Continuing the stories of Maree and Penny provides contrastive anecdotes to the story of co-construction. Both of these teachers influenced the co-construction process, in different ways. In addition, the story of Coral is told here to represent another way to personalizing co-construction with teachers. Coral, like Toni, agreed to co-construct practice but did not initially respond to opportunities to change her thinking or practice. I needed to learn how to personalize and support change processes.

From data to the theory of co-construction

Bannister and Fransella (1974) explain that individuals do not always act as they predict or expect to. People sometimes adopt rule-ridden behaviour as an alternative to acting in ways that are unpredictable or disconcerting for them. During the Language Development Project, I interpreted Coral's initial responses to co-construction opportunities in this way. Coral's voluntary participation in the study was interpreted as her acceptance of the potential benefits of co-construction. Yet from the outset, Coral specified routines for my participation in her classroom (CBRD3/4/00) that suggested her discomfort with this research.

During school Term One, Coral described herself as 'non-analytical' (CBRD29/2/00). She described her method of classroom language planning as working "off the cuff" and indicated some concern that she didn't "reflect on teaching-learning strategies" (ibid). This summary was supported by observations of Coral's teaching routines. For example, Coral black-boarded spelling lists of ten words on Mondays and asked the children to say the word and spell each word three times in chorus on Monday through to Thursday. On Friday the class completed a test on the ten words. The following week, new words were black-boarded. No variation on this spelling strategy was reported or observed during the researcher's participant observation time in Coral's classroom.

Coral also discussed her dislike of any other adults in her classroom. She identified her discomfort with parent helpers in her classroom, explaining that she did not encourage parents to participate (T2C29/2/00). Despite her self-perception as non-reflective, Coral gave four reasons to support her decision to limit parent involvement in her classroom. She was concerned about parents breaching confidentiality with regard to individual students, she suggested that parents did not follow up classroom activities at home if asked, they did not have the skills necessary to support classroom tasks and, of greatest concern to Coral, was the opportunity that classroom participation offered parents to observe and criticize her pedagogy (ibid).

Coral developed several rules to begin our interactions for the Language Development Project. She seemed to need established procedures that were predictable and familiar, rather than confronting, unpredictable or disconcerting. She specified my routine for entering her classroom: "Don't sit with the children or greet them. It's too disruptive" (CBRD3/4/00). I interpreted Coral's need for rule-based interaction as important to her. I needed to understand and accept Coral's self-disclosure an indication of how she could be supported through change over time (CBRD2/5/00).

During Term Two, Coral's input to co-constructive planning discussions began to change. As she became familiar with classroom-based language support and co-constructive language planning opportunities, Coral reduced her defining of my behaviour in her class and began to comment on my participant researcher role. For example, she observed my use of oral language rehearsal strategies as a precursor to a small group written language activity for students at risk. Coral agreed that these students "need the oral before they write" but acknowledged that she did not monitor students routinely (CBRD2/5/00). She reflected, "I don't think about it. I don't know language like you do" (ibid). I understood that Coral needed to have opportunity to observe my classroom practice in parallel to her established classroom routines. In this way, she could observe and comment on my planning and implementation of strategies for students at risk, when she felt comfortable to do so.

Throughout this study, Coral was uncomfortable when asked to comment on her observations of our shared classroom experiences. Therefore, I used her classroom

routines as foundations from which change could be co-constructed. For example, knowing that Coral did not document her lesson plans ahead of time, I implemented explicit teaching and learning strategies, matched to the needs of the students at risk in a small group, within her spontaneous lesson structures (CBRD2/5/00; CBRD11/5/00; CBRD18/5/00). I did not ask to see Coral's documentation to assist my preparation as I did with some other teachers. In this way Coral's classroom routines, such as the use of one text by the whole class, could be used as a starting point for demonstrating change (CBRD11/5/00, CBRD29/5/00). I did not make value judgments to Coral, about her current pedagogy (CBRD26/6/00).

By Term Three, Coral was apparently more comfortable with the research project in her class (CBRD14/8/00; CBRD18/9/00). She spontaneously described changes in her thinking and practice specific to classroom-based educational risk (CBRD31/7/00; CBRD). For example, she asked me about a particular student at risk, prefacing her question with a description of her analysis of the child's reading difficulty. By accepting her description of the child's unusual oral movements, we moved to negotiating my assessment of the child's oral language and literacy behaviours (CBRD31/7/00). Consequently, Coral and I co-constructed a Term Three Individual Education Plan for the child, sharing our observations and theories about his needs. This was a marked contrast to Coral's Term One discomfort when asked to nominate students she considered to be at educational risk. She had discussed her feeling of being unable to do so.

The stories of Maree and Penny contribute to further understandings of transitions in personal constructs and interactive processes in co-construction. Recall that Maree sought to implement her preferred and familiar constructs and classroom practices, rather than continue the language development practices established by Peta and myself in her classroom. It is important to acknowledge that this response to the established language development practices can be interpreted in several ways. The differences between the established practices, and Maree's preferences, seemed to indicate conflict between Maree's familiar constructs and an alternative way of teaching in her classroom. However, Maree's preferences could also reflect her judgement that she was not comfortable teaching in this way, or that she did not see merit in the ideas being used. Co-construction is a way to resolve such issues.

My interpretation is that Maree attempted to make sense of the Language Development Project in her classroom by sampling and rejecting components of it. For example, near the end of Term Three, Maree requested that I no longer include parents in structured language development activities in the classroom (CBRD14/9/00). I accepted that the parent involvement could not continue in Maree's classroom when she had requested otherwise. The parents involved were very keen to continue working on language development tasks with their children and reluctantly accepted the suggestion to move to another classroom (ibid).

However, changes to Maree's classroom language development practices, initiated by her, became critical to our later co-construction of language plans for students at educational risk in her classroom. My acceptance of Maree's requests was followed by her attendance at a couple of the rescheduled parent-child language groups. Maree reflected, "I wouldn't want parents involved." (CBRD7/12/00). However, she acknowledged that the parent group was "really useful" and she was surprised by the detail of the work and parent insights into their children's learning (ibid). At other times in the last school term, Maree and I reflected on particular classroom practices and began to co-construct our ideas. One important example was during a writing activity, when Maree asked my opinion about the sound-letter processes used (CBRD29/11/00). Perhaps Maree just wanted to be the one to ask.

Maree's story reminds me of the need to understand "the person in psychology" (Bannister & Fransella, 1974, p. 44). The notion comes from Kanshitaki who states, "Speech is not what one should desire to understand. One should know the speaker… The deed is not what one should desire to understand. One should know the doer" (ibid). This is an important point for constructivist interpretive research. Teachers know how they want to teach in their classrooms. They also know whether or not they are ready to co-construct practice with others. My task was to facilitate opportunities for co-construction in ways that valued all participants.

Constructivist interpretive research relies on persistent diligence in the interpretation of teachers' constructs, their teaching, and change as an outcome of action research. Since Maree and I held significantly different constructs of the language teaching-learning-assessment cycle in early childhood classrooms, her acceptance of

established practice and our co-construction of classroom language development plans were challenged. My attempt to understand Maree's constructs and to work co-constructively with her, is an example of the need to repeat data analysis, consider context, use available theory and verify my interpretations through further discussion with her. My final interpretations of our co-constructive partnership were gleaned from spoken data, observations and cumulative understandings of Maree as a person and as a teacher. Working with Maree was another opportunity to learn about ways to enhance and improve the practice of co-construction and to consider co-construction theory.

The final anecdote for this chapter is from Penny. According to Joyce and Showers (1988) categorization, Penny was a gourmet omnivore teacher who welcomed the new as a means to elaborate and extend current constructs. She reflected on her classroom organization, her teaching strategies and evidence of children's learning to deal with perceived problems proactively. Penny selected issues and made active choices about ways to elaborate her thinking and classroom practice. She sought professional development opportunities through co-constructive language planning.

For example, when Penny was unsure about the structure and balance of her classroom language program, she initiated a review-planning session with me. Penny regularly asked, "Am I doing OK?" (CBRD13/6/00). She invited constructive criticism from colleagues with whom she believed she shared common constructs of early childhood education. She engaged with opportunities to change her teaching and her students' learning, as required (T1P22/6/00).

The earlier story of Penny's choice to teach listening skills to her whole class illustrates how she reflected on a need for change, considered several possibilities and settled on a co-constructed listening program. Penny sought to recognize theory and practice acceptable to her current constructs of her classroom. She did not want "to be told what to do." She wanted to be asked "what she wanted to do" (TIPDI232). She did not reject new ways of seeing language-based educational risk, but sought to understand them. Her active participation in the co-construction of the whole class listening program was typical of how she reviewed her current constructs, extended her thinking and tried new ways of teaching (see Appendix M).

Penny contrasted her experience of co-constructive language planning with the isolation she felt as a graduate teacher in the previous year. She recalls:

> When I came here I played around for the first few weeks getting to know the kids and things like that and after that I just went, 'Far out! Nobody's helping me. I don't even know where I'm meant to be.' I was lost for a while (TIPDI219).

Early in the research year, Penny recognized her need for further direction. She self-evaluated her language planning prior to requesting that we work together more. Her words were:

> There's no consistency. I have problems. I have programs. None of them work. I've tried at least twenty. Nothing works… Within a week you should see some response and there won't be any. And I keep on going and that's why I find it's really tough (TIPDI186).

Penny often self evaluated her learning after we had planned and implemented classroom language development activities together. For example, after planning and using phonological awareness activities as part of the whole class mat session, Penny concluded, "I can do that, I don't need further help." (CBRD18/5/00).

These anecdotes confirm the positive outcomes of Penny's active learning via co-constructive language planning. Her comments and my various perceptions of teachers' self-confidence as they implemented new, explicit language practices, prompted my reflection on connections between teachers' self-perception and experiences of co-construction.

Self-perception and co-construction

Joyce and Showers (1988) review the work of Maslow (1962) and Rogers (1961) to link teachers' concepts of self to professional development opportunities. They recommend that insights into teachers' self-perceptions can assist the design of appropriate content and processes for teacher development programs and "help us to

understand why people respond as they do" to (p. 139). Bannister and Fransella (1974) related personal construct theory to social constructivist learning. They explain, "our picture of our own individuality is built up by our assessment of others' pictures of us"; that individuals use socially constructed self-evaluations to verify the personal constructs they develop of themselves (p. 42).

During the Language Development Project, my intention was to affirm teachers' positive self-concepts as they recognized and responded to the strengths and needs of students at educational risk in their classrooms. Another intention was to affirm changes in teachers' thinking and pedagogy as positive outcomes of co-construction.

However, collating and analysing data on teachers' self-concepts was a complex task, as an anecdote from Coral demonstrates. Coral's self-concept was built on the view that other adults would "watch and criticize her" (CBRD29/2/00). She had not experienced a confirming picture of herself as built by others. During the project year, I sought to rebalance Coral's self-evaluation by commenting positively on shared classroom incidents. For example Coral's spelling routines were used to discuss positive spelling outcomes for selected students (CBRD28/8/00). Questions were then posed about how other students' needs might be met by Coral and myself working together. In this way, Coral's self-concept could be supported while changes in teacher thinking and practice were provoked. The sharing of classroom experiences with Coral was essential to understanding how best to support her professional growth. Coral needed a positive experience of an adult in her room to encourage her acceptance of opportunities for co-construction (SR4/9/00).

The importance of teachers' self-concepts for reflecting on personal constructs was apparent throughout this project. Although every teacher offered a personal theory of educational risk during initial interviews, most teachers needed some assurance that I was interested in their personal understandings of educational risk and that all constructs would be valued (rather than judged). My interpretation was that most teachers lacked confidence in the importance of their personal theories of language-based educational risk to out co-constructions. Some teachers, such as Toni, seemed unaware of their personal theories until they were invited to share them (CBRD18/2/00; T2T28/2/00). In early data transcripts, Toni's personal theories were

characterized by attention to particular children, frequent references to what she didn't know and regular invitations for me to provide definitive information (T2TDI4-40).

Penny's reputation amongst her colleagues as the most capable and confident teacher in this study impacted on other teachers in two ways. Those who identified with Penny were encouraged to see their potential. Suze, who was a recent graduate with similar training and a comparable work history, expected to develop as Penny had (CBRD14/8/00; CBRD12/9/00). For other teachers like Coral, Penny's example possibly "threatened her major beliefs about the nature of (her) personal, social and practical situation" (Bannister & Fransella, 1974, p. 37). For example, Coral may have perceived Penny's confident discussion of students during a teacher workshop as unattainable (CBRD9/00). Perceiving herself as "non-analytical" (CBRD2/5/00), Coral is likely to have rejected Penny's student analysis as conflicting with her own experiences of teaching.

Studies of perception and self-concept acknowledge that different people construe the same information in many different ways. Hansford (1988) reviewed self-appraisal as an outcome of diverse day-to-day interactions and the roles played with others. He regards "teaching as a role that must be learned" (p. 57) and self-appraisal a way to assist beginning teachers to meet the needs of the situation and the expectations of others. He also suggests that the complexity and ambiguity of information in classrooms compounds the processes of selection, organization and interpretation for teachers who review constructs as they teach.

Teacher data indicate that perceptions of self can influence individual responses to co-construction. Personal construct theory posits that both cognitive and emotional experiences contribute to the formation and transition of personal constructs (Bannister & Fransella, 1974). I regard co-construction as a meta-discipline, complicated by participants' perceptions of self, emotional and cognitive factors in construct transition, and the interaction of two (or more) individual worldviews.

The co-construction template

Teacher stories specify outcomes of co-constructive language planning for individual teachers in early childhood classrooms. I have discussed how changes in teachers' personal theories of educational risk can be linked to their participation in co-constructive language planning during the year. After analysis of term two and three data, the following template for the co-construction of language development practices in early childhood classes, adds detail to the general process of co-construction outlined earlier.

This template is proposed as a summary of the theory and practice of co-construction evidenced through this action research project and detailed in teacher stories. It functions as concise documentation of prolonged and extensive data collection, a constructivist interpretative outcome of participatory action research.

Theoretically, the co-construction of language development plans provided each teacher with the opportunity to:

- identify personal theories of educational risk and the teaching and learning of language in early childhood classrooms,
- reflect on the adequacy of their personal theories about language-based educational risk for their class of students,
- reflect on their repertoire of language teaching and learning strategies with which to respond to perceived educational risk in their students,
- identify gaps in their current repertoire of oral and written language teaching-learning strategies for the students they were teaching,
- consider alternative theories of language-based educational risk to explain what they knew or questioned about their students,
- consider alternative language teaching-learning strategies with which to respond to the perceived strengths and needs of their students,
- relate alternative theories and strategies about language teaching–learning to prior experiences and beliefs in order to reconstruct their understandings for future teaching-learning possibilities,

- accept, reject or ignore alternative thinking / practice specific to language-based educational risk in their early childhood classroom,
- negotiate aspects of alternative thinking / practice specific to language-based educational risk, as well as, acceptable and appropriate in their classroom,
- co-construct theory and practice specific to language-based educational risk as necessary,
- select and implement explicit language development practices for all students in their early childhood classes (not only those at educational risk), and
- share the review, selection and interpretation of constructs of oral and written language teaching-learning for future use in early childhood classrooms.

As a summary of co-constructive processes, this template represents that which was consistent in the opportunities offered to each of the ten participating teachers in this study. As shown in parallel stories, it is not a summary of outcomes for the ten participant teachers. The nature of teaching (Hall and Jones, 1976) and the demonstrated need to personalize the content and processes of co-construction, explain the multiple outcomes for teachers specific to changes in their thinking and pedagogy. Future research could examine critical influences on these outcomes against this template of common opportunities.

Co-construction developed from intent to improve on the effectiveness of collaborative practices between teachers, researchers and specialist service providers. Five recommendations made by Tripp (1993) were expanded and specified in this study. They are:

1. A shared commitment to the necessity for the research,
2. A research agenda consisting of topics of mutual concern,
3. Equally shared control over the research process,
4. Outcomes that are of equal value to all participants in professional terms, and
5. Using “fairness” to inform matters of justice amongst participants (p. 148).

The impact of these recommendations is apparent in the general and specific templates for co-constructing teachers’ thinking and pedagogy, in this chapter.

In the words of Carr and Kemmis (1986) the process of developing this template, with participant teachers, can be described as interpretive and scientific:

> ‘Interpretive’ in the sense that it generates theories that can be grasped and utilized by practitioners in terms of their own concepts and theories; ‘scientific’ in the sense that these theories provide a coherent challenge to the beliefs and assumptions incorporated in the theories of educational practice that practitioners actually employ (p. 118) .

Whether one engages with the general and specific templates of co-construction or not, some issues remain. Our individual lenses of personal constructs and social judgements remain active. Participants will decide what to accept, reject or remain neutral to, as co-construction develops in their context. Prior beliefs, experiences and practices of language specialists and classroom teachers are likely to shape their perceptions of the value (or otherwise) of future attempts to work together.

Summary

As co-construction developed during the second and third action research cycles, two features became increasingly important: (a) the sharing of personal constructs and classroom practice, and (b) opportunities for participants to decide when and why theory and practice were acceptable and appropriate to them. In addition, the provision of continuous opportunities for participants to influence the content and processes of co-construction, the need to personalize co-construction to facilitate change, and recognition of teachers’ self-perceptions of their strengths and support needs; emerged as influential.

Clearly, co-construction doesn’t just happen. It needs to be facilitated through professional discourse in schools and shared practice in classrooms. Final teacher reflections on the outcomes of co-construction from this study, are documented with Term Four data in the next chapter.