Teaching Multimodal Literacy Using the Learning by Design Approach to Pedagogy:

Case Studies from Selected Queensland Schools

by

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Declaration

I declare that this thesis is my own work and has not been submitted in any form for another degree or diploma and is not being submitted for any other degree or diploma, at any other university or institute of tertiary education.

I declare that any information derived from the published or unpublished work of others has been acknowledged in the text and a list of references has been provided.

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Abstract

This study uses qualitative research methodologies to explore the ways in which the *Learning by Design* framework facilitated the introduction of Multiliteracies and multimodal learning into the classrooms of three Queensland middle schooling teachers as they participated in a professional learning project during the second half of 2004. Recent Queensland education policy initiatives recognise the need for students to expand their 'literate' repertoires in this increasingly diverse cultural, linguistic, techno, and global-economic based society; an outcome that has drawn attention to the crucial role of professional learning in giving teachers the skills to produce curriculum and pedagogical designs in line with such a goal. While the documentation of conscious pedagogical choices in teachers' approaches to teaching and learning about Multiliteracies and subsequent classroom practice in Queensland has varied according to teachers' individual preferences and contexts, this study aimed to investigate what differences occurred when teachers deployed the *Learning by Design* pedagogy to produce a deliberate articulation of the micro teaching and learning conditions necessary for multimodal learning.

From the cross-case analysis and interpretation of the research data, five propositions have emerged: the relationship between the depth and breadth of teacher expertise in multimodality and its effect on instruction/design, learner engagement and performance; the alignment of pedagogical choices to learning goals; pedagogical alignment to learner needs and dispositions; consideration of flexibility in preparation of learners in transition points during the middle years of schooling; and the importance of quality multi-supportive professional learning environments to produce reflective practitioners with genuine and purposeful new knowledge. In this research the effectivity of the *Learning by Design* pedagogical framework was found to be directly related to the extent of professional learning and expertise that teachers had developed in both multimodality and the theory and principles informing the *Learning by Design* framework itself. The teaching of multimodal literacy creates an enormous pedagogical challenge for teachers as well as students. The research raises important considerations, therefore, not only about pedagogy but about the importance of developing professional learning initiatives to equip teachers to achieve the policy goals set out in recent initiatives. This highlights the need for the development of an in-depth and wide-ranging approach to the issue of professional learning. It is clear from this research that the *Learning by Design* framework can be used to transform classroom practice. However, it is equally clear that there must be a greater emphasis on professional learning and more resources channelled into building the groundwork for these new teaching initiatives.

Chapter One

Learning By Design

1.1: Introduction

This study is concerned with exploring the theory and principles associated with Kalantzis and Cope's (2005) *Learning by Design* approach to pedagogy and the professional learning of teachers within a context of a strategic reconsideration of long held notions of literacy. It seeks to explore what changes can occur in classrooms to counterbalance the existing preference for 'language' based approaches to literacy pedagogy in a world that is moving increasingly towards complex multimodal and multiliterate ways of making meaning and communicating.

The notion of literacy itself has changed. Once written language was considered the finest mode and measure of a person's literate potential in both public and educational domains. However, in an era of instant information brought on by rapid advances in technology and global economies, many people's work and private lives liberally accommodate the widespread repositioning of written language's principal status. The idea now is that written language is functioning as an equal partner to, and in combination with, other modes of communication or in multimodal ways in everyday life (Cope & Kalantzis, 2000, Kress, 2000b, 2003, New London Group, 1996, 2000). Many screen, mass media and techno-entertainment (including mobile phones and mp3 devices) users, for example, experience written and oral language as just one aspect in a shared stable of respected communicative practices alongside other modes such as the visual and aural. To add to this, diverse social and cultural changes in the way people use language to make meaning and interact in virtual, work, everyday life and public contexts have been amplified by current world circumstances generated by new technologies and globalisation (New London Group, 1996, 2000).

As far back as 1994, the New London Group (1996) detected this new theme emerging in the realm of literacy and put forward a theory that described an expansive view of 'literate' capabilities and questioned universally held ideas of literacy being a static and stable set of rules to be followed (Kress, 2000b, New London Group, 1996, 2000). This shift in what is deemed as literacy was formally labelled by the New London Group as Multiliteracies. It was

a term created as a way of describing and encouraging debate on the why, what and how, of literacy teaching given the texts of new technologies require simultaneous understanding of multiple modes of meaning and that existing literacy definitions that were restricted to a focus on language could at best, only account for one form of meaning. The outcome since the entrance of the Multiliteracies agenda into academic debate in 1996 has been the specific generation of new research, policy and practice in educational institutions across the globe. Such prolific attention to Multiliteracies has necessitated a reflective stocktake by policy makers, academics and practitioners of teachers' core business, in particular long held views on literacy and current pedagogical choices for literacy teaching and learning (Cloonan, 2005; Healy, 2004; Hill, 2004; Kalantzis & Cope, 2005; Kalantzis, Cope & Harvey, 2001; Kress, 2000a, 2000b, 2003; Lankshear, Snyder & Green, 2000; Luke, 2003, 2003b; Luke & Freebody, 2000; Neville, 2005; Prestige, 2005; Queensland Government, 2000, 2002a, 2002d; Thesan, 2001; Unsworth, 2001, 2002; van Haren, 2005; Zammit & Downs, 2002).

In Queensland there is no doubt that the concept of Multiliteracies has had a central impact in the reshaping of literacy policy and practice in recent times. The findings of the *Literate Futures: Report of the Literacy Review for Queensland State Schools* (Luke & Freebody, 2000) uncovered several weaknesses in the way literacy was being taught in Queensland schools and demonstrated them to be unprepared in relation to the global and technological circumstances that were emerging in new 'service-and-information-based economies'. Teachers were found to be unable to teach multiliterate skills and even to lack the necessary competence to engage with new technologies for teaching and learning. Both teachers and students needed to be able to use and continually develop a repertoire of literacy practices with a variety of media in different communications contexts. Following from this report a Literate Futures Strategy was introduced in stages between 2001 and 2004, during which time schools were provided with materials and professional learning opportunities to facilitate the development of whole school literacy strategies (Queensland Government, 2002d) and a framework for the teaching of reading (Queensland Government, 2002a). Two years later a further detailed professional learning P-12 CD-ROM on the specific teaching of reading in a multiliterate world was provided to schools (Queensland Government, 2004a).

An assessment of this strategy, however, exposed the need for other types of professional learning opportunities to be made available to promote engagement with Multiliteracies (Neville, 2004; Neville, 2005), exposing a clear need for educational research into the shifts required in teacher professional learning in order to carry forward the key curriculum reform

initiatives in literacy and pedagogy. Research indicates that the classroom dovetailing of information communications technologies with a deeper understanding of the intensification of the literate practices required in the use and production of multimodal texts is still underdeveloped or obscure (Luke, 2003a). More research attention is needed to uncover teacher interpretations and deployment of Multiliteracies to support improved student outcomes (Mills, 2005; Prestige, 2005; Queensland Government, 2004b).

Educational researchers have demonstrated that the quality of teaching accounts for more impact on student learning than curriculum content and socio-economic factors (Darling-Hammond, 1998; Hattie, 2002; Rowe, 2003). Meanwhile, a link to quality teaching and new theories, research and practice embodying the pedagogy of Multiliteracies has developed promising classroom strategies and potentially improved student outcomes (Kalantzis & Cope, 2005). Recent research by Kalantzis and Cope et al (2005) suggests there is a greater probability in developing broader, improved student literacy outcomes if learning is considered a deliberate and mindful act of design. The *Learning by Design* concept has now transcended Multiliteracies research to profile timely considerations about learners in new networked societies. The idea of *Learning by Design* and consequent research indicates that students will flourish if:

- their diversity of life experiences are accounted for in the design of the learning—in the degree to which they ‘belong’ in the learning;
- students are extended from their entry points in the learning process to a state of transformation—the design of the learning has been powerful enough to ‘transform’ them in significant ways;
- they are engaged in learning experiences that are responsive to their technological and digital lives—the designs for learning take account of ‘multimodality’; and
- pedagogical choices are overtly selected knowledge processes (experiencing, conceptualising, analysing and applying)—teachers knowing which pedagogical ‘takes’ are appropriate for students to belong to and be transformed by the curriculum.

Further, by enhancing the knowledge base of the classroom application of *Learning by Design* and Multiliteracies and their related theories and ideas in primary and secondary schools, the research can contribute to maximising the full potential of Australian students in this new century. Given that the capacity to transform students using the pedagogy of Multiliteracies and *Learning by Design* has been established in previous research (Bond,

2000; Burrows, 2005; Cazden, 2000; Cloonan, 2005; Cope & Kalantzis, 2000; Healy, 2004; Kalantzis & Cope, 2005; Neville, 2005; Stein & Newfield, 2000; van Haren, 2005) and a range of professional learning materials for teachers is now available, the time is ripe to explore the teacher-classroom-student conditions involved in deploying the theory and principles of *Learning by Design* that lead to students' use of the specialised discourses and grammars required to engage at intellectually rigorous levels not only with alphabetical literacy but also with digital and multimodal texts.

New research that focuses on how teachers design curriculum plans that encompass the multifaceted intentions of Multiliteracies and the deployment of these has direct practical significance for researchers, policy makers and practitioners. As yet the value of the *Learning by Design* approach to pedagogy in its classroom facilitation of multimodality and student diversity is still in its infancy and has not been fully explored. Previous limitations in research associated with *Learning by Design* show that case studies focusing on application of the approach (Burrows, 2005a; Burrows, 2005b; Cloonan, 2005; Neville, 2005; van Haren, 2005) have not involved an in-depth, systematic tracking of teachers' curriculum designs and recording of pedagogical practices as they interpret and use the framework to teach multimodality. These limitations can only be overcome through a case study approach that follows what happens in classrooms as a result of using the principles of *Learning by Design* to improve the intellectual use of a metalanguage for teaching about and through multimodality and the degree of effectiveness of this approach as a result.

The establishment and consequent research of the *Learning by Design* approach to pedagogy in primary and secondary schools in three Australian states and territories clearly presented the direction for this research. The classroom translations of the *Learning by Design* approach demonstrated that the link between the pedagogy of Multiliteracies and *Learning by Design* as defined by Kalantzis and Cope (2005) is important in research designs that aim to explore the teaching of multimodal literacy. The major purpose of this thesis, therefore, is to build on the potential of preceding Multiliteracies and *Learning by Design* studies and capture the missing and unrecorded processes of teaching and learning about Multiliteracies that have been absent from previous research to facilitate the use of this approach in classroom settings.

1.2: Research Question

In what ways does the *Learning by Design* framework facilitate the pedagogy of Multiliteracies and multimodal learning?

1.2.1: Aim and Scope of the Study

The aim of this research is to develop an understanding of how three teachers embraced new designs for teaching and learning about Multiliteracies. Central to this, therefore, is a focus on how the curriculum design process is facilitated using the *Learning by Design* approach and its pedagogical tags and how teachers used it to support their students' repertoire of literacy practices. The scope of the investigation involved one researcher gathering data on the phenomenon over approximately a semester (the time teachers were engaged in trialing the *Learning by Design* framework). The research objectives were:

1. To explore the pedagogical practices in the *Learning by Design* framework (planning, deployment and reflective stages) that teachers have chosen to support students' engagement in Multiliteracies.
2. To observe the repertoire of literacy practices that are selected by teachers for students to engage in and, in doing so, document and analyse the nature and scope of the literacy practices in the assessment tasks and the preferred modes of delivery of the students' applied knowledge.
3. To explore to what extent and in what pedagogical ways teachers have supported students' development of a metalanguage of Multiliteracies—multimodal expressions of meaning.
4. To document and analyse teachers' *Learning by Design* planning artifacts in relation to the amount of time devoted to, and the extent of detailed instruction of, the designs of meaning (multimodal literacy) in a given unit of work or lesson.
5. To examine the role of frameworks, specific curriculum and assessment design and theoretical models used by teachers to establish their pedagogical practice.

1.2.2: Research Procedure

The research was conducted during Semester Two of 2004. It was undertaken in three metropolitan State schools, with one upper primary teacher and two secondary teachers. These teachers voluntarily applied to participate in a Multiliteracies professional learning

research project which they understood was concerned with observations of their curriculum design and implementation.

The research took place over a period of four months and encompassed three phases. The first was focused on the initial professional learning days; the second was a collaborative planning phase; and the third was an implementation phase at each individual school. In the implementation phase the three case study teachers were audio taped and one was also videotaped.

1.2.3: Research Design

This investigation employed a case study technique (Merriam, 1988; Yin, 1984) because it provided a rich description of the three teachers' engagement with the *Learning by Design* framework and multimodal literacy. The case study method is particularly appropriate for this research because the investigation is tied to a specific educational phenomena and locality (Holloway, 1997).

1.3: Overview of Thesis

Chapter 1 has presented the context, the important ideas and main aspects of the research investigation.

Chapter 2 is a literature review of current issues significant to the study. It isolates policy, theories and research connected to Queensland State Education, professional learning, Multiliteracies and *Learning by Design*.

Chapter 3 details the research design and methodology that has been briefly outlined in this chapter. It provides detailed information about the qualitative research design and methods, the setting and the collection and analysis of the research data.

Chapters 4 and 5 present the findings and generalisations of the study of teachers' Multiliteracies curriculum planning and implementation stages. Chapter 4 communicates the findings and generalisations of teachers' project entry level profiles and their project curriculum planning. Chapter 5 provides the findings of the pedagogical delivery of the teachers' curriculum plans and concludes with a cross case analysis incorporating the generalisations drawn from the analysis in both Chapters 4 and 5.

The final chapter (Chapter 6) links the findings of the research back to the original aims of the investigation. It presents the implications for the practical conditions under which the *Learning by Design* approach to pedagogy supports multimodal literacy and, while it acknowledges the limitations of the research, it offers recommendations to educators based on the insights drawn from the research.

Chapter Two

Literature Review

In this chapter the literature relating to the research proposal will be reviewed. The starting point for this will be an examination of current Queensland education policy and initiatives that have shaped the way education is unfolding in this state and the way teachers have been expected to enact current educational initiatives. Following this will be a sampling of the theory and research surrounding professional learning and development, leading into a focus on pedagogy, mostly in the Queensland context. The next major aspect of the review will be a contextualisation of the theory and research on Multiliteracies, multimodality and the *Learning by Design* approach to pedagogy. The review will be concluded with a summary of the main issues that are central to the aims and objectives of the research outlined in this thesis.

2.1: Queensland Educational Policy in the 21st Century

Over the last 5 years educational policy in Queensland has expressed quite strongly the role of schools as drivers of socio-economic change in a new market place. This is evident in a series of generated reforms that have attempted to reconceptualise teaching and learning for an information age and a knowledge economy (Queensland Government 1999, 2001, 2002a, 2002b, 2004; Taylor & Henry, 2003). For example, QSE 2010, the principal strategy guiding all other subsequent educational initiatives from 1999, envisioned its direction from a futures perspective with mention of the emerging challenges of new workplaces, knowledges, community and economic needs. This 'look into the future' to determine the educational needs of students in state schools positioned educators in Queensland at the centre of unprecedented curriculum reform for a post industrial, new knowledge economy (Queensland Government, 1999; Varghese, 2001).

While the many Queensland Education policy initiatives from 1999–2004 covered a variety of reforms, this section of the literature review will focus on the umbrella of policy detailing the strategic direction of Queensland State Education in regard to three major strategies, research findings and initiatives that directly came under this umbrella and that directly or indirectly impacted on the focus of this study. The major policy initiative to be discussed is

contained in *Queensland State Education: 2010* (Queensland Government, 1999)—hereafter QSE: 2010—and, with that, the research and initiatives that directly related to curriculum reforms that this study is addressing: the *Queensland Schools Reform Longitudinal Study* (Queensland Government, 2001—hereafter QSRLS; the Literate Futures Project (Luke and Freebody, 2000); and the New Basics Project (Queensland Government, 2000, 2003, 2004b). Although these initiatives have been presented in a variety of contexts and literature, this review will primarily focus on their application to current curriculum renewal directives that were foundational to the context of this study.

2.1.1: QSE 2010

In 1999 the Queensland Government argued that if the State was to ensure success in the knowledge economy of the future, the standard of education and skills of its citizens needed to be equal to that of the best standards in the world (Queensland Government 1999). Therefore, QSE: 2010 was created as a strategy aimed at looking to the future to determine the kinds of educational reforms that were required by the State education system to successfully compete with global knowledge economies. It was the centerpiece from which all other Queensland educational policy was articulated to advise how schools would aim to align with rapid changes in the world in the first decade of the 21st century. Consequently all current Queensland State Education policy documents, initiatives and mandated directives can be located under this strategic direction.

QSE: 2010 used social, cultural, economic and technological contexts to shape and provide its 10 year educational strategy to Queensland schools. These contexts were referred to as ‘forces for change’ in curriculum design and deployment for the future. The strategy emphasised the existence of the ‘explosive growth in communication and information technology’ (Queensland Government, 1999, p. 6) and the increased degree of student diversity. Changes to families, cultures and economies must be articulated as the major concerns challenging teachers at all levels of education. In its summary of these ‘forces for change’ QSE: 2010 recommended that Queensland state schools be ‘re-conceptualised’ as part of a new ‘learning society’ and elaborated further the challenge for teachers:

This will transform the means and ends of teaching and learning in schools—those involved, the way it occurs, and the principles on which the curriculum is constructed. It changes what teachers do from teacher centred learning and

gatekeepers of information to managers of the learning experiences of children (Queensland Government, 1999, p. 8).

The 'transformation', it was claimed, would be supported by curriculum for the future such as the *New Basics* (Queensland Government, 2000) which would favour all students' chances at gaining 'relevant and powerful skills and knowledge' and build new teacher professional capabilities (Queensland Government, 1999, p. 10).

In reference to the characteristics of schools capable of taking up the challenges of these new 'forces for change' QSE: 2010 outlined the important shifts all schools needed to make.

Quality schools will divest themselves of traditional industrial age and bureaucratic restraints and reinvent as dynamic 'learning organisations' in 'learning communities' (Queensland Government, 1999, p. 10).

QSE: 2010 detailed the purpose of State Education in the first decade of this century by asserting that it should be relevant for changing economies; the Australian identity, both in a multicultural and global sense; and participatory citizenship in community, economic and political life. Specifically its first priority was to have capacity for:

the consequences for education of the transition to a knowledge economy. They include building the new skills needed for work and a social life in the information age, providing a foundation for lifelong learning in formal and informal settings, problem solving and critical thinking and developing the flexibility to manage change (Queensland Government, 1999, p. 12).

Clearly this overarching strategy was arguing for paradigm shifts in the way teachers think about what constitutes their role, knowledge and futures orientated pedagogical practice. The focus was unequivocally first and foremost about pedagogical renewal (Luke, 1999).

The basic principle of QSE: 2010 was to look to the future to improve student learning outcomes evidenced in an increased percentage of Queensland students completing year 12. This imperative for the future related to the new directions learning, schools, and the workforce would take. In the road map for the implementation of QSE: 2010, *Destination 2010: 2002–5*, it was concluded that:

Future technology, workplaces of the future, communities of the future, the role of government and the new economies are just some of the contextual factors that will have an impact on education. During the next few years, Education

Queensland will work with all stakeholders to explore the impact of changes in society, technology and education and to determine approaches for capitalising on these changes for the benefit of students. Within education, there are uncertainties to be explored in areas such as multi-literacies, future learning spaces, emerging technologies, pedagogy, and the changing expectations and needs of young people (Queensland Government 2002b, p. 17).

Consequently the school reform agenda initiatives that descended from QSE: 2010 were aimed at strategically addressing teachers' roles and the changing needs of young people. Three major policy developments were designed to develop initiatives to implement new methodologies to curriculum, pedagogy and assessment that would focus on education in new economic, social, cultural and technological times. These were the 'Productive Pedagogies' (Queensland Government, 2002c), the 'New Basics' (Queensland Government, 2000, 2003), and 'Literate Futures' (Luke and Freebody, 2000; Queensland Government, 2002a, 2002d).

2.1.2: QSRLS

At the same time that QSE: 2010 was being developed, interim reports of the *Queensland School Reform Longitudinal Study* (hereafter QSRLS) were used to 'provide systemic advice' on future educational policy concerns addressed in QSE: 2010, one example of which was the Years 1–10 Curriculum Framework (Queensland Government, 2001b). Primarily, the QSRLS research located the quality of classroom practice and relationships as being central to school reform and innovation. The researchers concentrated on what they and other researchers before them (Fullen 1996, Newman et al, 1996) assumed to be valued learning outcomes:

Quality student outcomes were not defined in terms of results from limited, standardised testing of basic skills, but rather in terms of sustained and disciplined inquiry focused on powerful, important ideas and concepts which are connected to students' experiences and the world in which they live (Queensland Government, 2001a, p. 4).

The study detailed particular pedagogical repertoires, the twenty elements of Productive Pedagogies grouped into four dimensions, which promote high intellectual demand and effectiveness in dealing with diversity.

Intellectual Quality	Higher-order thinking Deep knowledge Deep understanding Substantive conversation Knowledge seen as problematic Metalanguage
Relevance	Knowledge integration Background knowledge Connectedness to the world Problem-based curriculum
Social Support	Student control Student support Explicit criteria Engagement Self regulation
Recognition of Difference	Cultural knowledges Inclusivity Narrative Group Identity Citizenship

Table 2.1: Productive Pedagogies: Queensland School Reform Longitudinal Study (2001a)

Not surprisingly, key issues and recommendations from the study (Queensland Government, 2001a) list Productive Pedagogy first in a collection of issues and recommendations tabled to the Department of Education from the research. Overall the final report of the study found that because ‘teachers themselves actually rate basic skills as the highest of their priorities, and intellectual engagement and demand as the lowest’ (Queensland Government, 2001a, p. 15) the breadth of renewed concentration and pedagogical transformation focusing on intellectual rigor was critical.

While the study argued that findings and recommendations of QSRLS had an important role in the context of QSE: 2010, major curriculum reform in Queensland was also provided with a tangible concept of quality pedagogical practices as an outcome of QSRLS. Firstly, ‘Productive Pedagogies’ along with ‘Rich Tasks’ and the ‘New Basics’ curriculum organisers became part of the triad of the New Basics deployment. Secondly, a whole system of curriculum framework Years 1–10 Curriculum Framework for Education Queensland Schools (Queensland Government, 2001b) mandated policy for schools to use Productive Pedagogies for curriculum renewal, specifically targeting intellectual engagement and the alignment of curriculum, pedagogy and assessment.

2.1.3: The New Basics Project

In accordance with QSE: 2010 the New Basics for curriculum, pedagogy and assessment was introduced as a trial educational initiative in 38 schools in 2000 (Queensland Government, 2000). In this policy document the objective of ‘learning’ for a ‘knowledge economy’ was connected to key characteristics such as lifelong learning, problem solving and critical thinking. The idea was that the New Basics themselves were the educational outcomes that students in Queensland needed to successfully work and take part in communities and societies of the future (Queensland Government, 2004b).

The New Basics approach to change in the educational domain to meet future demands was based on the idea of constructing curriculum for the anticipated set of learning for new life worlds of Queensland citizens. The research reports states that:

[t]he New Basics idea organises a futures-oriented curriculum into four categories, each of which has an explicit orientation towards researching, understanding, and coming to grips with newly emerging economic, social and cultural conditions (Queensland Government 2004b: p. 3).

Long held curriculum organisers were replaced with four essential areas of learning within the New Basics framework which were labeled: Life Pathways and Social Futures, Multiliteracies and Communications Media, Critical Citizenship, and Environment and Technologies. Rather than expand on all four New Basics curriculum organisers, the literature review will now concentrate on the one essential learning area, ‘Multiliteracies and Communications Media’, that relates to and informs the research in this study.

This second New Basics organiser was concerned with the question of ‘How do I make sense of and communicate with the world?’ (Queensland Government, 2000). It was an acknowledgement and direct application of a version of the seminal work on Multiliteracies by members of the New London Group (1996). Traditional forms of communication such as writing, reading and basic arithmetic were not made redundant in the New Basics Project, however new forms of communication, for example digital information technologies, were given equal space in an attempt to have students blend new and old communications media in solving real word rich tasks. This meant that the development of literacy and numeracy in New Basics schools was to be realised through a concentrated effort of accomplishment of traditional skills through new repertoires of practices involving new communications media (Queensland Government, 2000). The design and performance of multimedia texts was

crucial to many of the rich tasks devised for the trial schools. This aspect was substantiated by the creators of New Basics as corresponding with what was common and central to the communication of ideas in service and information economies (Queensland Government, 2000).

The New Basic Project claimed that, within the curriculum organiser of Multiliteracies and Communications Media, using old and new communications media required success at understanding a number of symbolic codes. Students needed to become multiliterate if they were to operate in a networked society. This claim cited the development of students who could 'switch between and blend multiliteracies' such as the processes and competencies involved in constructing a web page (Queensland Government, 2000, p.10). In all, 25 research papers were written for the New Basics Trial Report (Queensland Government, 2004b) in order to produce learnings about the New Basics as such. One finding from the New Basics research that directly relates to the focus of this study related to problems associated with professional learning in the project link to professional learning designs. A number of teachers involved in the New Basics trial were found to be ill equipped with the professional learning practices that required shifts in commitment to extend their professionalism. These teachers, the report suggested, were too dependent on 'receiving authoritative messages' in professional development episodes and were 'lost' with the emphasis now placed on them to engage in higher cognitively demanding professional learning about a significantly new way of delivering education (Queensland Government, 2004b).

While the New Basics Report (Queensland Government, 2004b) identified that student work 'displayed skills for new times including information communication technologies (ICTs hereafter) and critical literacy' there was nothing in the summary of research findings to show how such teachers tackled the idea of Multiliteracies to support the acquisition of the New Basics and what happened as a consequence of their being ill equipped. However, other research conducted through an Australian Research Council Linkage project undertaken in a cluster of the trial schools, the Suncoast Cyberschools, explored New Basics teachers' understanding of the relationship between Multiliteracies and ICTs (Prestige, 2005). This research compellingly highlighted that little had changed in regard to the 'literacy pedagogy' of many teachers in these New Basics trial schools other than the addition of ICTs at a technical level.

That Multiliteracies and Communications Media, arguably a central organiser for the New Basics framework, has not yet been deeply researched, raises some key issues about the nature and extent of the professional learning offered to trial teachers in regard to Multiliteracies pedagogy (Luke & Freebody, 2000; New London Group, 1996; Queensland Government, 2002a) and the way it links to the Productive Pedagogies. It also points to a hole in understanding and anticipating effecting the deployment of any developments in the New Basics.

2.1.4: Literate Futures

The Literate Futures State Literacy Strategy was an integral part of the QSE: 2010 (Queensland Government, 1999) ‘futures orientated’ reform agenda. It was a detailed strategy for literacy that embarked on building improvements in student literacy learning outcomes (Luke & Freebody, 2000; Luke, 2004). Clearly the Literate Futures strategy highlighted how schools could adopt new approaches to reform literacy teaching and learning for the specific communities they served. The findings of the *Literate Futures: Report of the Literacy Review for Queensland State Schools* (Luke & Freebody, 2000) uncovered many strengths and weaknesses in the way literacy was being taught in Queensland schools. It was clear from the evidence put forward that, while writing instruction was considered to be consistent across the state, reading instruction lacked a general focus.

The review made reference to the lack of preparedness of Queensland schools in relation to educational futures, in particular it drew attention to the influential work on Multiliteracies by the New London Group (1996). It reported on the global and technological circumstances that have led to the Multiliteracies agenda and how these impacts were emerging in new ‘service-and-information-based economies’ (Luke & Freebody, 2000). However, the report claimed that teacher participants in the review offered very few comments on the new multiliterate skills required in changing workplaces. Furthermore it alerted the education department about the ‘serious problems’ with teachers’ competence and engagement with new technologies for teaching and learning.

Literate Futures emphasised the critical importance of these challenges for Queensland State education and offered new pathways for charting the repertoire of literacy practices students required. As a result the key findings from the report both in terms of a need to refocus schools on an informed and balanced approach to the teaching of reading and on approaches

that merged traditional literacy skills with ‘future literacies’ led to the formation of a new definition of literacy as a ‘starting point’ for Queensland schools:

Literacy is the flexible and sustainable mastery of a repertoire of practices with the texts of traditional and new communications technologies via spoken language, print and multimedia (Luke & Freebody, 2000, p. 9).

What this meant was that while high achievement in traditional literacy skills was still a valued outcome, students needed to be able to make use of and keep building on a repertoire of literacy practices with a variety of media in different communications contexts (Luke & Freebody, 2000; New London Group, 1996,).

The Literate Futures Strategy was implemented over a period of stages during 2001–2004. Schools were provided with materials and professional learning opportunities in developing whole school literacy strategies (Queensland Government, 2002d) followed by a framework for the teaching of reading (Queensland Government, 2002a). A further detailed professional learning P–12 CD-ROM on the specific teaching of reading in a multiliterate world was provided to schools in mid 2004 (Queensland Government, 2004a), nearly 2 years after the initial awareness raising material about ‘new times, new literacies’ was published. This two year gap in provision of systemic professional materials on teaching and learning Multiliteracies exposed the need for other types of professional learning opportunities for committed schools to engage with Multiliteracies (Neville, 2004; Neville, 2005).

While no empirical research has yet been published on the implementation of Literate Futures, Luke (2004, p.20) acknowledges that four years after the commencement of Literate Futures the reform ‘led to major and ongoing pedagogic dialogue amongst teachers and among teacher educators across the state’. There is a clear need for research into the shifts required in teacher professional learning in order to carry forward the key curriculum reform initiatives in literacy and pedagogy aimed at improving student learning outcomes for ‘new times’.

In 2001 the Director General of Queensland Education, Jim Varghese (2001), alerted Queensland educational researchers to ‘critical areas’ that would need to be pursued during the implementation of QSE: 2010’s initiatives. This was a Queensland Government confirmation that educational policy and practice enacted through the QSE: 2010 strategy required continual complex and wide ranging research input to ensure ongoing policy was

‘critically informed’ (Varghese, 2001). Varghese provided some key areas of concern including the study of information communication technologies:

The rapid advances in information communication technology require constant ongoing research and evaluation on the impact of pedagogical practices and student outcomes. All Queenslanders live in the information age and are affected by vast social changes, not least of which, for the Education workforce, will be the progressive retirement of the Baby Boomers. Education has a strategic role to play in not only preparing young people for their life pathways but also in engaging the wider community in lifelong learning. This must be a whole of government and community agenda Varghese (2001, p. 4).

Recently Luke (2003b, p. 90) added to this claim that agendas for educational policies which have focused on new ‘economies and cultures’ require ‘much more programmatic research agendas on: multiliteracies, new technologies and education, as systems seek to understand digital education after the hardware and infrastructure investment.

2.2: Professional Learning

Despite the enormous focus in Queensland on curriculum and pedagogical renewal many essential problems and questions about teacher professional learning continue to be unsolved (see for example, Darling Hammond, 1998, 1999; Hawley and Valli, 1999; Kalantzis & Cope et al, 2003; Thompson & Zeuli, 1999). The transformation of learning, schools and the workforce from an industrial based era of schooling to an information based ‘knowledge society’ form of schooling cannot be satisfactorily described in policy documents, curriculum and professional development materials alone (Thompson and Zeuli, 1999). It could be argued that there are still many professional learning hurdles in the journey to make Literate Futures, Multiliteracies and Productive Pedagogies fully embedded in classrooms.

Reform work on school effectiveness over the last three decades has found the quality of pedagogy to be linked to a variance of more than 20% in students’ performances (Newman, 1996; Lindgard et al, 2001, cited in Luke, 2003a). It is now well understood that the quality of teaching has more impact on student learning than other indicators such as gross demographics or curriculum (Darling-Hammond, 1998; Hattie, 2002; Rowe, 2003). ‘Skillful teaching’, according to Darling-Hammond (1998), requires an understanding of ‘pedagogical content knowledge’ and ‘pedagogical learner knowledge’ which provide the means for improved student understanding.

While education was more centralised twenty years ago, it is widely accepted that pedagogical decisions are, now more than ever, the well-established responsibility of schools and individual teachers. In the case of literacy pedagogy, teachers have the responsibility of catering for student diversity which is often provided by 'ad hoc' conditional 'pull out' learning support programs (Luke & Freebody, 2000). And yet, the data in Queensland, according to Luke (2003a), shows that the fundamental problem with school based pedagogical choices is not in the 'delivery of basic skills, but the 'dumbing down' of the primary and middle schooling curriculum' (Luke, 2003, p. 62).

In the context of pedagogical reform initiatives, recent studies on professional learning and development have led to certain understandings about the connection between professional learning and actual classroom level curriculum reform and improved student learning outcomes. It is argued that new systemic initiatives require an enormous amount of professional learning (Darling Hammond & Sykes et al, 1999). Furthermore the standards of teacher practice articulated in the Queensland curriculum reform documents suggest a vision of 'high road transfer' (Thompson and Zeuli, 1999) of teacher professional knowledge and practice in pedagogy and curriculum. Yet a substantial amount of research asserts that what constitutes quality professional development for curriculum reform is often not what is realised in the professional development practices in most schools (Ball & Cohen, 1999, Hawley & Valli, 1999, Thompson and Zeuli, 1999).

Unmet outcomes in terms of teacher change are often attributed to resistance to new reforms. Hawley and Valli (1999, p. 133) contend that:

[e]ven when there is compelling evidence about the efficacy of a new strategy for improving schools, there are many advocates for the status quo. The result is that old and new beliefs exist side by side, yielding blurred visions and compromises that undermine the adoption of major changes.

Recently, Thompson and Zeuli (1999) provided three reasons why the carriage of new reforms by teachers is 'elusive'. The first reason relates to whether teachers have cast off the 'deeply ingrained' representation of their own schooling which viewed 'knowledge as facts, teaching as telling and learning as memorising' (Thompson & Zeuli, 1999, p. 349). The authors argue that such change of habits requires enormous unlearning. Another reason for a lack of authentic demonstration of new initiatives in classrooms is what they call 'productive tinkering'. According to Thompson and Zeuli (1999) teachers typically 'change' their

practice by continually gathering assortments of new teaching methods, new ideas, activities and curricula material that fit their existing 'style'. While practical, this form of change is thought to be conservative because it allows teacher preservation of their existing and fundamental beliefs about curriculum knowledge, teaching and learning. Rather than confronting beliefs, 'productive tinkering' perpetuates habitual practice (Thompson and Zeuli, 1999). The third reason Thompson and Zeuli (1999) offer about the deficiency in teacher change is that teachers believe 'they know it already' when unfortunately this claim in understanding might not correspond with the real intentions of the new initiative or reform.

By its very term, teacher professional learning requires a degree of conscious individual transformation which ultimately has an impact of changing previous classroom practice in some significant way. Ball and Cohen (1999), Darling Hammond and McLaughlin (1995) and Thompson and Zeuli (1999) suggest that teacher transformative professional learning requires a serious commitment to higher cognitive learning about new professional practice rather than gathering new approaches and activities. This is supported by deCourcy Hinds (2002) who maintains that teaching should be seen as a clinical profession—'a profession that assesses, diagnoses, prescribes and adjusts practice to reflect new research, training and experience' (deCourcy Hinds, 2002, p. 2). It can be argued that the case for teacher professional learning put forward by these researchers in the field suggests that teachers' understanding about new theories and practices and about their own professionalism have to be seen as a case of continual intellectual renewal. This begs the question of how teachers will understand the ideas at the heart of the reform if the people designing policies for support don't consider or fund appropriately for the amount of transformation required.

Fundamentally different visions of classrooms and learning are frequently outlined in new systemic initiatives but these require professional learning policies that support this huge shift in thinking about enacting the curriculum. While Darling Hammond (1998) argues that responsive policies that provide guidelines on quality professional development for curriculum reform have only just begun, she provides some directions for such policies. A number of these include:

- allowing space for new communities of practice including research and curriculum development collaborations between teachers and universities and between teachers and other schools;
- providing empowering authentic new roles for teachers to have carriage of developing innovative curriculum, setting standards and assessing practice;

- teacher research and assessment of school-based pedagogical practices have the power to lead teachers to new paradigms of practice;
- a school community of practice including peer reviews supports the reconceptualisation of old practices through feedback and evaluation.

Furthermore, to counteract the predictable patterns of teacher change that face any new reform—that is, the preference for teachers to assemble eclectic ideas, methods and approaches that endorse rather than change old habits of practice (Lankshear, Snyder & Green, 2000) or ‘productive tinkering’ (Thompson and Zeuli, 1999)—professional development designs must consider the ‘how’ of deep teacher change.

While many researchers advocate a change in teacher beliefs as being central to new reform, Ingvarson, Meiers and Beavis’ (2005) research into Australian teacher professional development found that giving teachers a model of practice to trial with their students first before trying to change attitudes was effective. However, as this was not a study of teacher change within a particular systemic reform initiative *per se*, there are data limitations in this study as the findings of quality teaching were based ‘primarily on teacher self-reported data’ and not on first hand evidence.

Thompson and Zeuli (1999) offer a position on what might potentially effect serious teacher change. A set of five requirements for transformative professional development is:

1. ‘a sufficiently high level of cognitive dissonance to disturb in some fundamental way the equilibrium between teachers’ existing beliefs on the one hand and their experience with subject matter, students’ learning and teaching on the other... dissonance significant enough to provoke a transformation in teachers about knowledge, learning and teaching’;
2. ‘provide time, contexts and support for teachers to think—to work at resolving the dissonance through discussion, reading, writing, and other activities that essentially amount to the crystallisation, externalisation, criticism, and revision of their thinking’;
3. ‘ensure that the dissonance-creating and dissonance-resolving activities are connected to the teacher’s own students and context, or something like them’;
4. provide a way for teachers to develop a repertoire for practice that is consistent with the new understanding that teachers are building’;
5. ‘provide continuing help in the cycle of (1) surfacing the new issues and problems that will inevitably arise from actual classroom performance, (2) deriving new understandings from them, (3) translating these new

understandings into performance, and (4) recycling' (Thompson and Zeuli, 1999, pp. 355–357).

If the ultimate aim of educational institutions is to have curriculum reform initiatives taught as they are intended to produce improved student learning outcomes then it follows that the above requirements (Darling Hammond, 1998; Thompson & Zeuli, 1999), together with other findings in recent literature on professional development and learning, require a level of deep conceptual thinking and rethinking from those who typically have responsibility for the design and deployment of teacher professional learning and development.

2.3: Multiliteracies

In terms of research the ideas of Multiliteracies are by no means new. Over the past decade many researchers and scholars have focussed on the intense changes new technologies have made to the way people in the world now choose to communicate and the impacts these changes are having on education, work and personal lives. The Multiliteracies agenda began in 1994 from just such a need and has since been a major subject of interest in education circles in Australia and other parts of the world.

The concept of Multiliteracies describes a major shift in what counts as being literate in the world today (New London Group, 1996). First, reading and text construction in real world contexts makes use of conventional print technology but does not remain restrictively in written language form. Varying combinations of written, visual, audio, gestural and spacial layouts are increasingly evident in most public texts. This is referred to as 'multimodality' (Kress, 2000b) and is recognisable in the texts of new technologies—for example, computer software programs, digital photography, mobile phones, web pages, CD-ROMs, video games and multimedia. The second aspect of this reconceptualisation of literacy emphasises how globalisation and a networked society has uncovered—and helped produce—significant linguistic and cultural diversity among the way language is now learned and used in everyday practice.

'Multiliteracies', was a word created to extend many educators' views of literacy being singularly associated with linguistics and one standard use of the English language. The New London Group (2000) claim that Multiliteracies is:

...a word we chose because it describes two important arguments we might have with the emerging cultural, institutional, and global order. The first argument engages with the multiplicity of communications channels and media; the second

with the increasing salience of cultural and linguistic diversity (New London Group, 2000, p. 5).

The New London Group (2000) argued that it is these factors that affect the way meaning making occurs and that traditional literacy teaching and learning has become outdated and needs to be enhanced by a more relevant approach. The argument for the Multiliteracies case is for a new, less restricted way of teaching literacy that will take into account social and cultural language differences and the increasingly multimodal nature of public communication. Unsworth (2001) reiterates these sentiments by observing that '[i]n the twenty-first century the notion of literacy needs to be reconceived as a plurality of literacies and being literate must be seen as anachronistic' (Unsworth, 2001, p. 8).

2.3.1 Design Theory and Multimodality

In conceptualising what students needed to learn about Multiliteracies, the New London Group (2000) advocated the development of a functional grammar. This need for a set of new 'grammars' was identified in order to describe the patterns of representation in the linguistic and cultural demands of context-specific texts and the six design elements or meaning making systems present in the texts of our real world lives. It was claimed a metalanguage would help students to explain differences in the use of oral and written language and the visual, audio, gestural and spatial design elements in everyday communication as they appear by themselves or in combination, in other words, multimodal form (Cope & Kalantzis, 2000; Kress, 2000b).

This focus on 'grammar' indicates that the Multiliteracies idea does not just acknowledge that texts are increasingly multimodal (Kress, 2000b). It also considers that all modes of meaning (linguistic, visual, audio, gestural, spacial) show regularities or 'grammars' that can be related in certain conceptual ways to written and oral language (Cope & Kalantzis 2000; Kress, 2000b). For instance, 'being' and 'acting' in a written text are centred on processes, attributes and circumstances which positioned in an image convert to vectors, location and carriers (Cope & Kalantzis, 2000).

However, analysis and production of multimodal texts cannot be undertaken using current language based theories because, as Kress (2000a) speculates, 'theories of language can at best offer explanations for one part of the communication landscape only' (Kress, 2000a, p 153). The assumption is that, for any mode of meaning, grammar must satisfy the communication of events and circumstances in the world, the relations of power of participants as they interact and the creation of messages that internally make sense (Kress,

2000b). An adequate theory for multimodal learning and teaching would include ‘the description both of the specific characteristics of a particular mode and of its more general semiotic properties’ (Kress 2000a, p. 153). It would also consider how the elements of different modes or the semiotic systems combine to make meaning through the emphasis of production of multimodal texts as opposed to pure analysis and critique of such texts (Thesen, 2001).

Members of the New London Group (2000) conceptualised these meaning-making systems that exist in multimodal texts in terms of an iterative process of Design. The first stage of the process begins with Available Designs—here the meaning maker uses existing design elements, for example, the linguistic, visual, audio, gestural and spacial designs in books, the screen, still and moving images etc. The next stage incorporates the process of Designing—drawing on these available designs to make meaning. Finally, The Redesigned is a transformed and extensive understanding of the implied use of available designs (Cope & Kalantzis, 2000; Kress, 2000a).

The description of this process of Design by the New London Group was accompanied with reference to the support of a metalanguage to make sense of Available Designs and the Redesigned. The New London Group (2000, p.24) contend that:

...the primary purpose of a metalanguage should be to identify and explain the differences between texts, and relate these to the contexts of culture and situation in which they seem to work. The metalanguage is not developed to impose rules, to set standards of correctness or to privilege certain discourse in order to ‘empower students’. More importantly, informally we might ask of any Designing, ‘What’s the game’ and ‘What’s the angle’?

It is becoming well known that multimodal learning environments will continue to put pressure on existing teaching and learning practices—in particular, the relevance of some practices in print-based classrooms and their worth in assisting effective learning (Bearne, 2003; Kress, 2003; Lankshear, Snyder & Green 2000; Zammit and Downes, 2002). These days individuals are more than likely to be readers and producers of multimodal texts. This is due to a larger percentage of people having access to software that enables multimodal authorship in schools, the home and workplace (Unsworth, 2003). However pedagogical practices that simply promote the authorship of multimodal texts (adding multimodality on to existing approaches) do not automatically advance effective pedagogy or authentic literacy practices. Effective pedagogy for multimodal literacy requires explicit teaching of strategies

for working with the forms, features and cultural contexts of these texts (Cope & Kalantzis, 2000; Lankshear, Snyder & Green 2000; Kress 2003; Zammit & Downes, 2002).

Lankshear, Snyder & Green (2000) in their research on teachers' use of technology discuss the add-on nature of new technologies in primary classrooms. They refer to teachers' use of new technologies to fit their familiar approaches to literacy teaching and learning, for example children typing up a story on the computer rather than rewriting a final draft, as 'old wine in new bottles' syndrome or a 'digital makeover'. The researchers argue that:

some of the practices raise the question of what counts as effective learning involving new technologies. If we believe that effective learning connects what learners do now 'in meaningful and motivating ways with "mature" (insider) versions of related social practices with what they will be doing in later points in their life trajectories' (Gee, Hull & Lankshear, 1996: 4) we might consider whether the same software applications can be taught via practices that are closer to those that are employed by expert users of presentation software and the internet (Lankshear, Snyder & Green, 2000, p.102).

Lankshear, Snyder and Green's (2000) argument was for teachers to consider ways of making classroom practices involving the texts of new technologies more authentic in similar ways that experts use them for real purposes. Additionally the contention is that in this era a narrow or uniformed view of literacy and a lack of attention to the discourses of the social practices (as experts use certain discourses) involved in using new technologies is not acceptable:

...to operate effectively in a discourse is to become fluent and appropriate in its discourse. This involves more than just coming to grips with 'technical or skills' aspects of encoding and decoding. Learning how to handle the reading and writing components of a discourse requires being immersed in social practices where participants 'not only read texts of this type in this way but also talk about such texts in certain ways, hold certain attitudes and values about them, and socially interact with them in certain ways (Lankshear, Snyder & Green, 2000, p.29).

Recent work in the field of Multiliteracies provides some concrete examples of how teachers are engaging their students in these new literate practices (Healy, 2004; Hill 2004; Thesan, 2001). Hill's (2004) research project *Mapping Multiliteracies: Children of the New Millenium 2002–2004* found that the teachers and students needed a metalanguage to support the transformation of their literacy and learning repertoires from one medium to another.

Teachers involved in the project tended to emphasise the functional aspects of multiliteracies rather than an analysis of the interests underlying the design of multimodal texts.

The research noted that what was required was more professional insight into what constitutes multimodal learning. Consequently a ‘Multiliteracies Map’ and a professional development program for learning about multiliteracies was created which describes a framework for children’s learning in terms of a functional user, a meaning maker, a critical analyzer and a transformer. While Hill’s (2004) research on outcomes concentrates on moving teachers beyond the functional by focusing on broader learner practices and acknowledges that ‘designing learning experiences for children requires skilful, continuous professional learning’ (Hill, 2004, p. x), there is little reference to how teachers might be moved towards a conscious understanding of a defined pedagogical approach to demonstrate transformation in multimodal learning.

Thesen’s (2001) case study on the analysis of multimodal texts in a critical literacy foundational course in the Humanities at a university in South Africa proved that without a concentrated effort on pedagogy, deep learning about multimodality can be lost. The pitfalls of not addressing the ‘how’ of multiliteracies were related to the disappointment in many multilingual students’ results at the end of the course which asked students to provide critical textual analysis of historic photographs and sketches of cultural interest to them. In order to complete the assignment students needed to use standard English, an academic discourse, a specific language for the analysis of visual images and a critical literacy metalanguage. Thesen (2001, p.139) describes these requirements as a ‘complex, powerful linguistic brew both informing and challenging new students’.

Thesen provided a number of possibilities to account for many students’ failure to meet the outcomes of the course. One possibility put forward for the wide and often disappointing range of student performance was that there was too much focus in designing the course content—the selection of texts for analysis and theoretical readings—and not enough time devoted to ‘how we engage with multimodal texts’ (Thesen, 2001, p. 141). Another related to the lack of academic expertise in the ‘exploration of modes’ as tutors often found themselves having to support students to analyse modes outside their discipline boundaries. The study’s findings suggest a stronger focus on pedagogical issues in relation to literacy practices and while acknowledging that the linguistic mode will ‘always have a place’, Thesen offers the reconsideration of assessment of multimodal learning from analysis to multimodal production:

Research that describes learning where students have control of production in different modes is often inspiring, and clearly points to the value of different pedagogic space where design plays a stronger role than critique (Thesen, 2001, p. 142).

2.3.2: The Pedagogy of Multiliteracies

The Pedagogy of Multiliteracies framework (New London Group, 1996) uses learning aspects or curriculum orientations drawn from established practices in literacy teaching to describe how integrated conditions for Multiliteracies pedagogy can be addressed:

- Situated Practice involves engaging students in meaningful practices from their prior and existing experiences.
- Overt Instruction guides the learner through scaffolding and explicit teaching of a metalanguage for design differences in the discourses of practices being studied.
- Critical Framing supports the learner to frame their knowledge in terms of the cultural and social context, audience, perspective and underlying interests.
- Transformed Practice extends the learner to transfer new knowledge in new contexts.

This framework provides a view of how the development of knowledge is entrenched in different social, cultural and learning domains, however it was initially presented more as an enhancement to established linguistic approaches to teaching literacy rather than as a replacement of such practices (Kalantzis & Cope, 2000).

This Multiliteracies framework has been researched for a number of years in different international settings (Bond, 2000; Cazden, 2000; Chandler-Olcott & Maher, 2003; Cope & Kalantzis, 2000; Newfield & Stein, 2000). In one study, Bond (2000) found that ‘the Multiliteracies framework forces practitioners to stand back and critically review their pedagogy’ (Bond, 2000, p. 320). Furthermore, Newfield and Stein (2000) noted in their study that sample postgraduate students generally viewed the potential of Multiliteracies pedagogy framework in terms of ‘introducing a broader more inclusive canon’ (Newfield & Stein, 2000, p. 299) within the English curriculum. While the positive reflections were many, there were also expressions against the practicality of the framework in a South African setting due to the perception that it would entail an enormous retraining of a generally conservative teaching population. Chandler-Olcott and Maher’s (2003) findings in relation to adolescent girls’ technology-related media literacy skills suggested further implications for research.

They proposed using Multiliteracies as a theoretical lens, in particular the explicit consideration by teachers and researchers of ‘the relationships between and among the components’ of Situated Practice, Overt Instruction, Critical Framing and Transformed Practice (Chandler-Olcott & Maher, 2003, p.383).

What the Multiliteracies work has done so far is it has revealed the limitations of some of the ‘old guard’ literacy practices in schools and motivated many educators and educational institutions to reflect on and reconceptualise their practices and policies. Members of the New London Group have continued to contribute to and extend the argument as originally developed in 1994. This thesis focuses on that continuation of research and development by two members of the New London Group, Mary Kalantzis and Bill Cope, whose ongoing development of educational theory and ideas is central to the theory of *Learning by Design*.

2.4: Learning by Design

2.4.1: Learning by Design Theory

Recently published theory by Kalantzis and Cope (2005) suggests a new approach to learning for an age of Multiliteracies, and changing social contexts. This approach seeks to reconceptualise knowledge, pedagogy and learning in order to provide a way onward for schools to address changing educational contexts such as those described in QSE:2010 (Queensland Government, 1999) and the Multiliteracies agenda. Kalantzis and Cope have called this approach *Learning by Design* and refer to their approach to learning as a means of addressing education in the ‘knowledge society’ in new ways. These new ways, according to Kalantzis and Cope, require schools to rethink existing representations of learning ‘not simply in terms of curriculum content, but also to interrogate more deeply conceptions of literacy, knowledge and even the purposes of learning’ (Kalantzis & Cope, 2005, p. 3). They propose new insights into pedagogical interactions for engaging the learners of today, both in terms of unique learner responsiveness to education and their increasingly digital and global lifestyles.

The *Learning by Design* approach encompasses the Multiliteracies idea, describing literacy not as something to be drilled into students, as were traditional reading and writing skills, but something students need in order to communicate in the wide and varied contexts of a new networked society. *Learning by Design* theory acknowledges that the means of communicating in these new contexts is about the ‘complex relationships between print mode

and visual and spatial and how these relationships are used to communicate ideas' (Kalantzis & Cope, 2005, p.102).

Kalantzis and Cope define their new theory of learning as an epistemological one based on two conditions as indicators for success in learning—'belonging' and 'transformation'. Belonging to the curriculum means that the learners' unique identities are accommodated in learning encounters, curriculum content and settings in ways that connect their lived experience with what is being taught. This is crucial as Kalantzis and Cope (2005, p. 43) maintain that 'a learner will not learn unless they "belong" in that learning'. The second condition of transformation is necessary in learning environments as learning must also take the learner from what is known and experienced to a position of new understanding and knowledge—changing the learner in a significant way (Kalantzis & Cope, 2005).

In the *Learning by Design* approach, learners' identities are conceptualised from two different entry points. Kalantzis and Cope's (2005) 'two lenses' on diversity show how a student's differences may be described, on the one hand from a gross demographic set of circumstances and, on the other, through the intersection of these socio-economic markers with personal and cultural characteristics such as learning style, values or sensitivities etc.

Kalantzis and Cope situate this new approach to learning against a backdrop of the legacy of traditional industrial-economy-based and progressivist classrooms. They place the needs of new learners at the forefront to show how learners and society have changed and that the diversity of students' life experiences due to their 'digital and global lifestyles' don't fit with the educational aims of a bygone era where there was success at school for some and for others it was 'passive boredom and failure' (Kalantzis & Cope, 2005). New learning environments are described in the form of a transformative curriculum where similar and optimum learning outcomes for the diverse range of learners are the aim. In a transformative curriculum effective learning environments connect with learners' dispositions and sensibilities but also transform them to new states of knowing and enhanced performance. Kalantzis and Cope (2005) contend that these new learning environments require effective teaching and learning translated as explicit, mindful, premeditated pedagogy that tie together these conditions of learning—in essence, a new approach to classroom learning.

Thus Kalantzis and Cope (2005) focus on four principles of *Learning by Design* which they claim are critical to success in education:

- Learners experience success when their *diversity* of life experiences, their ‘dispositions and sensibilities’ are acknowledged and mindfully factored into learning environments.
- The act of learning must be about *transformation*—about taking the learner from what is known and experienced to a deeper state of understanding—one that ultimately (through stages that are cohesive but intellectually challenging) traverses to new situations and new knowledge.
- Learners today require new capabilities to make sense of the relationships between the linguistic, visual, audio and spatial in multimodal communications—the design resources of *Multiliteracies*.
- *Pedagogy* needs to demonstrate overtly selected knowledge processes and learner pathways. It also needs to include an indication of visibly tracked learner performance.

The principles of *Learning by Design* are centrally tied in a pedagogical framework. This framework was constructed by Kalantzis and Cope from a need to translate Multiliteracies and *Learning by Design* theory into practice. It includes an extension of the Multiliteracies pedagogical techniques (New London Group, 1996) which Kalantzis and Cope have identified as ‘knowledge processes’—Situated Practice (learning through experiencing the known or experiencing the new); Overt Instruction (learning by conceptualising); Critical Framing (learning by analysing and critiquing); and Transformed Practice (learning by applying). The terminology used in the practical translation of their new learning approach in Table 2.2 below forms part of an emerging professional pedagogical language which has evolved through consecutive trials with teachers since 2003.

<i>Learning by Design Knowledge Processes</i>	<i>Multiliteracies Curriculum Orientations</i>
Experiencing the Known Experiencing the New	Situated Practice
Conceptualising by Naming Conceptualising with Theory	Overt Instruction
Analysing Functions Analysing Interests	Critical Framing
Applying Appropriately Applying Creatively	Transformed Practice

Table 2.2: Learning by Design ‘Knowledge Processes’ and Multiliteracies Curriculum Orientations

Using the ideas developed for the pedagogical framework, Kalantzis and Cope, created curriculum planning tools, including a ‘template’ employing Microsoft Word. The choice of

this particular program was driven by a concern for access and a need for teacher familiarity (Kalantzis & Cope, 2005) as teachers are encouraged to use the template as a prompt to consider mindfully and document their teaching practices using the ‘knowledge processes’ as a guide. Although this is primarily a means of classroom planning, it is also a way of reflecting on practice and writing up what has been taught in a way that can be shared with other teachers. The template also acts as a heuristic in that it allows teachers to discover ‘gaps’ or ‘narrowness’ in their practices for themselves (Cloonan, 2005; Neville, 2005).

2.4.2: Learning by Design Research

Pedagogical mentors from three Australian states or territories supported a group of teachers in a *Learning by Design* research trial from 2003–4. Outcomes of this research from the users themselves and Kalantzis and Cope’s research provided some initial understanding of *Learning by Design*’s potential use for teaching and learning. Cloonan (2005) found that the pedagogical framework helped individual teachers to take stock of their pedagogical practices through planning and reflection and to view pedagogy in a new way. These teacher developed learning elements, according to Cloonan (2005) are able to document what was once ‘tacit’ teacher practice and thinking for purposes of sharing with others and professional learning. Neville (2005) concluded that outcomes of the trial with a group of Queensland teachers highlighted three educational factors for teachers:

The first was the need to acknowledge the interests and prior life experiences of their students. Second, was a need to analyse the types and ranges of multimodal texts they were using. The third challenge was to consciously reflect upon their teaching practices to ensure that all knowledge processes were being covered over an extended period of time, instead of running the risk of favouring a few’ (Neville, 2005, p. 253–4).

Van Haren (2005) claimed that trial teachers in the Australian Capital Territory:

...felt the framework was sequential but allowed ‘a certain amount of flexibility and individual interpretation’, and once teachers were comfortable with the language and the framework it does become user-friendly and ‘a good motivator for teachers and students’ (Van Haren, 2005, p. 279).

The RMIT University research also provided some revelations about the trial to test the pedagogical framework in the field. Burrows (2005a; 2005b) contended that outcomes of the research uncovered the importance of professional development including hands-on

concentrated support for teachers new to the Multiliteracies and *Learning by Design* ideas. In addition, he also drew connections between teacher outcomes and the ‘local, accessible and sustained’ pedagogical leadership at each of the trial sites. Furthermore, Burrows (2005b) identified a potential model for professional development in *Learning by Design* based on the designs of the projects in each site.

The role of teachers in the research also suggests some key insights into the translation of *Learning by Design* theory into practice (Burrows, 2005a). One salient finding was that teachers reported that their pedagogical practice had increased to include the range of knowledge processes within *Learning by Design* theory and there also appeared to be a relationship between teachers’ new knowledge and new depth in student knowledge. Secondly professional forums where teachers come together to share and discuss their new learning and practice were seen to support the development of teacher learning about the translation of *Learning by Design* theory into practice (Burrows, 2005b).

2.5: Conclusion

The purpose of this chapter has been to synthesise the range of policy, theories and research issues pertinent to this study. The integration in the review of Queensland educational policy related to literacy and pedagogy, and research into professional learning, pedagogy, quality teaching, Multiliteracies and *Learning by Design* has justified the purpose of this study as the underlying principles of the project were based on a well established research core.

Investigations into the enactment of educational policy, quality teaching, professional learning, Multiliteracies and *Learning by Design* have revealed that they are all of high importance to multimodal literacy learning. It seems that much of this policy and theory has not been researched in classroom practice in Queensland. In fact, on close examination the nature of interpretation of policy documents and curriculum reform initiatives in Queensland schools might be inhibiting authentic Multiliteracies outcomes. The purpose of this study was to investigate the application of these areas of theory. Specifically it sought to reflect on the theoretical aspects in terms of practical application of Multiliteracies using the *Learning by Design* pedagogical framework.

Chapter Three

Methodology and Procedures

3.1: Introduction

This chapter will explain the methodology chosen for the research, the research design, the research context, the data collection, data analysis and ethical procedures.

3.2: Research Paradigm

The philosophical assumptions within the constructivist paradigm have guided the systematic approach to investigation in this research into the ways in which the *Learning by Design* framework facilitates the pedagogy of Multiliteracies and multimodal learning. Guba and Lincoln's constructivist research paradigm holds the ontological assumption 'that what is thought to be held "real" in lived experience is no more than a mental construction by an individual' (Guba and Lincoln, 1989, p.111).

The constructivist paradigm assumes a relativist ontology (there are multiple realities), a subjectivist epistemology (knower and subject create understandings), and a naturalistic (in the natural world) set of methodological procedures. Findings are usually presented in terms of the criteria of grounded theory (Denzin & Lincoln, 1994, pp. 13–14).

Constructivists believe that knowledge and truth are related to individual perspective and that constructions of knowledge are mental constructions and are not descriptions of the way things 'really are'. The constructivist philosophy acknowledges 'meaning in the existence (social realities) of multiple and often conflicting constructions' (Schwandt, 1994, p. 128). Using constructivist theory it has been possible to explore in what ways teachers choose particular pedagogical 'takes' in the *Learning by Design* Learning Element in order to facilitate Multiliteracies pedagogy and multimodal literacy in their classrooms. As the *Learning by Design* approach to pedagogy is new, the teachers' constructions of meaning have been ascertained both through individual and collective use of this framework.

In the study there have been three distinct phases of the research:

1. teachers engaged in professional learning and collaboratively planned a four week Learning Element;
2. teachers deployed what they had planned over four weeks; and
3. teachers shared and reflected upon their use of the approach to support multimodal learning after the deployment phase.

3.3: Research Methodology

The qualitative study described in this thesis was situated mostly in the classroom environment, however it was also conducted during professional meetings, online collaborations and teacher professional learning days. It was built on contact between the classroom environments, the teachers, the curriculum and the pedagogy, the online planning website, the students and the researcher. Case study methodology was chosen because it is a way of designing an inquiry which allows for multiple sources of evidence to be gathered from real-life contexts (Yin, 1984).

For many years case study has been one of the preferred methodologies for naturalistic inquirers (Guba & Lincoln, 1985, Stake, 1994). Furthermore, Merriam (1988) referred to case study methodology as having been proven to be somewhat beneficial for educational settings as a way of studying, evaluating or informing policy, programs and innovations. Similarly, case study methodology has been considered by those undertaking recent research in the area of Multiliteracies pedagogy in educational contexts (Bond, 2000; Chandler-Olcott & Maher, 2003; Cope & Kalantzis, 2000; Newfield & Stein, 2000).

Consideration of some key definitions of case study by prominent authors of research methodology was important to ensure the research methodology and design matched a case study scenario. Sturman (2001) claims that ‘case study is a generic term for the investigation of an individual, group or phenomenon’ (Sturman, 2001, p. 61). While Huberman and Miles (1994) interpret the ‘case’ to be studied in terms of the identified phenomenon and what happens with it in a bounded context. Merriam (1988) identified case study research as ‘an examination of a specific phenomenon such as program, an event, a person, a process, an institution, or a social group’ (Merriam, 1988, p. 9). And Stake (1994), while examining the words ‘case’ and ‘study’, defined them together as a twofold process of the researcher learning not only about the case but also about his or her learning.

Merriam (1988) provides further definition as a result of reviewing separate commentators. This observer contends there is a common thread in defining qualitative case studies.

According to Merriam's (1988) review, four key descriptors typify the important attributes of case study methodology. These descriptors are:

- *particularistic* because the case concentrates on the specifics of a particular event occurrence, plan or circumstance;
- *descriptive* because case studies provide 'thick descriptions' to describe and analyse the phenomenon;
- *heuristic* because case studies support reflection about the researcher's existing understanding and the emergence of new understandings about the phenomenon; and
- *inductive* because case studies depend on breakthroughs of new associations, ideas and considerations about the phenomenon being investigated (Merriam 1988).

One of the strengths of case study methodology is that it does not claim any prescribed methods for data collection (Stake, 1994; Yin, 1984). Data, whether it be quantitative or qualitative can be collected using any methods that suit the research (Merriam, 1988). According to Yin (1993) 'the important aspect of case study design is the use of multiple sources of evidence—converging on the same set of issues' (Yin, 1993, p 32). When a variety of sources are used to collect data, information about the phenomenon can be verified or extended (Hatch, 2002) which means triangulation can occur.

Triangulation according to Taylor and Bogdan (1998),

...is often thought of as a way of checking out insights gleaned from different informants or different sources of data. By drawing on other types and sources of data, observers also gain a deeper and clearer understanding of the setting and people being studied (1998, p. 80).

The case selection in this research is a collective, instrumental study by definition because it focuses on exploring multiple teachers' pedagogical choices using the *Learning by Design* framework. Stake (2000) has maintained that 'with even less interest in one particular case, a researcher may jointly study a number of cases in order to investigate a phenomenon, population or general condition... It is instrumental study extended to several cases (Stake, 2000, p. 437).

In a similar way, Berg (2001) suggests that collective case studies:

...involve the extensive study of several instrumental cases. The selection of these cases is intended to allow better understanding or perhaps enhance the ability to theorise about a broad context' (Berg, 2001, p. 229).

Issues about case study as a sound research methodology are well recognised (Guba & Lincoln 1985; Merriam 1988; Yin 1994). These commentators list as dangers case study researchers' oversimplification and exaggeration of events and a lack of researcher training in data collection methods (Guba & Lincoln 1985; Merriam 1988). Yin (1994) refers to three issues: influence of researcher bias; limitations in use for scientific generalisation; and the fact that case studies can take extensive time to conduct which in turn can create huge documentation to focus on and examine. To balance case study criticisms Stake (2000) has identified certain ideals such as bounding the case, selecting research questions, looking for patterns of data, triangulation, choosing alternative interpretations and forming assertions. According to Stake (2000) these are 'the major conceptual responsibilities of the qualitative researcher' (Stake, 2000, p. 448).

3.4: Research Design

3.4.1: The Case

The case in this investigation is exploratory (Yin, 1994) and was studied collectively (Stake, 1994) across three sites. The literature review has been used to give a clear idea of the general parameters of the phenomenon under investigation. The nature of the case is bounded by the collection of qualitative data within a given time frame of four months that links directly to the unit of analysis: Multiliteracies pedagogical choices using the *Learning by Design* pedagogical tags and embedded in that, multimodal literacy (Yin, 1984).

The interpretation of multiple constructions of meaning, using cross-case data displays (Miles & Huberman, 1994) was related to teachers' pedagogical choices at the planning, deployment and reflective stages of using the *Learning by Design* Learning Element template (see aim and scope of study Chapter 1.2.1). Case development occurred through the pre and post use of a four week *Learning by Design* Learning Element template, teaching of the Learning Element, conversations and interviews and student work samples that were produced as a result of engaging in the knowledge processes outlined in a teachers' planning. Triangulation has been used to confirm constructions of knowledge across multiple sources of data (Stake, 2000).

3.4.2: The Sample

Many constructivists look for samples where the phenomenon under investigation is most likely to take place (Denzin & Lincoln, 1994). Because no two classrooms or teachers are identical in how they plan curriculum and teach, sampling decisions were made using a ‘criterion-based selection’ (Burns, 1998; Cohen, Manion & Morrison, 2000) related to the particular factors that the research addressed. This study had three teachers, included in the sample because they voluntarily trialed the development, deployment and reflection of Multiliteracies in their classrooms using the *Learning by Design* approach over the period of a semester.

To understand the research question the investigation called for sampling that would show in what ways this new approach facilitates Multiliteracies pedagogy and multimodal learning. Pedagogical samples observed within each class were those which purposefully and conceptually (Miles & Huberman, 1994) supported the use of the *Learning by Design* knowledge processes and multimodal literacy. Variations in the samples were the range of year levels taught by the teachers included in this inquiry. Teachers who were not using this approach were excluded from the sample. This is what Bogdan and Biklen (1992) call purposive sampling ‘because they [the subjects] are believed to facilitate the expansion of the developing theory’ (Bogdan & Biklen, 1992, pp. 71–72)

The trial in this study was part of a wider professional learning project conducted by an Education Queensland Learning and Development Centre (Literacy) funded centrally through the Education Queensland Literate Futures Project. At the time of the study, the researcher was coordinator of this learning and development centre, responsible for the support and advice on systemic literacy initiatives to two educational districts in Brisbane housing over 80 schools. The research project was set up in partnership with Mary Kalantzis (RMIT University) and Bill Cope (Common Ground Publishing) to trial the intersection of Literate Futures initiatives with the *Learning by Design* theory and ideas. The three participants in this research were part of a group of ten teachers who voluntarily agreed to be part of the project in 2004. All three teachers and their school contexts have been given pseudonyms to protect their anonymity.

Teacher A is an upper primary teacher with over 20 years teaching experience in Queensland metropolitan schools. Very enthusiastic, soft spoken and eager to keep up to date with educational initiatives, Teacher A has a working relationship with the researcher having

participated in professional learning opportunities such as a critical literacy in the middle years' project and various literacy seminars in the previous two years that the researcher coordinated and sometimes delivered. Teacher A is considered a leading teacher in the school and has taken on extra responsibilities over the years in writing school policies for the English Key Learning Area and coordinating literacy at the school.

Teacher B is a secondary teacher specialising in English and Studies of Society and the Environment, who has taught for over 30 years in public and private, rural and metropolitan secondary schools. The researcher was known to Teacher B through a previous association with another colleague. Teacher B opted into this research project because of an interest in the work that various teachers had undertaken in 2003. In the initial interview it was stated that a desire to keep up with new initiatives in the field of literacy prompted the decision. At the time of the research Teacher B was also a member of the school's literacy committee.

Teacher C is a secondary visual arts teacher with over 12 years teaching experience in metropolitan secondary schools and has the position of Head of Department Middle School. The researcher did not know Teacher C prior to the commencement of the research as this teacher had only transferred that year to this new position in a school in the district where the research was being conducted. However the researcher was known to the principal and deputy principal at the school through previous work the researcher had conducted for school administrators in the district. Teacher C stated in the initial interview that the decision to opt into the research was made partly because of a desire to explore the possibilities of the theory and ideas in *Learning by Design* for the middle school teachers the Head of Department was responsible for and to forge better working relationships with other schools in the district.

3.5: The Contexts

The research was conducted at three different sites in the Brisbane metropolitan area. One was a P-7 school (Teacher A) and the others were secondary 8-12 schools (Teacher B and Teacher C). The year levels taught fell within the middle schooling range, confining the study to a particular phase of teaching and learning. These sites were chosen because the researcher had a professional working relationship with all three schools for a number of years. Another factor for this choice of sites was the knowledge that the teachers concerned would be planning tasks for students, which required multimodal text production. In the descriptions that follow the contexts have all been given pseudonyms in the interests of confidentiality

3.5.1: Teacher A's School Context

The context for deployment of Teacher A's Learning Element was based primarily at 'Easton Primary School', a medium sized State School of just over 300 students located in an affluent and reasonably new suburb of Brisbane. The school, built in the late 1980s with large grounds and open plan classroom blocks on single levels, is accessed by local students (Prep–7) who attend the school from 8.50 am–3:00 pm. Students at 'Easton Primary School' come from a generally middle class socioeconomic background, with two-parent family structures being the norm. The classroom in which Teacher A taught belonged to a block of two double teaching classrooms divided by a withdrawal room, converted into a computer lab. This particular double teaching area at the southern end of the block housed a Year 6 class at one end and Teacher A's Year 6/7 class at the other. Students' desks were arranged in groupings of 4–6 facing the blackboards at either ends of the classroom. The two classes shared a common carpeted area in the middle of the room and both teachers had their desks side by side on the eastern wall of the classroom. During the research Teacher A did not engage in any cooperative teaching with the Year 6 teacher at the other end of the classroom although they planned similar curriculum for their Year 6 students as was required by school policy. There were 9 year 7 students and 16 year 6 students in Teacher A's class.

3.5.2: Teacher B's School Context

'Castle Street State High School' is a large metropolitan school, where Teacher B taught English, Studies of Society and Environment and Mathematics. Situated in the western suburbs of Brisbane, this school is coeducational and has been established for forty years. Students at 'Castle Street High' come from a wide range of socioeconomic backgrounds, with two-parent, single-parent and independent-student family structures all represented in significant numbers. The majority of Teacher B's lessons during the observation period were undertaken in a Year 8 classroom on the bottom floor of a block of classrooms parallel to the school library. The classroom was average size with four rows of desks facing the front broken into two-three-two formation allowing for walkways in between. The classroom had bare painted walls except for some posters of New Zealand on the back wall. Desks all face the raised platform at the front of the classroom which had a long bench and behind that a whiteboard. During the research the classroom was equipped with a data projector, a laptop on the bench on the raised platform and TV/video machine on a trolley beside the bench. One observation was conducted in a computer lab in another block of classrooms about 100 metres away otherwise all other observations took place in this classroom. This particular

class for whom Teacher B's Learning Element was written was made up of Year 8 adolescents who came from a range of different primary schools the year before. In each observation lesson Teacher B insisted that these students line up in two lines outside the door and when they were silent and attentive they would be allowed to proceed in to find their desks.

3.5.3: Teacher C's School Context

'Midlands State High School' is based in a lower to middle socio-economic suburb in the western suburbs of Brisbane. The focus of the research was based in Teacher C's art classroom. Teacher C's focus in this project was on visual literacy. Each year 'Midlands High School' invited groups of students from the local primary schools to participate in enrichment courses conducted by specialist teachers at the secondary school. Teacher C decided to design the visual arts Learning Element for a group of Years 4 and 5 students from a local primary school who visited every Thursday afternoon for five weeks instead of designing the Learning Element for the regular class of secondary students. The reason for this decision was based on the fact that another teacher in the wider *Learning by Design* Project who was based at the local primary school was also writing and deploying a Learning Element for this group of students. The students involved in the research conducted at 'Midlands State High School' travelled to the school to access specialist art facilities and resources and to familiarise themselves with the high school setting.

Teacher C's art classroom was a rectangular shape in a double story teaching block at the secondary school. White art tables, with a width of 1 metre and having the height of an adult's hips, were arranged in a square horse shoe pattern with stools spaced out around the outside of the tables. There were large sliding windows on the eastern and western walls of this classroom and a timber bench directly under the eastern side windows. A painting of the Mona Lisa and assorted cardboard and a roll of large art paper were placed on a side bench. The blackboard was on the northern wall of the classroom. In addition there was a trolley with multiple shelves housing finished artworks and an easel at the side of the blackboard. There were a few artworks on canvas which were obviously still in progress sitting on the floor against the wall. The western side of the room housed a double stainless steel sink with high arching taps.

3.6: Research Procedure

The research was conducted during Semester 2, 2004. It took place over a four month period and included a professional learning and planning stage, a classroom deployment stage and a post teaching/reflection stage. Each stage of the project was organised by the researcher. For the first stage, the researcher, as Coordinator of a metropolitan Education Queensland Learning and Development Centre (Literacy), arranged a wider two day professional learning practicum on *Learning by Design* for 10 participating teachers. The three teachers in this study were part of this wider group. During this first stage the teachers were introduced to *Learning by Design* by Dr Bill Cope, one of the co-authors of the *Learning by Design* theory and ideas.

After this initial professional learning practicum, the planning stage lasted for six weeks. During this time teachers planned curriculum using the *Learning by Design* Microsoft Word Learning Element with the assumption that the planning would be ready to teach after the two week mid-semester school holiday period. The researcher arranged the second stage by advising teachers to contain their curriculum planning and delivery to a four-five week teaching block. Furthermore, the researcher secured mutually agreeable observation times with the three teachers. The final stage was organised by the researcher as a one day professional presentation, review and reflection day. Participating teachers had the opportunity to share and discuss their deployment of the *Learning by Design* ideas via their Learning Elements.

Central to the research procedure was the *Learning by Design* (Kalantzis & Cope, 2005) Microsoft Word Learning Element curriculum planning tool used by teachers to document the teaching and learning episodes in this investigation. The teacher designed Learning Elements were used to support the unit of analysis. Kalantzis and Cope (2005, p. 109) describe the Learning Element tool as an ‘open and flexible template for planning and documenting pedagogy in the form of a teacher and or learner oriented text’. Its design intention is to house a single topic within a consistent learning experience documented in teacher professional language on one side and translated as a student learning resource on the other (Kalantzis & Cope, 2005). Within the template are a series of planning prompts for teachers to consider.

These prompts begin with the intended ‘Learning Focus’, which includes the knowledge domain, scope of learning, learning level and prior knowledge of students. A second series of teacher prompts are the requested articulation of the ‘Knowledge Objectives’ to be

documented under the knowledge processes headings of experiential, conceptual, analytical and applied knowledge. In the third section of the Learning Element teacher prompts is the call for conscious decision making to be made about pedagogy or ‘Knowledge Processes’ to support the knowledge objectives. Finally two more prompts, one for the documentation of how knowledge will be assessed or ‘Knowledge Outcomes’ and the other to consider where learners will proceed with their new knowledge, or ‘Learner Pathways’, completes the pedagogical guidance within the Learning Element.

Figure 3.1: Learning Element Overview (reprinted from Kalantzis and Cope, 2005, p. 118)

While the Learning Element template provides teachers with pedagogical choices as knowledge processes (experiencing, conceptualising, analysing and applying), it does not prescribe set sequences for documenting pedagogy within each learning activity.

Figure 3.2: Learning by Design 'Knowledge Processes' (reprinted from Kalantzis and Cope, 2005, p.73)

Kalantzis and Cope (2005) maintain that pedagogical choices within Learning Elements need to be individually considered in light of the students' prior knowledge and the field of knowledge being explored and the *Learning by Design* Project Group (2005) also contend that, by offering the knowledge processes as choices but not prescribing what these might be for a given set of learning activities, teachers can reflect on their own decisions and perhaps uncover the existence of broad or narrow pedagogical practices for themselves. In this way the template is an heuristic to be used in the growth of teacher practice.

The Learning Element template is intended as a teacher authoring tool where teachers have the opportunity to publish quality assured digital curriculum documentation for online access by other teachers and students (Cloonan, 2005; Kalantzis & Cope, 2005).

Figure 3.3: Screen Grab of a Learning Element (reprinted from Kalantzis and Cope, 2005, p.112).

3.6.1: Data Collection

A range of qualitative methods were used to systematically collect data related to the exploration of teachers' pedagogical choices in the *Learning by Design* Learning Element to teach multimodal communication in their classroom, from multiple sources numerous times throughout a four-month period. This was to gain more than one perspective, to support triangulation and to achieve a fuller description for the case study (Yin, 1984).

3.6.2: Participant Observation

One of the major sources of data was participant observation (Atkinson & Hammersley, 1994; Bogdan & Biklen 1992; Merriam 1988; Yin, 1984). The researcher conducted overt observations during lessons over a five week teaching block in which teachers explicitly taught their Multiliteracies pedagogical designs. These lessons were observed taking field notes using Spradley's key headings for observational notes: space, actors, activities, objects, acts, events, time, goals, and feelings (Spradley as cited in Cohen, Manion & Morrison, 2000). Detailed descriptions of the phenomena under observation were enhanced by video taped data, in one case, and audio taped lesson data in all three classrooms. The researcher was mindful of criticisms held against the use of video data, particularly in relation to how video recording may alter people's actions and expressions (Taylor & Bogdan, 1998). Drafts of descriptions were shared with teachers via email to ascertain trustworthiness and authenticity in interpretations of events (Gobi & Lincoln, 1994; Stake, 2000).

3.6.3: Interviews

In addition the researcher conducted structured, semi structured and informal interviews (Began & Biklen, 1992; Fontana & Frey 1994; Hatch, 2002) to supplement the data collected through participant observation. Structured individual interviews were undertaken at the beginning of the data collection phase to gather common information about participants' views and practices concerning the learners in their classrooms and the aims of their curriculum designs. Informal interviews took place during the deployment phase about teachers' pedagogical choices and how they linked these to support multimodal communication. Semi-structured interviews occurred after teachers used and deployed the *Learning by Design* planning template (Kvale as cited in Cohen, Manion & Morrison, 2000). To validate interpretations (Maxwell as cited in Cohen, Manion & Morrison, 2000) participants were shown a summary no later than approximately 2 weeks after the data was collected.

Group interviews (Fontana & Frey, 1994) were also designed to allow the three teachers to interact with each other and allow their views rather than the researcher's views to dominate discussion (Cohen, Manion & Morrison, 2000). These interviews were about learning pre/post the *Learning by Design* teaching block. The first group interview was structured and aimed at finding out more about the teachers' ideas on learning prior to professional learning on the *Learning by Design* framework commenced. The second group interview took the

form of a structured peer review which allowed space for teacher interpretation and additional comments at a final meeting after the planning and teaching occurred.

3.6.4: Artifacts

Another important data source was the teacher planning and student assessment documentation (Yin, 1984). Artifacts included curriculum planning documents used prior to creating a *Learning by Design* Learning Element as well as chronological drafts of the *Learning by Design* Learning Elements teachers created. In addition the researcher gathered some of the multimodal student assessment products that were outcomes of the *Learning by Design* framework's planning and teaching.

3.6.5: Reflective Journal

A researcher reflective journal was maintained throughout the four month research period. This contained reflections about methods of observations and analysis, tensions, problems, possible ideas for further inquiry, daily schedule and notes on methodology (Bogdan & Biklen, 1992; Lincoln & Guba, 1985).

3.6.6: Data Analysis

Data Analysis 'involves organising, accounting for, and explaining the data: in short, making sense of the data in terms of the participants' definitions of the situation, noting patterns, themes, categories and regularities. Typically in qualitative research, data analysis commences during data collection process' Cohen, Manion and Morrison, (2000, p. 147).

The data analysis in this study was continually coded and analysed (Spradley as cited in Cohen, Manion & Morrison, 2000) through modified analytic induction which is when, according to Bodkin and Biklen, 'data are collected and analysed to develop a descriptive model that encompasses all cases of the phenomena' (Bogdan & Biklen, 1992, p. 70). Furthermore, it is through inductive data analysis that constructivists tend to analyse data (Fehring, 2002). The researcher working inside a constructivist paradigm, states Fehring, 'constructs, or reconstructs, meaning in relation to the research question' (Fehring, 2002, p.27).

Through this process and through an equal agreement between researcher and participating teachers data was analysed through the processes of data reduction, data display and conclusion drawing/verifying (Miles & Huberman, 1994) to develop plausible conjectures

(Yin, 1984) about the ways the *Learning by Design* pedagogical framework facilitated multimodal learning.

3.6.7: Ethics

Approval to conduct research at Education Queensland schools was gained in 2004, as was the RMIT University Ethics Committee approval. This approval for the qualitative research design involving humans required the researcher to conduct the research according to national ethical standards. Respondent verification, informed consent techniques and safeguards to protect the participants' identities through a guarantee of confidentiality (Fehring, 2002) covered the ethics surrounding the circumstances of this research design. The researcher was mindful of the importance of integrity, which placed the value of participants' well being as a primary consideration, their contribution to the research as secondary.

3.7: Summary

This chapter has revealed the philosophical and methodological design decisions of the investigation, the context and the data collection instruments. It has also offered a description of the curriculum tool by which the research into teachers' practice was fundamental.

Chapter Four

Professional Knowledge

4.1: Introduction

This chapter will report on the findings of the first part of study. This phase is discussed in the order that it took place, with the teachers' professional knowledge about Multiliteracies at entry into the investigation being followed by the collaborative planning stage. Vignettes have been chosen to illustrate significant interactions with Multiliteracies, multimodality, diversity and the *Learning by Design* knowledge processes, and the applications of these in the teachers' curriculum planning using the *Learning by Design* planning tool.

4.2: Teachers' Professional Knowledge at Entry to Project

The data collection in this study commenced with a pre-observation stage, which has been labelled as the *Professional Learning and Curriculum Planning Stage*. Initially, the three teachers completed an expression of interest about how their involvement in the project would support the deployment of Multiliteracies in their own school. This was to discover their motives for voluntarily opting into the project and their schools' prior work with Queensland policy initiatives including Multiliteracies.

The results of the Expression of Interest form, teachers' previous curriculum planning, the interviews and the group discussion were used to establish the professional thinking, curriculum decision making and prior knowledge of Multiliteracies of the teachers at their entry into the study. It was salient information for the study's unit of analysis—the *Learning by Design* Framework and its facilitation of the pedagogy Multiliteracies and multimodal literacy.

4.2.1: Teacher A

Prior to this project Teacher A had links to the work conducted by the Education Queensland professional learning centre for literacy (Learning and Development Centre, Literacy or LDC, Literacy), having participated in a previous LDC, Literacy action learning project in 2002. Although 'Easton Primary' was not a New Basics school, Teacher A had led its teaching staff

in *Literate Futures: Reading* (Queensland Government, 2002a), a professional learning document designed to raise awareness for literacy in new times, Multiliteracies and Luke and Freebody's Four Resource Model (1999; 2000).

It was evident in the expression of interest to join the 2004 project and in the initial interview that Teacher A saw the project as potential support for the deployment of Multiliteracies.

I may as well seek help through the project so that I can have access to more resources and more learning experiences that might be beneficial to me.

Although already possessing some knowledge of Multiliteracies, Teacher A was keen to explore this further, 'especially practical implications in a more intellectually challenging context'. Teacher A affirmed this interest to be a result of networking with two teachers from the 2003 *Learning by Design* Multiliteracies project and highlighted the fact that, after listening to these teachers' experiences, a personal decision had been made to plan a Multiliteracies unit at the end of 2003, as well as making another 'personal decision this year to do Multiliteracies unit with my students in developing a film'.

Teacher A's previous curriculum planning documentation presented this in the form of sequential activities and content rather than a selected and deliberate pedagogical repertoire design. This is an important finding in light of Teacher A's professional understanding about the alignment of curriculum planning to curriculum delivery and provides insight into the initial problems faced when trying to document curriculum within the *Learning by Design* pedagogical framework.

Analysis was made of one of Teacher A's integrated curriculum plans from 2003 to examine whether there was any exploration of Multiliteracies (diversity, multimodality and the knowledge processes) and assess their significance in Teacher A's conscious curriculum planning. The plan, 'Displaced People and Global Support', shown in Figure 4.1 below, presents an outline of the intended learning outcomes and unit overview in this previous planning artifact.

Displaced People and Global Support

The Learning Outcomes

For students to have an understanding of some of the complex and inter-related issues behind the problem of displaced people, and a critical appreciation of these issues from a number of different perspectives.

It is intended that students gain insights into their own thinking and values and to be able to place the issue of displaced people within the broader context of global support and to consider Australia's obligations as a member of the international community from an informed stance.

Unit Overview

This multiliteracy unit explores the high profile issues of Displaced People and Global Support by integrating English and Studies of Society. The reading texts for this unit draw heavily on the popular press and focus on recent articles in magazines, newspapers, television programs and web sites. Although the content of material sourced from the popular press changes very rapidly depending on current issues, we have provided a framework for approaching reading and viewing materials that allows for particular development in critical literacy and can be transferred to new material as required.

Many of the activities were chosen because they are interactive and promote all the elements present in the Intellectual Quality component of Productive Pedagogies (Higher-Order Thinking, Deep Knowledge, Deep Understanding, Substantive Conversation, Knowledge as Problematic, Metalanguage).

Figure 4.1: The Learning outcomes and unit overview of Teacher A's curriculum plans for Year 7 class in 2003.

The learning outcomes and unit overview reflect a level of conscious understanding of the depth of the topic to be explored. In this overview Teacher A draws attention to the reading practices within the unit being mostly supplied by popular press publications and suggests that they are supported by a 'framework that can be transferred to new material as required' which, revealed further into the unit, is the Four Resources Model. The Productive Pedagogies are cited, with claims that the activities in the unit promote all the elements within this Queensland systemic pedagogical framework.

Unlike the *Learning by Design* planning tool, however, Teacher A's previous curriculum plan did not mention the former learning or recommended prior knowledge of learners. Even though it was clearly stated that all the elements of Productive Pedagogies were present in the unit, Teacher A did not commence the curriculum plan with a recognition of the differences (one of the major domains of Productive Pedagogies) of the class for whom the curriculum was planned. This was an interesting insight into Teacher A's conscious thoughts on what should be a priority in the documentation of a curriculum plan.

What this omission could suggest is that when Teacher A planned curriculum prior to the involvement in the *Learning by Design* Project, a written reference to Productive Pedagogies was really a reference to a tacit knowledge of what counted as Productive Pedagogies and not

a reference to tangible, documented, appropriately tagged learning experiences that demonstrate the kinds of pedagogy that allow for recognition of difference.

Further evidence of this previous gap in articulated pedagogy was found in the objectives section of 'Displaced People and Global Support' (Figure 4.2 below). These objectives were written as Level 4 Queensland Studies of Society and Environment (SOSE) Syllabus outcomes. No explicit indication of the type of knowledge students would gain is evident. Through a deeper analysis, although not explicitly tagged as such, the verbs in the outcome statements were mostly about applied knowledge (use, express, illustrate); one was related to conceptual knowledge (classify); and another was about analytical knowledge (critique). This translates to a popular way of curriculum planning in Queensland, based on a set of outcomes that, in and of themselves, might or might not allow for students to come to know some deep understandings about the core content of the unit, in this case, Displaced People and Global Support.

Outcomes

TCC 4.2: Students illustrate the influence of global trends on the beliefs and values of different groups.

TCC 4.4: Students critique information sources to show the positive and negative effects of a change or continuity on different groups.

PS 4.4: Students use latitude, longitude, compass and scale references and thematic maps to make inferences about global patterns.

CI 4.5: Students express how material and non-material aspects of groups influence personal identities.

SRP 4.5: Students classify values that underpin campaigns and organisations associated with human or environmental rights.

Figure 4.2 Objectives for Teacher A's Previous Planning Artifact

The 'Displaced People and Global Support' curriculum plan clearly shows a series of activities in the unit organisation headings titled 'Orienting', 'Enhancing' and 'Sythesising' (not shown in either Figure 4.1 or 4.2). Despite this, Teacher A's choices for teaching and learning were not made explicit either personally or to other teachers. There are many activities for teachers to conduct if they are to use this curriculum plan, however, if this plan was to be deployed by another teacher at a micro teaching level, a sense of the depth and breadth of the knowledge would not be clear. Further analysis, carried out by interpreting the activities, found different knowledge processes at play but these were not consciously used to tag teaching and learning in a way similar to that of the *Learning by Design* tool, which

prompts teachers to ask questions about the choice of knowledge processes. Therefore it is not obvious in Teacher A's curriculum plan if learners were being taken on a journey in steps they could achieve (Kalantzis and Cope, 2005).

Finally Teacher A did not specifically address student diversity in this planning artifact. Unlike the *Learning by Design* tool, there is no section in Teacher A's planning framework for learner pathways as a consequence of the learning. Similarly, the assessment focuses on students achieving Level 4 outcomes in the Studies of Society and Environment syllabus. Perhaps all the students in the class had successfully achieved at Level 3, however, if they hadn't done so prior to this unit of work, the choices given by Teacher A made might have, in fact, placed restrictions on successful completion of the assessment by all learners in the class.

Interestingly, during an initial audio taped interview in the pre-observation stage, Teacher A referred to the needs of this 2004 class as a group that needed to be stretched intellectually 'because they were thirsty to learn' and expressed a wish that these students would become independent people. Teacher A highlighted the tendency of students from this middle class suburb to be unaware of other value systems, thus demonstrating a need for students to have their minds opened to people of other value systems in terms of experiences and life.

Well even though to an outsider it might appear that we have a fairly homogenous clientele. I've got a range of abilities in my class that's probably not as great a range as some teachers in some classes' experiences but certainly my children have different needs in regards to their levels of literacy and their levels of numeracy. They also have slightly different life experiences and they have different opportunities afforded to them because of that. So I still will have to cope with a range of learner diversity and take that into account of my planning.

Although Teacher A's articulation of the connection of Multiliteracies to diversity was apparent during the interview, this was not the case in the previous planning artifact. Upon clarification of this fact, Teacher A stated that details of diversity are always considered in day to day literacy and numeracy planning but felt that there wasn't a need to include that in the curriculum plan itself. Nevertheless, this was, Teacher A stated, a 'multiliteracy unit', a revealing comment in light of Teacher A's possible understanding of Multiliteracies as being solely linked to notions of multimodality.

Given the circumstances of Teacher A's previous experiences upon entering the project it was evident in the interview, in the submitted Expression of Interest form, and in the planning artifact, that this was a highly professional teacher who aimed for quality in all work and quality learning for all students. While the previous curriculum planning was scant in terms of pedagogical choices and diversity, Teacher A's knowledge base and skills upon entry to this study were convincing. This was due to the fact that presentations had been already accessed from 2003 *Learning by Design* Project teachers and some of this work replicated on clay animations in Teacher A's own classroom.

It could be said from this data that Teacher A was a teacher who looked for ways to extend the students' repertoire of literacy practices before entry into this project. Therefore, at entry level to this project Teacher A was already indicating signs of committed professionalism and was cognisant, to a certain degree, of the 'why' of Multiliteracies, although was not fully aware of the 'what' and 'how' of Multiliteracies (New London Group, 2000).

4.2.2: Teacher B

Present in Teacher B's Expression of Interest form and initial interview were references to the project providing the potential means for professional learning and this teacher's voluntary involvement was sparked after exposure to the *Learning by Design* work undertaken by teachers in 2003. Participation, Teacher B stated, would allow existing teaching skills to become 'more in line with modern thinking' on Multiliteracies and, as a result, this would 'benefit my lessons'. In addition, it was affirmed that teaching Multiliteracies was linked to the school's Whole School Literacy Strategy and that the cultural diversity of the student population required the students to use the 'literacies of social and cultural diversity'. Although this was not a 'New Basics' secondary school, one of the 'Castle Street State High School' goals, according to Teacher B, was for all teachers to use 'a broad multimodal instructional approach with students'.

Teacher B's previous curriculum planning (see Figure 4.3 below) indicates the presence of an already conscious understanding of the need to incorporate Multiliteracies documentation upon entry to the project. However, curriculum ideas could be seen to centre around covering content, gathering resources, and sequencing a set of activities to lead to an assessment task. An analysis of Teacher B's curriculum design provides an approaching sense of how aspects of Multiliteracies such as diversity, multimodality and pedagogy, and the knowledge processes of teaching and learning were being addressed prior to use of the theories and ideas

of *Learning by Design*. What is most noticeable in the particular exemplar of Teacher B's documentation in Figure 4.3 below is an omission of the planning for the diverse needs of students and the scoping of the pedagogy to account for this (Kalantzis & Cope, 2005).

ENGLISH

UNIT: REPORT ON AN EVENT AT SCHOOL

ASSESSMENT:	Students will be required to structure a series of paragraphs to create a written news report covering a specific event. Students will be required to produce an oral news report covering an aspect of the event.
Knowledge required:	Declarative—what Procedural—how Conditional—when and why to apply
Students will need to:	Acquire information Organise the information Recall necessary information Demonstrate use of that information—assessment

Texts used by students	Features students need to understand
<p>Elements 1</p> <ul style="list-style-type: none"> • <i>Wanted</i> by Robert Jordan • Short Story, <i>A One-Man Dog</i> by William Bankier • Samples of news reports selected from several sources • <i>Clue</i> • <i>Murder She Wrote</i> 	<p>As required for basic writing skills</p> <p>Listening observation, description, reproduction of description</p> <p>Paragraphs, descriptions, vocabulary of crime, murder, mystery</p> <p>Specific structure of a news report i.e. who, what, when, where why, how as per the inverted pyramid</p> <p>Viewing with a focus on clues both formal and informal, interview process, acquisition and recording of information to be used later, various methods of describing a person e.g. physical and psychological</p>
Specific skills, vocabulary, language and terminology to be explored and explicitly taught	
<p>Topic sentence</p> <p>Punctuation: Capitals, commas, full stops, direct speech</p> <p>Reporting indirect speech</p> <p>Active and passive voice</p> <p>Observation</p> <p>Recording information</p> <p>Research associated information</p> <p>Language of crime as per glossary for short story</p> <p>Terminology associated with news reports: headline, by-line, column, caption</p> <p>Computer skills require to produce final report: Bold, font size, spell check, columns, justification, importing a picture</p>	

Skill to recognise the difference between written and spoken language
Sequencing: first, second, later, finally
Compare and contrast: the best, the worst, although
Reason: as a result of, because of, caused

Strategies to be used in teaching	Processes needed to learn
Modelling Scaffolding Cause and effect Group consultation Audience + purpose = language used	Analysing multimedia texts Examining vocabulary and terminology Group discussion and planning Providing structured overviews of texts Identifying audiences and purposes Establishing criteria for success Receiving and responding to feedback
Processes to demonstrate learning:	
Discussing, noting, planning, sequencing Drafting, revising, proofreading, editing written work Planning, rehearsing and presenting an oral evaluation using strategies such as: projection, variation in tone and pace and use of cue cards and visual aids as necessary	

Figure 4.3: Overview of Teacher B's English Teaching plan for Year 8 Students in 2003.

The first point about the planning artifact overview presented in Figure 4.3 above is that it uses a planning framework which lists 'assessment', 'textual resources', 'skills to be acquired', 'teaching strategies' and 'processes to be learned' but is vague about the specific pedagogical repertoire for curriculum delivery. The fact that the learning experiences are not tagged with an explicit pedagogical language to foreground the processes for the acquisition of knowledge in the teaching and learning provides some evidence that Teacher B's curriculum planning still prioritised a focus on content, skills and activities. Furthermore, any references to the knowledge required in this unit are very general: 'declarative, procedural and conditional'. The documentation makes it clear that students will need to 'acquire', 'organise' and 'recall' information, and 'demonstrate' the use of that information in a prescribed way. However, in this curriculum planning instance, the written document indicates that pedagogical selection is implicit. This is important in terms of this study because, in effect, the students' build up of knowledge throughout the unit of work is neither monitored nor strategically tagged (Kalantzis & Cope, 2005).

References to Multiliteracies (not shown in Figure 4.3 above) in this curriculum plan are made at one point next to a lesson where students view the movie *Clue*. The interpretation of Multiliteracies in this section appears to relate to the use of a multimodal textual resource. Teacher B does not detail any pedagogical processes other than experiential knowledge—'a

description of the suspects in the text’—acquired from viewing the video. It would appear, therefore, that the interpretation of Multiliteracies held at this time was that this was about the use of a variety of modes and media in the classroom rather than a matter of pedagogy. The existence of this narrow definition is reinforced by the desire expressed in the initial interview to become ‘more in line with modern thinking’; a statement that also points to an awareness of the need to explore the different types of practices associated with Multiliteracies and incorporate these new ideas in future curriculum planning.

Noticeably, the documentation in Figure 4.3 above makes references to assessment, indicating that assessment was selected and designed on the basis of curriculum content—writing and presenting a crime report appropriately. This is an important observation in that assessment was about an appropriate application of a genre. No other ways of coming to know about crime reporting such as experiential, conceptual, analytical or creatively applied knowledge (Kalantzis & Cope, 2005) were outwardly addressed in the assessment requirements. Another salient finding from the curriculum documentation in Figure 4.3 above relates to the scope for learner transformation, this being uncertain in Teacher B’s plan because the students’ prior knowledge, that is whether they could already write crime reports for a newspaper or had experience writing other newspaper reports, was never stated. This could have impacted on the way all students learned and might have had a negative effect on the reports that students created. The omission of any reference to the students’ diversity of experiences in any part of the document is revealing in terms of whether there were optimal conditions for engagement with the curriculum for all students (Kalantzis & Cope, 2005). This last point was to provide an extremely important baseline as Teacher B commenced the *Learning by Design* Project in 2004.

Teacher B’s particular focus class in this 2004 study was going to be the Year 8 Form Class for whom Studies of Society and Environment and English were taught. In the initial research interview, Teacher B felt that there was a need for the researcher to be aware of the class’s problems, as the learner diversity in the class was difficult to understand because the range of ability was so great. Reference was made to the need to be aware of any testing that students had undergone and the need to work with Learning Support teachers who could actually help students with learning difficulties. Teacher B made reference to children, ascertained to be on the highest level of the state diagnostic levels for learning or speech impairment, just ‘sitting’ in classes at the school. Commenting about this situation, Teacher B said that although it was ‘dreadful sometimes’, this had to be accepted as a given state manifesting itself in

behavioural issues rather than a phenomenon requiring specific address during curriculum planning.

During an audio taped interview on the initial professional learning day, Teacher B had expressed the following thoughts about the needs of learners and the kinds of people they would hopefully become:

My learners have lots of specific needs. Although we are situated in an extremely affluent area we draw from the poorer population we have no real academic kids ah the ones who come to us are have often had really serious problems in primary school... so these kids really do have lots of needs um they are reluctant learners they are anti-school so that's got to be taken into account. What would I like them to be? I'd like them to be less aggressive, more giving sort of people, more socially aware, socially just individuals.

Teacher B's desires for 'Castle Street State High School' students to be 'less aggressive', 'more giving' and 'more socially aware' reveals the existence of a personal struggle with the social behaviours such students were displaying rather than their achievement in class. Interestingly, Teacher B was to reiterate the declaration that there are 'no real academic kids' throughout the discussion and make similar reflections about these students at other times during the course of the investigation.

An appraisal of Teacher B's professional entry level into the 2004 *Learning by Design* Project demonstrates a willingness to take on new professional learning backed by a personal desire to extend teaching skills and shows that some initial consideration had already been made into the need to adopt a broader approach to teaching literacy. Importantly, any depth of knowledge about key aspects of Multiliteracies in their previous curriculum planning was not apparent.

4.2.3: Teacher C

At the time of this research Teacher C was teaching at 'Midlands State High School', a secondary school where curriculum was organised under the traditional Key Learning Areas of English, Mathematics, the Arts, Health and Physical Education etc. However, because Teacher C had only recently transferred to this school from a previous position in a New Basics trial school, it was necessary that a copy of an overview of a visual arts contribution to a 'New Basics Rich Task' from Teacher C's previous school would be used to ascertain prior Multiliteracies curriculum planning in this particular case (see Figure 4.4 below). Using this,

the researcher was able to contextualise the curriculum planning format and curriculum outlines that had guided Teacher C and the other secondary visual arts teaching colleagues' curriculum planning and delivery prior to involvement in the 2004 *Learning by Design* Project.

Art Unit: Year 9 Collage

<p>Overview: By considering language components (words & letters) as abstract elements, students rework, distort and explore their expressive and formal potential.</p> <p>Students explore cultural context and uses of scripts and symbolic codes.</p>			
<i>Organising ideas & themes/structure</i>	<i>Media</i>	<i>Making assessment</i>	<i>Appraising assessment</i>
<p>Discussion of cultures that generate diverse scripts: calligraphy, inscription etc.</p> <p>Collection, display of sample scripts from range of sources.</p> <p>Discuss issue of encryption: codes and secret languages.</p> <p>Students create repertoire of mark-making using “calligraphic” and other techniques.</p> <p>Teacher directs range of experimental activities.</p> <p>Students nominate texts, words, names, titles etc. as a starting point. They encode or encrypt by reorganization, overlapping, reversal, abstraction, re-sequencing, transparency etc.</p> <p>They consider the design elements and principles and formal qualities of the works as they develop. Composing works applying principles including repetition, scale, radiation, pattern, spatial awareness etc.</p>	<p>Calligraphic exercises using improvised tools and grounds.</p> <p>Collage of “found” text elements</p> <p>Enlargement, random cutting and reconstruction of texts.</p> <p>Use of relief or embossed elements. (clay tablets)</p> <p>Use of stencils and masks</p> <p>Improvised printing</p>	<p>1. Experimental panels using stencilling, sgraffitto, calligraphy, collage etc.</p> <p>2. Team panels: work in creative teams to devise code and encrypt messages and construct “panels” based on:</p> <ul style="list-style-type: none">• Hieroglyph• Runes• Calligraphy• Digital codes (barcodes) <p>(Extension: computer-generated scripts; games and personal books.)</p>	<p>Students collage script samples in journal.</p> <p>Journal documentation of formal + expressive elements of scripts.</p> <p>Apply elements to decorate or personalize journals.</p>
<i>Visual Literacy</i>	<i>Media/ICTs</i>	<i>N.B. referents</i>	
<p>“Reading “ and devising symbolic codes; exploring formal and expressive qualities of elements and principles, esp. line, texture + pattern.</p>	<p>Internet research.</p> <p>Generation of images using computer scripts.</p>	<p>Intercultural understanding;</p> <p>Appreciating diverse interpretive frameworks</p>	
<i>Resources</i>	<i>Cultural Context</i>		
<p>Internet: graffiti + stencil art.</p> <p>Selected artwork from diverse cultures/timeframes</p> <p>Rosalie Gascoigne. (Roadsigns)</p>	<p>Graffiti and stencils.</p> <p>Typographic design & layout.</p> <p>Scripts: Asian, Arabic, Runic, Egyptian, medieval and contemporary.</p> <p>Students examine at a range of modern and ancient scripts, symbols, hieroglyphs and cipher</p> <p>Surrealist text games: “Exquisite Corpse”</p>		

Figure 4.4: Example of Teacher C’s Previous Schools’ Visual Arts Curriculum Plan Overview

The curriculum design in Figure 4.4 above provides a documentation of how the Visual Arts learning area planned curriculum overviews within a New Basics trial school and, because Multiliteracies and Communications Media is one of the four 'New Basics', this artifact could be used to provide understanding of the level of engagement with Multiliteracies in Teacher C's previous curriculum designs.

An analysis of this document indicates that a tabular 'framework' accommodates section headings for 'Organising ideas, themes and structures', 'Media', 'Making assessment', 'Appraising assessment', 'Visual Literacy', 'Media/ICTs', 'New Basics referents', 'Resources' and 'Cultural Context'. The content under these headings demonstrates that, to a certain degree, the 'why' and 'what' of Multiliteracies (New London Group, 2000) has already been taken into account by Teacher C. For example, the inclusion of the heading 'cultural context' makes links to cultural and linguistic diversity in artistic script writing. In addition, references to multimodal textual practices such as 'encryption codes and secret languages'; 'repertoire of mark-making'; 'encode or encrypt by reorganisation, overlapping, reversal, abstraction, re-sequencing, transparency etc'; 'composing works, applying principles including repetition, scale, radiation, pattern, spatial awareness etc.'; 'reading and devising symbolic codes; exploring formal and expressive qualities of elements and principles, esp. line, texture + pattern' all provide a detailed description of what elements of design and the 'what' of the form and function (Kalantzis & Cope, 2000, Kress, 2000a) of the planned multimodal assessment piece have been employed in this curriculum plan overview.

What is not evident in this curriculum plan overview, however, is a consideration of learner diversity entry points into the learning experiences. Nor is the 'how' of Multiliteracies, a pedagogical repertoire for coming to know about multimodality in a visual arts context, included. While the researcher can identify some multimodal indicators of Multiliteracies, a presence which would have been expected in the Visual Arts Department and in a New Basics school, the plan is essentially a list of activities and content for a visual arts and visual literacy course of work.

In the initial research interview the researcher had asked why Teacher C had wanted to be a part of the *Learning by Design* project and what benefits were expected from this involvement. In reply, Teacher C had stated:

Ok as an art teacher I have always been naturally interested in visual literacy and have emphasised that in my teaching so it clearly fits into the topic here. But I'm

also interested in communication, right, so visual communication is really important and I know that there are many other modes of communication to tap into different ways people respond to different things in society. So I'm very interested in finding out how to get information across to people according to their particular learning styles. I'm also interested in tapping into these other modes because I have to work across different subject areas as well so I want them to work outside their usual confines I suppose and also understand that people experience the world and learn in different ways.

This transcript indicates that Teacher C's conscious thoughts about Multiliteracies were related to multimodality, 'modes of communication' and 'visual literacy', as was evident in the previous planning artifact in Figure 4.4 above. Importantly, there was a certain amount of recognition 'that people experience the world and learn in different ways', existing alongside an awareness that there was something more to learn by being involved in the Project—something at this point was unknown that would facilitate 'tapping into these other modes because I have to work across different subject areas'.

At the time of the first professional learning day Teacher C had not yet met the primary students for whom the Learning Element was being planned. However, in the initial audio taped interview, reference was made to the needs of learners at 'Midlands State High School' in terms of stability, which it was said, they didn't have at home. Teacher C also said in this interview that the students at 'Midlands' needed structure in their lives, routine, emotional support and good role models for appropriate forms of behaviour. The goal was for students to become, first of all thinkers and, then, critical thinkers: 'I need them to think beyond their back yards so that they can be happy and confident enough that can make a contribution to the wider world.'

On the initial professional learning day Teacher C began to have conversations with the local primary school teacher, who was also participating in the 2004 *Learning by Design* Project but was not a subject in this study. In so doing, important information was gleaned about the learner diversity in the particular group of students who were to be taught during the next term.

Well the students I'm working with at the primary school they are an above average in ability grouping in literature. So... um... they are going to make a film and I'm going to reinforce what they are doing with... um ...a photo montage. So as far as literature goes their reading ability is good. As far as other modes of literacy, their visual modes I have no idea at this stage but they are an

above average intelligent lot so I'm sure that they'll be able to understand pictures as opposed to well I don't know how they'll be at making pictures at this stage.

Coming to the project with previous experience at a New Basics school and high level skills in visual literacy as a qualified and experienced secondary school visual art teacher, it is apparent that Teacher C already had a strong knowledge base on which to build new professional learning on Multiliteracies. This knowledge allowed prior connections to be made between the visual art curriculum and the multimodality aspect of Multiliteracies. There was an awareness that Multiliteracies should be seen in terms of different ways of communicating and that these related specifically to the life experiences of different people. Clearly prominent in Teacher C's expression of interest to join the project was the aim to embrace Multiliteracies as part of the position of Head of Department Middle Schooling, indicating that from the outset this teacher could be considered to have a high level of expertise in both visual literacy and curriculum leadership. This was to make a considerable difference to the way Teacher C, in comparison to Teacher B and Teacher A, planned for and deployed multimodal literacy within the *Learning by Design* curriculum plan during the next stage of the project.

4.2.4: Generalisations of Teachers' Entry Level Profiles

Indications from the three teacher profiles at the commencement of this study show that these teachers voluntarily became involved in the project because they did not want to be 'left behind' not only in terms of their knowledge base on Multiliteracies but also in terms of the need to master new developments in deploying Multiliteracies in classroom practice. This was important in terms of the outcomes of the project because they were all extremely highly motivated to learn.

It was also clear that all three teachers wanted to keep currency with new research in their professional work and that, prior to the project, all three teachers had varying levels of theoretical knowledge of how Multiliteracies was related to diversity and multimodality. However their knowledge of the pedagogy of Multiliteracies was not mentioned in interviews, discussions, in their Expressions of Interest forms, or in their previous curriculum planning. This lack of reference to the pedagogy of Multiliteracies, however, could have been a consequence, in part, of the recent Queensland professional learning materials delivered to all state schools. These materials discussed the use of the Four Resources Model (Queensland Government 2002a) and Productive Pedagogies (Queensland Government 2003) as possible

theories and frameworks for deploying Multiliteracies and curriculum. Another reason that the pedagogy of Multiliteracies or a pedagogy for the teaching of Multiliteracies was not documented, at least in Teacher A and Teacher B's previous curriculum planning, could have been related to the fact that, despite referring to Multiliteracies in earlier planning, in two instances the use of language based theories were employed to inform their planning formats (Kress, 2000a). Teacher A used a familiar linguistic genre approach framework to describe the 'multiliteracy' unit of work on 'Displaced People and Global Support' and Teacher B's prior planning artifact focused on detailing the sequence of activities for students to understand how to replicate the written genre of newspaper reporting.

This planning framework, organised into Orienting, Enhancing and Synthesisng stages and commonly used by teachers in Queensland, does not prompt teachers to repeatedly articulate the different knowledge processes students would need in order to be transformed as developing 'multiliterate' students (Kalantzis & Cope, 2005). Rather it prompts teachers to list activities under different phases. The first, the orientation into the genre, is followed by the enhanced understanding or deconstruction phase, that predictably leads to the final stage at which replication of the genre is considered to be a synthesis of understanding. This practice—referring to Multiliteracies in a curriculum plan but not changing the usual planning practices to engage with diversity, pedagogy or the form features and cultural contexts of the multimodality in the texts prescribed (Kalantzis & Cope , 2000, 2005, Kress, 2000a)—can be interpreted as an instance of 'low road transfer' or 'productive tinkering' (Thompson & Zeuli, 1999). This 'productive tinkering', evident in Teacher B's and Teacher A's previous curriculum planning, related to their interpretations of Multiliteracies as a systemic requirement that was being enacted quite convincingly from the evidence as a documentation of a multimodal makeover.

This was not the case in Teacher C's planning format, probably for a reason that can be explained on two fronts. Firstly, the researcher acknowledges that many secondary school visual arts teachers would not be influenced by language based theories and approaches to teaching literacy and, secondly, conditions are ripe for the development of multimodality and fundamental to the field of knowledge in the visual arts. In contrast, multimodality has not been respectively accommodated historically and has not been clearly articulated as fundamental to the field of knowledge in most of the learning areas Teacher A and Teacher B had taught prior to joining this project.

4.2.5: Summary of Teachers' Entry Level Profiles

In summary, from the data collected the teachers in this study can be seen to be open to new challenges and to be actively seeking a more practical way of deploying Multiliteracies than they had been offered in previous inservice and professional learning materials. All three teachers can be classed as competent, respected teacher leaders in their respective schools. They demonstrated that they wanted not only to use the project knowledge for their own curriculum delivery but to help them with their other leadership roles in their schools. In essence, they see themselves and their involvement in the project as expanding their repertoire of professional knowledge and practice for new requirements for Multiliteracies.

The entry level of these teachers in this project suggests that they were already willing, innovative, reflective and looking for new and more in-depth input to guide their classroom practice with Multiliteracies. Due to the fact that they had to apply to join the project, the degree of professionalism was high even before the professional learning commenced. The evidence suggests, and has since been substantiated by their responses, that they were looking to intervene in their own professional learning to become better equipped to deploy Multiliteracies in their teaching contexts. There were a lot of tacit things going on in terms of the rich knowledge they brought to the project and, although the teachers' prior planning suggested they were striving for deep learning in their classrooms, their curriculum plans still showed a focus on higher order content and specific activities without a process for Multiliteracies pedagogy. The aim of the project was to capture these missing and unrecorded processes for teaching and learning about Multiliteracies.

4.3: Teachers' Professional Knowledge During Collaborative Planning Stage

During an interview on the second professional learning day, when the teachers had had time to reflect on the *Learning By Design* materials, Teacher A, Teacher B and Teacher C were all asked separately about the aims of the Learning Elements they were about to plan.

Teacher A: The aims of my Learning Element are for the kids to have an understanding of service and justice. An understanding of Australian justice systems and why we need them.

Teacher B: Basically I'd like the students to be aware of how they are represented in society by different um medias and how they would like

themselves to be represented within society by using a Web Page and how that operates.

Teacher C: To provide specialised experiences in visual literacy.

It was apparent from the teachers' responses at this stage that none realised that the *Learning by Design* tool they were about to use was going to require a significant shift in thinking about curriculum planning—the intentions of the scheduled two-day professional learning input. The idea of the use of knowledge processes to capture different ways of knowing and how multimodal literacy and the accommodation of diversity could be delivered through those knowledge processes was not articulated by any of the teachers. Whether they were already thinking in that way or not, they did not offer any direct reference to *Learning by Design* theory they had been exposed to over the last two days when discussing their aims. Nor did they express in this interview any doubt about successfully completing a Learning Element with new terminology.

The researcher kept in constant email contact and visited the three teachers during this next collaborative planning phase. For the following six weeks, until the end of Term Three, the teachers used the template to start mapping out the four week teaching block that was to be part of the project. Teacher B and Teacher C, the two secondary teachers, had completed a solid draft version of their Learning Element by the end of the term. All had discussed what they were considering in terms of content at the professional learning days and during this stage this did not change.

4.3.1: Teacher A

Teacher A did not find it easy to use the new professional language to explicitly label the knowledge processes in the plan being created. This was not unexpected, given that the new *Learning by Design* framework had been completely unknown just a few weeks before. During this time Teacher A also came to the conclusion that the envisaged unit on the Australian justice systems and democracy was going to be too large to write up in a 4 week Learning Element—the amount of time stipulated to teachers in regard to this particular project.

Two weeks after the professional learning days, the following online contact was made between Teacher A and the researcher:

Dear Mary,

I think I sent you a message on my cgpublisher site yesterday. If you haven't received it then this is my back up. I have made some progress on my unit but am having some trouble making my ideas fit into the jargon. I have planned part of my unit by sequential learning experiences but I need some help to place them in the appropriate categories—or maybe I am way off beam completely. Also although i have tried to upload my work I can't seem to get back into the site to work on the unit. i have attached the work i have done so far.

Cheers Teacher A

Contents	
	What You'll be Learning
Learning Activity 1:	What is 'fair' or 'just'?
	The need for Australian justice systems
	Evidence and facts
	Courts, judges and juries
	Getting a fair hearing
	Principles of a fair trial
	Reading still and moving images
Learning Activity 2:	British justice system comes to Australia
	One-man rule in a penal colony
	Australian justice systems-making in a parliamentary democracy
	Documentary Genre
Learning Activity 3:	Macquarie versus Bent
	Independence of judges and juries today
	Planning a documentary
Learning Activity 4:	Myall Creek massacre 1838
	Modern legislation
	Filming a documentary
Learning Activity 5:	Principles of Australian justice systems
	Editing and presenting a documentary
	How Well Have You Learnt?
	Moving On

Figure 4.5: Teacher A's Contents page of the first draft of the Learning Element 2 weeks into the 6-week planning stage.

The researcher examined Teacher A's draft of the Learning Element after receiving this message. It was found that thirteen pages had been written up to Learning Activity 4 without using any of the 'knowledge processes' labels. All the teaching and learning was under the label 'Experiencing the Known'. Knowing that this was not the way the Learning Element should have been presented, Teacher A had asked for help to place the activities into 'appropriate categories'. This was an important finding that ultimately related to the understanding of the *Learning by Design* pedagogical choices as 'jargon' and not as a

framework that could require a level of deep thought about the teaching and learning processes that were going to lead to learner transformation. The data also indicated that Teacher A was still operating in the old curriculum planning mode of listing a sequence of content and activities to be covered, leaving the pedagogy implicit and unrecorded. What was important in this data was that Teacher A's first priority was to get the content sequenced, then 'tinker' (Thompson & Zeuli, 1999) with *Learning by Design* ideas by adding the pedagogical tags on top.

The researcher provided additional support, labelling some of the learning experiences under the appropriate knowledge processes for consideration and requesting a further attempt to use the *Designs for Learning Guide* (Kalantzis & Cope, 2004) as another way of determining the meaning of the knowledge processes. It was clear that Teacher A wanted to align existing teaching practices to the *Learning by Design* framework dimensions but there was no evidence at this point that the *Designs for Learning Guide* (Kalantzis & Cope, 2004) supplied to all three teachers on the professional learning days was being used.

Four weeks after the initial professional learning days, and after the researcher had paid a visit to Teacher A, the following email was received:

Ideas are starting to come together in a firm direction—an examination of the Australian justice systems which draws on some historical, contemporary and cultural contexts. The main multiliteracy task will be the production of a short and simple documentary on Indigenous justice systems by my Year 7 students. Since I saw you i have done a fair amount of research and tried to get my ideas for learning activities down sequentially. however, i am still struggling with the jargon and the Design template and i would like some help from you once i have completed all my activities.

Cheers Teacher A

ps. i am really trying to get it in on time and should have a pretty good idea of the weekly program of activities for implementing the unit.

Interestingly, Teacher A was still referring to the use of the *Learning by Design* pedagogical tags (experiencing, conceptualising, analysing and applying) as 'jargon' and was still prioritising the sequencing of activities as the most important consideration. After another two weeks working on the curriculum planning, Teacher A had decided that the first draft was too big and was trying to cover too much content on the Australian justice systems for a 4 week learning time frame. Explaining this, another email was sent to the researcher:

I have changed the content of my unit plan considerably and am now only focusing on the visual literacy experiences I intend having with my students—it sounds dead boring now. This means seldom referring to the ‘Australian justice systems’ context. I’m too nervous to send it to you in case it wipes what I’ve done previously and you advise me to revert back to that version. I could e-mail you a copy if you like. Otherwise, I can accommodate your visit some time this week pending your advice.

In this email Teacher A shared the fact that the focus had changed and that the Learning Element would now cover the ‘visual literacy experiences’ rather than the content drawn from the Studies of Society and Environment Syllabus on democracy. This email also indicated that there was an issue with the technological demands of using a digital template to plan curriculum. Furthermore, even though learning about the Australian justice systems would take place parallel to learning about visual literacy, as was to become evident in the deployment phase described in Chapter 5, a conscious decision had been made to reduce the plans and document only those related to the literacy demands of the unit on justice systems in Australia.

Despite still referring to the *Learning by Design* knowledge processes as ‘jargon’, Teacher A was in fact now spending time personally investigating new learning. During the collaborative planning stage Teacher A had been researching how to actually go about teaching students to produce a documentary and the nervousness about planning in the above email was more about losing the record of work already done. Pushing ahead, Teacher A consulted with a friend, who volunteered to help the class make their video documentary. As a semi-retired documentary maker with considerable experience in the field, he possessed the equipment and practical knowledge of the elements that constitute the production of a documentary. He agreed to come in at different times the following term to help the class reach their goal.

This demonstrates that Teacher A was coming to terms with the practical demands that the production of sophisticated multimodal texts, in this case a documentary film, would place on putting the unit into practice. It was an important revelation in terms of Kress’ (2000b) point about the functional specialisation of different modes and the cognitive/transformational work involved in producing multimodal texts. The transformational action of getting a message about Australian justice systems across on film, as opposed to a familiar written or verbal account, was going to take a greater productive and creative effort on the part of both Teacher A and the students in the class. This realisation is also an illustration of Zammit and Downes (2002)

comments that the existence of learning environments that encompass the texts of new technologies require teachers to modify existing practices and to generate new practices. However, while Teacher A was learning how to modify teaching practice at this stage, this modification wasn't being linked to explicit pedagogy because the 'film production' professional learning requirements were being given higher importance. In fact, Teacher A eventually decided that it was impossible to do both simultaneously and decided not to write up the Learning Element prior to the production of the documentary. A decision was made that this would be written up when the various workshops on documentary making were being given to the class. In other words, the Learning Element was not going to be fully planned before the unit on the Australian justice systems was taught. The expert's technical language was, therefore, incorporated retrospectively and the multimodal aspects, grammar of moving film and associated metalanguage were introduced into the learning experiences in the Learning Element during the deployment phase rather than as an element of preplanning. This was seen as a positive and more productive step by Teacher A, who was prepared to build on an expert's knowledge in a reflective planning process rather than deploy an anticipatory set of learning experiences based on only a limited knowledge of documentary film making. At the end of the project Teacher A referred to the planning process in the project impact statement in the following way:

After some time researching the theory of filmmaking, I contacted a distant friend, Peter (pseudonym) who had begun his professional life as a teacher and ended up producing documentaries for a living. He kindly offered to speak with my students and took an interest in the project. With his involvement, my focus shifted right away from theoretical learning in books and I abandoned the rudimentary planning I had made in order to follow his lead. After all, he had successfully made his living from this work over the last 25 years, so I felt very comfortable in using his practical guidance. However, this had implications for the way I used the Learning by Design approach. I began to use it retrospectively, to write up each process as Peter guided us through it. I am sure this is not the approach that was intended by the authors, but as Peter conducted numerous workshops with the kids and moved them, and me, through a very manageable process for preparing for this film, I feel I learnt much, and in a very valuable way.

This explanation suggests that Teacher A had decided that gaining the discourse of film making was more valuable for professional learning than 'theoretical learning in books' and 'rudimentary planning'. It also demonstrates that the drive to produce quality outputs

overweighed the process to the extent that the Learning Element couldn't be finished on time and, therefore, needed to be documented retrospectively. Admission was made that a personal lack of knowledge about making a documentary film had made it impossible to explicate this in the *Learning by Design* template prior to the teaching phase.

Teacher A was provided with ongoing support during this planning stage and had made interventions into personal learning regarding the acquisition of knowledge about making a documentary. The professional learning requirements were high both in terms of the *Learning by Design* materials and new professional language and, just as demanding, teaching a technical language about documentary film making.

4.3.2: Teacher B

The researcher visited Teacher B at 'Castle Street State High School' once during the collaborative planning stage. This was three weeks after the professional learning days and the conversation took place at Teacher B's desk in the Studies of Society and Environment staff room. Teacher B spoke during this visit about the fact that the Year 8 group was difficult, saying that some Year 8 students were really finding the curriculum difficult and that the Year 8 teachers had already planned sessions, like extra sport outside on the oval, in order to 'socialise' these students. It was stated that 'these students had the capacity to act like a pack'.

When the conversation moved on to the subject of curriculum planning, it transposed that so far only the contents page in the Learning Element had been completed (see Figure 4.6 below). The researcher viewed the contents page and, as the activities were elaborated upon, reassurance that what was planned seemed to cover a range of knowledge processes was given. The researcher, however, expressed concern that what had been planned would be too much to cover in four weeks and, responding to this, Teacher B decided to think about the length and have the Learning Element template finished by the end of the next week.

Contents Page

Learning Activity 1:	Stereotypes and representations
Learning Activity 2:	Personal information gathering
Learning Activity 3:	Representations of self—a visual/musical representation of self
Learning Activity 4:	Introduction to autobiography/biographical detail
Learning Activity 5:	Exploring the elements of autobiography
Learning Activity 6:	Web pages examination
Learning Activity 7:	Web page creation
Learning Activity 8:	Peer assessment

Figure 4.6: Teacher B's Learning Element Content Page

During this initial research visit Teacher B also advised that a colleague, another English teacher, was contributing to some of the conceptual planning, and that they had already had some discussions with the school's information technology and visual art teachers about the development of the multimodal texts they were asking students to produce in their Learning Element.

A week later Teacher B emailed the researcher the promised draft of the Learning Element.

I have work to publish and would like your feedback. I couldn't quite work the template out and I ended up separating the knowledge processes out. What I would have been doing anyway in my planning is a whole mix of these knowledge processes.

The draft of this planning, produced four weeks after the professional learning days, showed that Teacher B and colleague had systematically worked their way through the list of knowledge processes in the template and sequentially placed one knowledge process per lesson. Teacher B said they had 'ended up separating all the knowledge processes out' but, in fact, based on this first draft of the Learning Element, they had thought that experiential knowledge had to be present in the first part of the Learning Element. Then, once that was covered, the learning would shift to concentrate on all the conceptual knowledge before moving on to the analytical knowledge processes, culminating in applying these appropriately and creatively. Once a knowledge process had been used it would not be revisited.

The colleagues had effectively worked their way through the knowledge processes, starting with 'Experiencing the Known' in the first learning activity and ending with 'Applying Creatively' in the last learning activity. It was confided in an email that, whilst they both knew there was something not quite right; neither of them could quite work it out but normally they would be 'using a mix of these processes'. Upon examination, it appeared that they had misunderstood the design of the *Learning by Design* template at the point where teachers document the learning experiences. At this point the template in the *Learning by Design* trial process had one page with the knowledge processes tags sitting in order from *Experiential Knowledge* to *Applied Knowledge* ready for teachers to cut and paste to indicate a particular pedagogy at a particular stage in a learning experience. The intended use was for teachers to expand this section of the template and an assumption had been made that teachers would simply cut and paste the eight available tags and write the teacher and student

information under each chosen knowledge process before moving on to record the next learning activity (which repeated the cut and paste procedure) to help indicate the pedagogical processes being used. However, the template was not intended to be prescriptive in terms of the order or amount of knowledge processes. Both of these teachers had clearly thought that they were only to use each knowledge process once throughout the entire Learning Element and to do this in the order set out in the template. This point is important and reflects an assumption about the professional learning model: that is, that teachers would use the *Designs for Learning Guide* (Kalantzis & Cope, 2004) and examples of the finished 2003 Project Learning Elements during the collaborative planning stage. This illustrates existing arguments (Ball & Cohen, 1999; Darling Hammond, 1995; Thompson & Zeuli, 1999) about the higher cognitive requirements teachers need to commit to in order to transform their practice.

At this point, the researcher advised Teacher B and colleague to use some of the examples of previous teachers' Learning Elements to see how the ordering of the knowledge processes in the template did not necessarily have to be used in a prescriptive order and it was also suggested that they should look at the choice of knowledge processes in other teachers' curriculum planning. In a return email, Teacher B agreed to rethink the use of the knowledge processes and, three months later at the project review, it was clear that the colleagues had reviewed their plan during the planning stage in order to complete the form (template), as this had needed to be completed by the end of Term Three. Unfortunately, they were still finding the template itself confusing at the time, although by the end of the project it appeared that the confusion had become linked more to the ideas in the template rather than the template itself.

By the end of Term Three the content of this Learning Element had been separated out to include a range of knowledge processes in all planned lessons. Certainly, once the intended use of the knowledge processes in the template had been discussed with the researcher and other teachers' plans used as a reference, the ideas had become more familiar. The final draft demonstrated that the knowledge processes listed in the template were no longer seen as a prescriptive and sequentially taught set of knowledge. Despite sometimes brief one sentence explanations underneath each knowledge process, Teacher B was using the tags in the template to signal shifts in emphasis of different ways of coming to know the curriculum.

Throughout contact with Teacher B during the collaborative planning stage there was no evidence that the *Designs for Learning Guide* (Kalantzis & Cope, 2004) was being used to

support curriculum planning but the confusion and misrepresentation of the knowledge processes was not due to lack of use but a result of assumptions made about the level of professional knowledge that both Teacher B and the researcher thought to have been mastered on the professional learning days. This phenomena about professional learning resonates with one of Thompson and Zeuli's (1999, p. 355) requirements for deep professional change: 'provide time, contexts and support for teachers to think—to work at resolving the dissonance through discussion, reading, writing, and other activities that essentially amount to the crystallisation, externalisation, criticism, and revision of their thinking'. It also holds true that 'professional development should be continuous and supported' (Darling Hammond & Sykes, 1999, p. 141). Upon reflection, during the initial professional learning days there needed to be a closer monitoring of what was understood and what remained vague about the *Learning by Design* pedagogical approach.

4.3.3: Teacher C

During the project Teacher C was also undertaking a Masters Degree in education (M.Ed), majoring in middle schooling, and was doing a course work unit on 'Teaching and Learning Strategies in the Middle Phase of Learning'. In fact, the Learning Element on the visual arts Teacher C was planning for a group of visiting local primary students had a dual purpose, being the basis of an M.Ed. assignment on the portfolio of practice at the same time that it was being compiled for the *Learning by Design* Project.

In terms of curriculum planning and delivery, the Learning Element did not create as great a problem for Teacher C as that experienced by Teacher A or Teacher B and there was no request for the researcher to provide either support or help during the six week period in which the *Learning by Design* template was being used. Being in regular contact with another *Learning by Design* project teacher during this planning stage, perceived difficulties of interpretation apparently didn't arise. This second teacher was based at the local primary school for which the curriculum plan was being designed and, although not personally participating in this study, this colleague helped in the collaboration. Another point worth noting is that Teacher C did not have to juggle professional learning on the *Learning by Design* theory and ideas with the production of the multimodal texts students were going to create for the multimodality, grammar, associated metalanguage and conceptual knowledge were already integral parts of the existing professional repertoire as a visual arts expert teacher. These factors, already apparent in the entry level profile, can be seen in the analysis of the way in which the Learning Element was deployed.

Teacher C aimed to deploy Multiliteracies in classroom practice not only to highlight the significant existence of multimodality in the visual arts but also to facilitate its transfer into other subject areas. During the planning stage, ideas about what should be included in the Learning Element were documented in an assignment entitled ‘Teaching and Learning Strategies in the Middle Phase of Learning’, written about the project as part of a M. Ed degree coursework. Under the heading ‘Learning Element’ Teacher C’s assignment states:

The rationale behind the visual literacy component is threefold. The first and most holistic is to equip individuals with the necessary knowledge and metalanguage to decode and make meaning of the constructed environment in which we live. This is based on the premise that anything constructed is a product of art and design. A knowledge of visual literacy therefore equips the individual to be critical and transformative rather than a passive consumer. Secondly a knowledge of visual literacy is transferable from subject to subject and project to project made manifest through a variety of visual genres. Visual literacy provides the basis for developing a personal aesthetic and for understanding and responding to aesthetic across cultures. Thirdly and more specifically to this unit, visual literacy development provides the language and experience core to the discourses required for students to create a mixed media collage. This collage is to communicate a humanitarian issue. Ultimately the knowledge of visual literacy and the concept of humanitarianism will be transferred to create a short film.

This artifact demonstrates Teacher C’s conscious depth of knowledge and gives three substantiated reasons for choosing the visual literacy aspects in the Learning Element. Teacher C knew the metalanguage; was aware of the demands on students to be visually literate in other learning domains; and spoke about the intended transformation of the students’ learning being applied to create a short film. However, while most people would argue that Teacher C could be considered an expert in visual literacy by the profession, there was still a need to acquire a deep sense of what *Learning by Design* framework could achieve in delivering curriculum/Multiliteracies for middle schooling students. The fact that Teacher C demonstrated this at a deeper interpretive level than the other two teachers in this research can be seen in the assignment produced for the M.Ed. course work. In this, Teacher C explained the curriculum planning choices using the *Learning by Design* framework by cross mapping the knowledge processes used in the Learning Element to the Queensland Productive Pedagogies framework (see Figure 4.7 below). This reveals professional practice that can be linked to deCourcy Hinds (2002) notion of teaching as a clinical profession—‘a

profession that assesses, diagnoses, prescribes and adjusts practice to reflect new research, training and experience' (deCourcy Hinds, 2002, p. 2). The internalisation of the theory and ideas central to the *Learning by Design* approach was proven in Teacher C's application, analysis and synthesis of the knowledge processes to the Productive Pedagogies. Importantly, Teacher C's professional learning about the knowledge processes was enhanced by affording it serious dedicated time and higher academic degree course work (Darling Hammond, 1998).

Learning by Design Framework: Knowledge Processes	Learning Element	Productive Pedagogies
Experiencing the Known	<p>Lesson 1: Use personal frames of reference to decipher meanings behind the statement "one picture is worth one thousand words"</p> <p>Lesson 2: Creature Exhibition- apply learned knowledge to further develop and refine ideas</p> <p>Lesson 3: Reflect on ideas developed</p> <p>Lesson 4: Review purposeful mark making</p> <p>Lesson 5: Students match results with intended outcome</p>	<p>Relevance: Knowledge integration, background knowledge, connectedness</p> <p>Recognition of difference: Cultural knowledge</p> <p>Supportive Classroom Environment: inclusivity, narrative, group identity</p>
Experiencing the New	<p>Lesson 1: Use personal frames of reference to decipher meanings to decipher the meaning behind a presented art work</p> <p>Lesson 2: visual communication through expressive mark making</p> <p>Lesson 3: swap work and view the work of others</p> <p>Lesson 4: Exploring some painting techniques</p> <p>Lesson 5: Collage exhibition</p>	<p>Recognition of difference: Cultural knowledge, inclusivity, narrative</p> <p>Intellectual Quality: substantive conversation; problematic knowledge; metalanguage, deep understanding</p> <p>Supportive Classroom Environment: Student control; social support; engagement; self-regulation</p>
Conceptualising by naming	<p>Lesson 1: visual devices of line, colour, shape, imagery, composition, focal point, placement</p> <p>Lesson 2: The research component of the design process</p> <p>Lesson 3: introducing written text</p> <p>Lesson 4: Naming some painting techniques</p>	<p>Relevance:</p> <p>Recognition of difference:</p> <p>Intellectual Quality:</p> <p>Supportive Classroom Environment: student control; social support; engagement; explicit criteria</p>
Conceptualising by theorising	<p>Lesson 1: visualising the outcome of alternate possibilities</p> <p>Lesson 2: determining the suitability of selected images</p> <p>Lesson 3: relating text to various film genres</p> <p>Lesson 4: Select a technique for the background of the collage to</p>	<p>Relevance: knowledge integration</p> <p>Recognition of difference:</p> <p>Intellectual Quality: Higher order thinking; deep knowledge and understanding; substantive conversation; problematic knowledge; metalanguage</p> <p>Supportive Classroom Environment: student control, social support;</p>

	communicate an intended meaning Lesson 5: justification of selection of techniques and materials	engagement; problem based curriculum
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Analysing Functions	Lesson 2: Student questioning around the images they have created Lesson 3: Revisit preliminary work in view of adding text Lesson 4: Experiencing each of the painting techniques and their approach	Relevance: knowledge integration; background knowledge; connectedness; problem based curriculum Recognition of difference: Group identity; inclusivity Intellectual Quality: Higher order thinking; deep knowledge and understanding; substantive conversation; problematic knowledge; metalanguage Supportive Classroom Environment: student control, social support; engagement; explicit criteria
Analysing Interests	Lesson 2: Student questioning around the suitability of their collected images and the ways those images can be arranged. Lesson 3: Revisit preliminary work in view of adding text Lesson 4: Revisit preliminary work to add a background that reinforces the message Lesson 5: Critically analyse the suitability of their choices	Relevance: knowledge integration; background knowledge; connectedness; problem based curriculum Recognition of difference: Group identity; inclusivity Intellectual Quality: Higher order thinking; deep knowledge and understanding; substantive conversation; problematic knowledge; metalanguage Supportive Classroom Environment: student control, social support; engagement; explicit criteria
Applying Appropriately	Lesson 1: working to a design brief to draw a picture Lesson 4: students select appropriate techniques and colour scheme	Relevance: knowledge integration; background knowledge; connectedness; problem based curriculum Recognition of difference: Group identity; inclusivity Intellectual Quality: Higher order thinking; deep knowledge and understanding; substantive conversation; problematic knowledge; metalanguage Supportive Classroom Environment: student control, social support; engagement; explicit criteria
Applying Creatively	Lesson 1: Communicating an intended meaning through images, line colour, shape and composition Lesson 2: Communication through expressive mark making Lesson 3: Preliminary work in the form of thumbnail sketches and written annotations in the creative development of ideas Lesson 4: Revisit preliminary work in view of adding text Lesson 5: Plan how the collages will be used in their short film.	Relevance: knowledge integration; background knowledge; connectedness; problem based curriculum Recognition of difference: Group identity; inclusivity; narrative; citizenship Intellectual Quality: Higher order thinking; deep knowledge and understanding; substantive conversation; problematic knowledge; metalanguage Supportive Classroom Environment: student control, social support; engagement; explicit criteria; self-regulation

Figure 4.7: Teacher C's Repertoire of Professional Pedagogical Practice

Figure 4.7 is an illustration of the transformation of Teacher C's professional knowledge, for knowledge from one setting has been transferred to another context to demonstrate the links between the Queensland systemic pedagogical framework to the *Learning by Design* framework and Multiliteracies. In the assignment, 'Teaching and Learning Strategies in the Middle Phase of Learning', Teacher C describes how the tool had been used as a lens during planning to indicate the Productive Pedagogies. Figure 4.7 above also demonstrates the existence of a greater depth of knowledge about Multiliteracies than that possessed by either Teacher A or Teacher B. Diversity is accommodated in the knowledge processes and the Productive Pedagogies elements of Relevance and Recognition of Difference. Multimodality is central in Figure 4.7 and is evident in Teacher C's application of all four knowledge processes. In addition, multimodality is considered through the Productive Pedagogies domain of Intellectual Quality, where attention to a metalanguage is a highly valued element of intellectual rigor. This display captures the broad range of knowledge processes Teacher C used in planning, as is demonstrated in a summary of the knowledge covered and a snapshot of how the different knowledge processes were revisited during lessons 1–5. Finally Figure 4.7 also shows Teacher C's ability to articulate *Learning by Design* ideas with a high abstraction or 'high road transfer' (Thompson & Zeuli, 1999).

A great deal of extra professional reading and analysis of the *Learning by Design* literature contributed to Teacher C's premeditated planning of this Learning Element. Figure 4.7 gives the reader a sense of the depth achieved by Teacher C in understanding the *Learning by Design* ideas. Through the exposition of planning contained in the assignment artifact, Teacher C's own construction of the depth of professional learning indicates a correlation to Darling Hammond's (1998) new strategies for teacher learning. Through 'studying, doing and reflecting' (Darling Hammond, 1998, p. 7) there was a significant personal intervention in professional knowledge and learning about *Learning by Design* framework and tool.

Teacher C completed the planning stage of this project on time and without the need for the researcher to give extra support on the use of the tool and its pedagogical framework. However it is important to note that contact had been established and maintained throughout the planning with a local primary teacher who was also working on a Learning Element for the same group of students. This allowed collaborative planning to form itself around and fertilise both teachers' self identified needs. An analysis of the Learning Element produced by Teacher C (see Figure 4.8 below) shows that in almost all lessons every knowledge process is used to tag the experiences. This is another indication that the *Learning by Design*

ideas were not only possible but also not as onerous for Teacher C as it proved for the other two teachers. The description of Learning Element knowledge objectives in Figure 4.8 below clearly exemplifies how the pedagogical framework was used to tag all multimodal literacy objectives.

Knowledge Objectives

As a result of completing this Learning Element, students will be able to:

Experiencing

- Appreciate that art is a tool for communication
- Apply their own experiences and frames of reference as a starting point for any art work
- Communicate a point of view through a developing visual literacy
- Distinguish between and appreciate the qualities of both expressive mark making and compositional devices

Conceptualising

- Communicate using visual art vocabulary
- Follow a design process which involves:
 - (A) Researching ideas, materials and techniques
 - (B) Develop preliminary sketches with written annotations
 - (C) Resolve one of these ideas
 - (D) Evaluate final work

Analysing

- Deconstruct the visual components of an art work
- Justify interpretations made about an art work based on the visual cues of line, shape, colour, size, placement, juxtaposition, imagery, focal point, and mark making

Applying

- Develop a mixed media/collage to be incorporated into their film. This will be in the form of a still shot. The art works will be designed with the film's genre in mind eg news report; documentary; dramatic re-enactment etc.

Figure 4.8: Knowledge Objectives in Teacher C's Learning Element

The knowledge objectives in Figure 4.8 above show that Teacher C placed metalanguage development and the deconstruction and reconstruction of the design elements in multimodal texts under the tags conceptualising and analysing. This indicates planning for some deep conceptual and analytical work on multimodality. This was early evidence that in Teacher C's case the pedagogical choices for multimodality were neither simply referring to multimodal texts as textual resources for the course of work nor a multimodal makeover.

4.3.4: Generalisations about the Collaborative Planning Stage

What has become clear during this collaborative planning stage is that all three teachers required someone or some mechanism or mechanisms to keep them on track while developing a Multiliteracies Learning Element exploring the *Learning by Design* tool. It could also be argued that the same requirements would surface when teachers are exploring any new idea or initiative. In the case of Teacher A and Teacher B, procedural and conceptual input was required from the researcher and other expert teachers or outside experts during this phase. The planning process proved quite complex for them for a number of reasons. Firstly they assumed that this type of planning could be undertaken using old practices (listing content and a sequence of activities) and there is a lack of evidence to show that these two teachers conducted an explicit analysis of their existing curriculum planning practices in terms of the accommodation of learner diversity. Secondly there is no evidence that they used the guide book and there is no evidence of timetabled regular dedicated uninterrupted time in the pursuit of understanding the ideas within the *Learning by Design* approach. Admittedly in Teacher B's case, and unlike Teacher A, the draft Learning Element was completed by the end of term but it was brief and, at times, pedagogically unrevealing. In contrast, Teacher C's university study was a mechanism that kept the project on track and provided added incentive for substantive engagement with the *Learning by Design* framework and tool.

The way diversity, multimodality and pedagogy were explicitly or implicitly featured in the three teachers' curriculum planning practices during this stage of the project are important indicators for the ways in which the *Learning by Design* approach to pedagogy was being set up to facilitate Multiliteracies and multimodal learning. At this point there was a significant contrast between the almost unstated curriculum planning reflective practices of Teacher A and B and the framing of Teacher C's curriculum planning. Teacher C, by way of an engagement with a cross walk of *Learning by Design* pedagogical choices to the Productive Pedagogies, articulated the envelopment of diversity, multimodality and pedagogy shown in Figure 4.8 above. This is an important point about the salience of curriculum planning and its degree of leverage for teacher professional learning. While the work of Teachers A and B during this stage showed signs of treating the act of curriculum planning as 'going through the motions of listing content and activities' without deep reflective practice, it must be acknowledged that Teacher A found that continuing to plan a multimodal task for students without further professional learning was impossible. However, the fact that the curriculum planning in this project during this stage was perceived largely as a mechanical process by Teachers A and B, points to the need to support teachers to generate more critical reflections

about Multiliteracies at initial professional learning days and during the planning of a Learning Element.

Undeniably, Teacher C came through this planning stage with a deeper knowledge and understanding about *Learning by Design* and its relationship to Multiliteracies and Productive Pedagogies than the other two project colleagues. In these cases, teachers' efforts to use the *Learning by Design* tool were off target. Teachers A and B concentrated far too much on the specificity of the *Learning by Design* curriculum planning tool, in particular the new professional vocabulary and setting out of the template, rather than the *Learning by Design* ideas that incorporate an understanding of the relationship of diversity, multimodality and pedagogy in curriculum design. The data on the curriculum planning efforts of Teachers A and B indicate that vital reflection on learner diversity was tacit. It is possible to consider that the reason Teacher C managed to complete the Learning Element on time using the new vocabulary and set out of the template was because a great deal more time was devoted to its production. The external incentive to use the Learning Element in an M.Ed. course work assignment added a substantially greater proportion of non-teaching time to the creative process of developing the Learning Element and understanding its relevance in supporting Queensland literacy and curriculum policies.

Problems associated with using the template to accommodate diversity, multimodality and pedagogy might have been lessened had teachers spent considerably more time consulting the *Designs for Learning Guide* (Kalantzis & Cope, 2004). Teachers A and B became confused and sought help, perhaps because they were trying to undertake the planning of their Learning Element on the run, alongside all the other teaching and associated demands placed on their time. This highlights the importance of workplace learning with support for teachers if uptake of new initiatives is to be realised (Darling Hammond, 1998; Thompson & Zeuli, 1999). In comparison to Teachers B and A, Teacher C used *the Designs for Learning Guide* (Kalantzis & Cope, 2004) in depth in the assignment 'Teaching and Learning Strategies in the Middle Phase of Learning' and had not planned the Learning Element 'on the run' but had devoted enough time to professional reading and consequent synthesis of the theory and ideas to complete the Learning Element and write an assignment at M.Ed. level on it. This illuminates an important consideration for the use of *Learning by Design* framework or any new idea. Teachers who are new users of this framework need to devote dedicated time to use the *Designs for Learning Guide* to support the use of the template.

Significantly, all three teachers during this phase continued to show commitment to the use of the *Learning by Design* tool to plan a Multiliteracies project in their classroom. All of them stayed with the task of designing their Learning Element in preparation for deploying it the following term. In Teacher A's case, the Learning Element was not completed but the planning remained very committed because the aim was to have the students produce a video documentary and, to do this, an expert was secured to help.

That all three teachers were still proceeding with the project after this phase was encouraging and it is possible to draw on a number of factors that contributed to this. Firstly, the researcher kept communicating deadlines, visiting the teachers and contacting them and providing support via email. Secondly, Teacher C's links to university study kept commitment strong. Thirdly all three teachers had opted in to the project, giving them an added attraction to continue as the professional learning was continually supported, academically by Kalantzis and Cope and professionally by the district Learning and Development Centre for Literacy.

4.3.5: Summary of Collaborative Planning Stage

This chapter has presented a report of the findings about the professional knowledge at entry of the three teachers in this study and has inferred from this their professional learning during the collaborative planning stage of the investigation. By the end of the collaborative planning stage it can be said that the use of *Learning by Design* approach to pedagogy to facilitate Multiliteracies and multimodal learning:

- is a collaborative effort;
- needs dedicated time;
- is enhanced by a link between universities, districts, and colleagues;
- is not an idea that can be picked up by a teacher 'on the run';
- requires teachers to explicitly demonstrate their understanding of the *Learning by Design* ideas—diversity, multimodality and pedagogy—as they map out their curriculum designs; and
- requires a shift in thinking about curriculum planning as documentation of pedagogy for a wider audience because the *Learning by Design* approach is not just a matter of squashing the ideas into existing curriculum planning practices related to content and activities.

These points matter because the demands made on these three teachers to design curriculum plans focusing on pedagogy at a micro level using new terminology in teacher and student

language were far greater than had been anticipated at the beginning of the study. The degree to which the *Learning by Design* approach was used successfully to explicitly capture deep understanding of the theory and ideas of diversity, multimodality and pedagogy was not as significant in these teachers' interactions and curriculum plans at this stage as had been hoped. It was evident that there had been an underestimation of the factors that would account for an immediately successful interpretation of *Learning by Design* and its link to curriculum planning. It was also evident that the competing dynamics of comprehending new terminology; developing a depth of understanding about multimodality and pedagogy; and allocating dedicated professional learning time, teacher commitment and openness to new knowledge meant that the *Learning by Design* materials alone did not capture two out of three of the teachers' explicit consideration of the theory and ideas as anticipated during this stage. This line of reasoning echoes Cloonan's (2005) description of her first use of the *Learning by Design* pedagogical template as being a professional learning 'juggling act' requiring her concentration on many balls at once. This finding is important, for if teachers don't grasp the foundational ideas of *Learning by Design* and have to 'juggle' the professional learning factors during the pre-teaching phase, the degree to which the value of the pedagogical prompts in the planning tool are realised is likely to be greatly reduced.

Chapter Five

Teaching and Learning Stage

5.1: Introduction

This chapter describes the Teaching and Learning Stage of the case study, reporting on the teachers' use of the *Learning by Design* curriculum plans in their classrooms. The focus will be on what happened with Multiliteracies when teachers taught their Learning Elements. The interpretation leads from what transcended the data in terms of teaching and learning and focuses on observations, audio transcripts of classroom interactions and management, teacher accounts, teacher talk and student work samples.

5.2: Teacher A's Deployment of Multiliteracies Using the Learning By Design Framework

This account of Teacher A's deployment of the Learning Element during the second week of Term 4 Semester 2, 2004 focuses on the angle from which professional learning about multimodality and pedagogy was approached. It reveals important points about the emergence of an effective Multiliteracies pedagogical approach after the curriculum planning stage. In this particular instance the Learning Element was being taught at the same time that it was being written and the pedagogical choices could be trialled and described as they unfolded. This phase details the support Teacher A sought from a documentary film maker in order to accurately record the discourse of the genre of film documentaries within the *Learning by Design* pedagogical framework and the Microsoft Word template.

5.2.1: Pedagogical Choices

An analysis of Teacher A's description of the teaching and learning context and the prior knowledge of the students in the class demonstrates that during this study, and more significantly after the initial planning and teaching stages, Teacher A formally articulated the prior knowledge of these particular students in terms of planning new learning for them. Even though Teacher A documented the Learning Element post-teaching, the *Learning by Design* framework prompted the need to make the starting point for learning explicit. Teacher A

provided this account in an informal way to a group of peers after the teaching and learning stage:

It was already ordained that we would be doing a unit on the Australian justice systems. It was a unit on discovering democracy. My class is doing a unit on the Australian justice systems and the development of our legal system. It sounds really dry but they are really interesting units. So I had that as my main unit but I wanted to overlay this Multiliteracies task on top of that but I have a lot of language to do with the kids first of all and just to get through that basically about the legal system in Australia before I could get into what I wanted to get into doing. But at the same time I wanted to find out what the kids understood about visual literacy and I wasn't sure what they brought with them what kind of language they had so we started with having a look at the features of still images.

In a more formal way within the Learning Element the process was described like this:

This unit is based within a wider context of learning about the Australian justice systems in a democracy. The field of knowledge includes concepts of fairness and justice, bias and prejudice, Australian justice systems, Australian law-making, Australian law-breaking and the courts. Throughout this unit students were also exposed to ideas of Australian justice systems that are relevant to other cultures.

Students brought with them some understandings of how the Australian justice system operates and these were influenced by portrayals of the legal process in popular media across a number of cultures and legal systems.

Students had a huge collective exposure to still and moving images in a variety of contexts but they lacked a formal language to analyse and discuss these images.

At the same focus group discussion Teacher A described how the content of the video documentary in the Learning Element was scoped and how new ideas based on current news events evolved during the teaching and learning phase. Despite acknowledging that the production of a documentary on the legal system was 'really hard', it was felt that the rich discussions prompted with students set the foundation of what form the learning would take.

Then I started working on the documentary. As part of the experiences in the Discovering Democracy unit there is a really heavy emphasis on um Aborigines and you know. One of the case studies in the unit is almost a turning point in

Australia's legal history because before that Aborigines were not allowed to give evidence in trials and weren't allowed to appear as witnesses or anything and they really didn't have a voice in our legal system. But as a result of everything changed a bit. So there was this Aboriginal element of it that was there and at the same time as I was planning this unit the Redfern Riots happened and the killing of Thomas Hickey and also there was another case about ah an Aborigine in the Northern Territory who had killed his defacto wife and he was in custody but there was a lot of tribal conflict between the tribes. He wanted to be released from custody so they could have tribal justice metered out on him. Um It wouldn't settle down—all the unrest between the tribes that was a dilemma for the white legal system because they couldn't let him out of custody to do something that was essentially illegal so there was this clash between black and white Australian justice systems. So after talking to the kids we thought maybe we needed to come up with a documentary about the clash between traditional Aboriginal Australian justice systems and the white Australian justice systems. It's really hard trying to do a documentary on this legal system but there was all this other rich stuff that was happening and this productive discussion

The above description captures aspects of a transformative curriculum (Kalantzis & Cope, 2005), with Teacher A portraying the experiential knowledge that was employed and how teaching and learning was presented as a dialogue. It also indicates Teacher A's freedom as an upper primary teacher to chart the course of the learning in consultation with students.

Teacher A's aims for the Learning Element were written up as knowledge objectives in the template housing the *Learning by Design* pedagogical framework. The knowledge objectives specifically linked to multimodal literacy have been italicised for this research in Table 5.1 below.

Knowledge Objectives

As a result of completing this Learning Element, students will be able:

To Experience:

- *Read still and moving images*
- *Work in pairs to experiment with different effects that can be created with the digital camera.*

To Conceptualise:

- Explain some basic principles of Australian justice systems.
- Understand that Australian justice systems are legal rules.
- *Define design features in moving films and photographs to other people and provide clear examples*

To Analyse:

- *Analyse the documentary genre.*
- *Analyse popular media depictions of the Australian justice systems using a variety of design repertoires – audio, visual, linguistic, gestural.*
- *Articulate values that underpin some key principles of Australian justice systems.*
- *Refine and articulate their critical understanding of the concept of fairness or ‘justice’.*
- *Understand that Australian justice systems reflect different cultural perspectives and values.*
- *Use their choices of photographs and written captions to show what they understand about the construction of meaning through image*

To Apply:

Apply their knowledge of documentaries to research, plan, film and edit a documentary
Justify their choices for creating the moving images and content of the film

Table 5.1: Teacher A's Knowledge Objectives

The excerpts in Table 5.1 above are from Teacher A's 'Knowledge Objectives'. Shown in Figure 5.1 below is the 'Contents Page' from the Learning Element.

Contents	
	What You'll be Learning
Learning Activity 1:	What are the design features of still images?
Learning Activity 2:	How to plan and design photographs
Learning Activity 3:	What are the design features of documentaries?
Learning Activity 4:	How to plan and research a documentary
Learning Activity 5:	Putting it all together

Figure 5.1: Teacher A's Learning Element Contents Page

Table 5.1 and Figure 5.1 above both reveal that two months into the project, during the second week of deployment and after a struggle at the start of the project in terms of deciding what content to cover, Teacher A chose to write up and focus on the literacy demands of the unit rather than the specific curriculum knowledge related to studying democracy. Once Teacher A had arrived at that decision there was a growth in personal confidence that real progress had been made in Learning Element design and deployment. An excerpt from the researcher's reflective journal dated Week 2 of the field visit offers the following observation.

Today Teacher A stated that more confidence was felt about the way the Learning Element was progressing. Confident of coming to grips with the template and a feeling that it was achievable now as opposed to last term when it

was felt that there was too much planning in this lesson design form (researcher reflective journal Week 2).

Over the course of the five week observation period the multimodal literacy practices in Teacher A's classroom demonstrated engagement with multimodal texts in line with authentic film making practices.

5.2.2: Multiliteracies: Multimodality and Pedagogy

An important finding from the data about Teacher A's deployment of the Learning Element is how personal professional learning was sought during the deployment stage to capture a metalanguage of multimodal literacy—the discourse of film maker's language. During this phase Teacher A's focus was to work alongside an expert film maker. It was this process that enabled the final documentation of Teacher A's Learning Element as a post deployment curriculum plan.

The following exemplar is taken from an audio recording of Teacher A recounting details of the project to the focus group of participants in this study. References to the engagement of an expert film maker and his subsequent support are made in relation to the outcomes of the students' documentary film. The recount about the production of a multimodal text has been interrupted at points by the researcher during post data collection to juxtapose the different types of knowledge inherent in Teacher A's descriptions (see phrases in italics). This overlay of knowledge processes has been employed to demonstrate how the *Learning by Design* pedagogical framework can be used as an heuristic to analyse the existence of a broad or narrow choice of pedagogy.

Demonstration 1: How students gained experiential knowledge: '*experiencing the new*':

The first day he [film maker] came in we talked about you know that pictures are the most important channel I guess that we get information. So really when you make a film it depends on the pictures you've got and then it's better if you have really powerful pictures and less talking. And he talked to the kids about where you would find pictures and what are some sources that we could go to. [Moving to conceptual knowledge] How can you use symbols? Sometimes it's really difficult to get um pictures that will get across the particular idea and sometimes it's easier to use a symbol and he prompted the kids to find a symbol that they thought they could use and at the end of the film...

Demonstration 2: How students gained conceptual knowledge: '*conceptualising by naming*':

Then he talked about words and sounds as well as getting the message across. Through this discussion he was using a lot of metalanguage in terms of making documentaries—talking heads etc.

Demonstration 3: How students gained conceptual and analytical knowledge: *‘conceptualising by naming and analysing functions and interests’*:

The next important thing was knowing what the take home message was. So what is it they want the film to say? The kids brainstormed all these ideas. We should work together no matter what culture we come from and that message was to come through. Aborigines have had their own Australian justice systems for a long time. Europeans have had their Australian justice systems for thousands of years too. It’s ideal if we could accommodate both Australian justice systems because Europeans have tended to impose their legal system on Aborigines. So that’s what the kids wanted it to be.

Demonstration 4: How students gained conceptual knowledge: *‘conceptualising by naming and with theory’*:

So you can see in these next scribbings [showing concept maps of the film] that we constantly head back to our take home messages to make sure we are still on track during our interviewing and particularly during our editing that we always have this with us.

Demonstration 5: How students gained conceptual knowledge: *‘conceptualising with theory’*:

Peter [film maker] told the kids of a really good way to get their take home message is to think of just a couple of simple rhetorical questions that you can ask of people and that way the answers will lead you to develop your take home message. He got them to think of these questions:

Demonstration 6: How students gained analytical knowledge: *‘analysing interests’*:

Since white people settled in Australia there have been continual clashes between aborigines and whites. So this is setting the scene.

Can both traditional aboriginal Australian justice systems and European Australian justice systems exist together in Australia?

Demonstration 7: How students gained experiential knowledge: *‘experiencing the known and the new’*:

Oh in between all of this it looks like this was just one lesson after the other but it's not. With the take home message there was a huge amount of research to be done. Looking at ABC footage just to see if there was any existing footage that we could use. We knew we couldn't shoot the whole thing and quite often documentary makers don't do that anyway they get pictures from all over the place. But there were issues with that like we looked at the Four Corners program and it was great it was about the Redfern Riots and it was an hour long.

Demonstration 8: How students gained conceptual knowledge: '*conceptualising with theory*':

It was just a huge process for the kids to sit down and actually go through that and try to pick up the footage they wanted to use. But it was very productive the conversations they were having because you know they'd think they'd find something they thought was really good and there were some young Aboriginal teenagers saying the riots were great and it was the best thing that had happened in Redfern and we hated the cops.

Demonstration 9: How students gained analytical knowledge: '*analysing interests*':

They said that would be great to use but then they realised that we can't because it's too extreme. It's too inflammatory. What do we want the take home message to be so we can't have it. And I think Mary you were there when the kids were having some of these conversations.

Demonstration 10: How students gained conceptual knowledge: '*conceptualising with theory*':

Mary: They were good they were almost like professionals having a conversation, deciding and collaborating together.

Demonstration 11: How students gained conceptual knowledge: '*conceptualising by naming and with theory*':

So we needed to get a map of our film so we wanted to start off with some maybe some shot of the Redfern Riot scene. He [film maker] talked about oxymorons too being too dramatic with contrasting images so they thought they might have the Redfern Riots with some heavy really violent rock music. He said sometimes if you have some very violent footage with some peaceful music maybe you have an oxymoron you have a much more powerful effect. So it's really good at giving the kids a lot of rich language.

So this was basically the map of our film and that what's we stuck too during our editing.

Demonstration 12: How students gained experiential knowledge: '*experiencing the new*':

And then it was a lot of timetabling then trying to there was a huge amount of research trying to get Aboriginal people to talk to so we weren't always talking to white people. It sounds easy but it wasn't. It was really hard to contact them. Messaging back and forth etc. It was messy. In the end we did get to interview quite a few Aboriginal people but we actually in the end didn't end up using much.

Demonstration 13: How students gained applied knowledge: '*applying appropriately and creatively*':

Then we had a filming schedule we had to do all of our filming in one day so we had to do that and then the editing. We had 2 days to edit. The last day was on Tuesday this week.

We had one day on the last Friday and then we had about 3 weeks break before we got back to the editing in some ways it would have been good had we have edited on days closer together. But that's the way it worked. That was it.

So I'll show you the film. It's only very short.

Demonstration 14: How students gained conceptual knowledge: '*conceptualising by naming and with theory*':

I suppose the other time when there was really rich language going on was during the editing processes. It was exhausting trying to decide which images were to be going on, which parts of the conversation.

The above analysis of Teacher A's explanation of the teaching and learning that occurred with the help of an expert captures the broad range of knowledge processes belonging to the *Learning by Design* pedagogical framework. It also shows how the students were initiated into the discourse and at the same time able to show which knowledge processes were at play. Interestingly, the juxtaposition of knowledge processes within Teacher A's recount also reveals that these processes do not naturally fall into a prescribed sequential set. It confirms that the knowledge processes are not designed to be used in a linear way from experiential to applied but are selected more than once for different teaching and learning emphases at

multiple and different times for varied purposes throughout a series of learning experiences (Kalantzis & Cope, 2005).

Teacher A's work in the project suggested a knowledge of the art of film making had been developed alongside the critical legal issues facing Indigenous Australians. These two factors provided the support for the adoption of new practices in the literacy classroom. For example, the production of the text was not centred on its generic structure but rather its central focus was on the intended 'take home messages' of the film and the how choice of images, words and sound would contribute and combine to affect the intended messages.

An analysis of Teacher A's words is interesting: 'pictures are the most important channel'; 'really powerful pictures and less talking'; 'find a symbol'; 'knowing what the take home message was'; 'we should work together no matter what culture we come from and that message was to come through'; 'we constantly head back to our take home messages to make sure we are still on track'; 'looking at ABC footage'; 'it was very productive'; 'deciding and collaborating together'; 'to get a map of our film'; 'very violent footage with some peaceful music'; 'rich language'; 'this was basically the map of our film and that what's we stuck too during our editing'; 'to interview quite a few Aboriginal people'; 'filming schedule'; 'then the editing'. All of these paint a vivid description of the practices that led to the final video documentary 'The Australian Justice Systems: Tensions and Support'.

Teacher A's recount demonstrates a focus on developing a repertoire of literacy practices in the context of multimodal text production not just text consumption. This suggests that the production-instructive pedagogy helped Teacher A become familiar and comfortable with the discourse of the social practice of creating and producing a video documentary (Lankshear, Snyder & Green, 2000). This mattered in this case study because during the collaborative planning stage Teacher A had believed that the students couldn't operate effectively or successfully produce a multimodal text at an intellectually rigorous level unless they were guided by someone (expert teacher or expert from the field) who was fully conversant with the discourse. The data indicates that Teacher A learned the video production field-specific literacies before authoring a production-instructive Learning Element that led students to create a video documentary with depth of knowledge.

The data above also suggests that this recount was not a description of a multimodal makeover (adding multimodal texts into learning experiences without changing the pedagogical practices to allow for knowledge of the design elements involved) or of a teacher

‘tinkering’ on the side of a new initiative (Thompson and Zueli, 1999). Rather, this was a description of an effective Multiliteracies approach with the affordance of the discourses of the social practices—students knowing how to play the game and knowing from which angle they would produce a multimodal text (New London Group, 2000). Furthermore, even though Teacher A did not explicitly articulate the connection of what happened during the production of the documentary to the various knowledge processes in this instance, an analysis of it, substantiated in the completed Learning Element, demonstrated the markings of the *Learning by Design* approach (Kalantzis & Cope, 2005).

To further exemplify these findings the next excerpt demonstrates the effect the film maker had on a group of students in Teacher A’s class. The design process is at the forefront as students theorise which footage they would use from the ABC Four Corners documentary on the Redfern riots. The main task of this exemplar of the interactions of a group of students was to view a multimodal text and they were asked to theorise how they would use excerpts from the footage to support the ‘take home’ message of their film.

On a chart from previous work this group had done were these take-home messages for their film:

- We should work together no matter what culture we come from;
- Aboriginal people have had their own Australian justice systems for a long time;
- Europeans have had their Australian justice systems for hundreds of years;
- Ideal if we could accommodate both Australian justice systems together; and
- Europeans have tended to impose their legal system on Aborigines.

During this observation the researcher wrote a comment about Teacher A’s confidence in the developing teaching designs.

Teacher A had stated before the observation to be really pleased how things were going with this group and where things were up to in terms of the project intentions. We both had a moment when we thought students were really theorising well and using language well. We caught each other’s eye as if to say ‘these kids are on the right track’.

Students began to view the television footage of the Redfern riots. The purpose was to determine how they could use parts of the controversy surrounding Thomas Hickey’s death in their own video. They were searching for footage that would match their ‘take home

messages'. Frequent discussion of the worthiness of a scene occurred before students noted parts of the documentary that supported their message followed by the continuation of the search for more footage. One student reminded the group that they 'needed to have a punchy 10 minutes not a boring long documentary'.

On another chart next to the group of students were these prompts:

Pictures tell the story—most important channel of information

- Where to find pictures:
- Archival pictures
- Redfern riots
- Photos
- Purpose shot footage
- Vox Pop (vox populi) voice of the people tapestry of opinion

The interaction in the classroom was considerable.

Teacher A: While you're looking at the footage you need to bear this in mind. This is your video ideas. Remember this is what you brainstormed amongst yourselves about what you wanted your take home message to be so these are the important messages. First of all: that we should work together no matter what country we come from and the others on this chart.

Students discussing the Four Corners episode (muffled)

Student 1: Or we could we could... we could get all the pictures.

Student 2: I mean.... Just put it on audio like take the audio not visual footage.

Student 3: But how does that (pause) work? I don't know how you'd do it but...

Student 1: We could have the story and a little bit.

(Muffled talk)

Student 1: May I rewind it?

Footage from television: When someone's racing behind you I call that being chased. If you are going as fast as you can... This accident occurred about 100 metres away from the locked gate over the other side of Phillip Street behind the Housing Commission tower.

Student 4: It looks like they're to actually go. It looks like

Footage from television: Stuart Flanagan and Roy Hickey heard sirens going about 5 minutes later so they circled back to the path.

Student 5: There's some lines and white fellas hey?

Student 1: Yes rewind it (muffled noises because of other things happening in the room)

(Taped stopped and starts again)

Student 2: We could take that footage there. Because the way that goes

Student 5: Yeah

Student 2: Europeans intended to impose their legal system on Aborigines. We could put that, well, we'll have it. What is it?

Student 1: Well it's a number. Listen to it when it's rewound

Teacher A: Just put it down the part where they are putting up the um posters.

Student 2: Some of this actual footage of the riots would be good

Student 3: Yeah

Student 2: How the... clash and some of the actual pictures of what happened

Student 3: Yeah, yeah, yeah, and like the .. I know what we could um it's um we could... get the nastiest pictures of the Redfern Riots and just get them rolling across the screen

Student 2: Well you don't need massive pictures to scan them on

Student 4: Yeah but are going to be doing video camera

Student 2: Yeah well you could edit it so that you've got these covered up getting bigger on the screen. Well like how they have it in the distance coming closer.

Student 1: Yeah

Student 2: And it goes away and another one comes

Student 3: Something like that

(Footage plays)

Student 4: Europeans have tended to impose their legal systems on aborigines we could have a picture of him.

Student 1: How can you cut that out and put in our film?

Two students: You can, you can

Teacher A: We've got the use of the high school. They can do it.

Student 3: Guys no what was it? Um Rodney Caries wasn't it? Rewind it for a little bit Dale (pseudonym)

Student 2: Yeah rewind it for a bit. Press play now press play.

Footage from television: Most of that Sunday the police steered clear of the block unaware that people were getting themselves ready. They arranged a lot of weapons. They pulled up all of the paver bricks and cut it up into throwable sizes. They collected all of the beer bottles from out of the wheelie bins both the long neck bottles and the twist top bottles and they had them all lined up and the car was stolen from off the block somewhere and brought onto the block. The petrol was taken out of the car and they filled up a lot of the twist top bottles and made Molotov cocktails and they pretty much had all of the ammunition lined up

before the police actually started approaching them. About what time would that have been?

(television stopped)

Student 3: Yeah the kids throwing the bottles and they'd get them and run away.

Student 1: Because we could put it under war because they are having a mini war.

Student 4: We could accommodate both wars together.

Student 2: Yeah we could stick it on there as opposing.

Student 5: This one is, this one is more to do with what happened when the wars, not the wars, the laws don't work.

Student 3: Yeah. We'll just use some of this footage for when laws don't work

Student 4: So when laws don't work together

Student 2: Do we only have the tapes that we're using?

Student 1: He did say max

Student 4: What did he say maximum again (talking about the film maker who is helping them)?

Student 3: Write footage just put 10 minutes

Student 2: 10 minutes

Student 1: It's Ok we'll have plenty of time

Student 4: But he said not to have but remember he also said not to have, to have a punchy 10 minutes not a boring 30 minutes

Student 3: Yeah we need to make it impacting especially at the start

Footage from television: We saw almost 40 people injured and many taken to hospital, police carried off the line semi unconscious. Very traumatic no doubt about that

Student 2: Right the way through. We could have that at the very start

Student 1: You could put their face to the camera so you can hear it. So you can hear it

This data demonstrated that students were 'insiders' to the discourse because the student talk sounded more like a production meeting where authenticity and deep knowledge were evident. The main knowledge processes students were using were conceptualising with theory (collaboratively theorising which concepts from the footage met their own film's messages) and analysing functions (what the footage was for and the purpose of editing footage).

What is apparent is that these students were beginning to understand the organisational structure of the discourse and to use a language to describe forms of meaning (New London Group, 2000). Another outcome was that Teacher A had started to find a way to deal with the

pressure that multimodal text production had placed on existing teaching practices (Cope & Kalantzis, 2000; Kress 2003; Lankshear, Snyder & Green 2000; Zammit & Downes, 2002).

Another relevant finding to come from the observations of these learning experiences was that Teacher A and the expert film maker set up a model for this literacy classroom where it transformed from a classroom atmosphere and arrangement of traditionally 'doing school' with desks, exercise books and a blackboard to a film 'production house'. In this classroom student-teacher relationships took on the appearance of a master-apprenticeship model. It is feasible to suggest that this effective model in Teacher A's classroom was providing high student engagement and intellectual rigor. Teacher A's students were asked to focus on the 'take home' messages (linked to conceptual and analytical knowledge processes) of the video production in a collaborative team (not in desks but how authentic work teams would collaborate) to select the elements of their film's design. This indicates that Teacher A's pedagogical choices allowed a transformative learner effect similar to Kalantzis and Cope's (2005) transformative curriculum. This included 'teaching and learning as dialogue' specific 'pedagogical variations' and the conditions for learning, 'belonging and transformation' (Kalantzis & Cope, 2005, p. 66).

Furthermore, in this case of Multiliteracies deployment the building appeared to be insignificant in the curriculum. The classroom didn't seem to shape the learning, rather the multimodal texts gave the impression of shaping a 'green space' in the classroom where desks and blackboard were irrelevant and other 'open space' sites for discussion and filming equipment were located for creative innovation.

In another episode students were sitting in a large semi circle on computer lab chairs in a withdrawal room with the film maker: as 'apprentices' learning in authentic ways. This learning experience occurred after students had made some choices about their 'take home messages' and were given conceptual information about where they would retrieve or create the visual footage for their film. The film maker in the following excerpt is trying to map out what elements students will use to carry their message across on film.

Film Maker: Can I just go back to what I said to you last week when I showed you some things and that is what is this medium all about? What's the most important thing you can do? No, no, no this medium, form? What's the most important thing in it?

Student 1: We should work together

Film maker: No, no no. When you go and look at a film or watch tellie what do you find the most out from?

Student 2: Pictures

Film Maker: Yeah. Now if you had a choice between starting your program on the Redfern Riot with an ugly scene with police action and riots and stuff or a voice over saying they think there's constant conflict between... right pictures, really strong stuff or we have the first thing you can see is a voice comes up and says In Australia there's all sorts problems boom, boom, boom, boom

Student 3: Ok so we have to have some scenes

Film Maker: Yes. Start with really strong pictures. If you are working in television you've got about 30 seconds to make your audience watch your program or they go (clicks fingers). So you've got to come up with some really strong pictures OK? Let's start with the important Redfern riots. Have these programs got straight up sound on them?

Student 4: Yeah they're really good. Yeah they do they do we've got ones of the riots

Film Maker: I know the ones. There was one beauty the street scene and they threw a big um

Student 7: Rocks, uh rocks, uh Molotov cocktail.

Film Maker: I have seen that scene so many times.

Student 3: Yeah we've got that one.

Film Maker: Now that says, that picture, without any words says conflict between whites and blacks and police and blacks.

Student 4: And then could we have a voice over?

Film Maker: Yeah now you're thinking through... A voice over which talks about the

Student 1: Two laws clashing.

Film Maker: The two laws clashing what else?

Student 2: And someone says the Aborigines had their laws.

Film Maker: All right.

Student 5: And then we could um you know how um you... I was thinking um that you know how it said how .have interviews between like say we can go to the high school and um I was thinking we could do things like ask some high schoolers do you even know what Aboriginal Australian justice systems is?

Student 2: And have you heard about Aboriginal Australian justice systems?

Student 3: What do you think of the Redfern riots?

Film Maker: Just think about this... We set up this Redfern Riots and the voice over says 'ever since white man has been in Australia there have been clashes between white people and black people'. You ask a rhetorical question. Do you

know what a rhetorical question is? It asks why. Why? Then you'll go to the high school kids and you'll ask them that question. What do you think those people are going to say? Someone might say because they've got different Australian justice systems or another one might say because the white people are thugs and bully black people. Another one might say that black people don't understand

Student 4: Others might not care and say I don't know...

Film Maker: That's exactly right what you're saying and that's why you have such freedom of power as a film maker because if you choose you could just put all the answers that say negative things about black people and put across to the audience that all black people are bad. Or you could put all the white people together that say that black people are mistreated or you could try to get a balanced view that shows a little bit of each. When you get in the edit suite you can choose. So you ask the same question to a lot of people then you look at all the answers and then you choose from that. You'd like to get a balance in your film wouldn't you?

Student 6: Do we just write down what they say or do we get one of those recorders?

Student 7: No we film them

Film Maker: You film them...

The data suggest that the pedagogical effectiveness in Teacher A's classroom that was related to increased cognitive, transformational opportunities for students was linked to the inclusion of a video 'production house'. The film maker's 'production house' centred on production-instructive pedagogy with discussion through conceptualising by naming and with theory and analysing functions and interests. The focus was on the real world of film production: 'this medium'; 'if you are working in television you've got about 30 seconds to make your audience watch your program or they go (clicks fingers)'; 'a voice over'; 'you ask a rhetorical question'; 'you have such freedom of power as a film maker', all of which provided a rich canvas for intellectual growth.

This 'production house' was an irrigation of productive teaching and learning to sustain and transform students' literacy repertoires. The metalanguage used and developed in the production of the film drew from the expert's professional knowledge of the discourse of film making. It was used to identify and explain the particularities and technicalities of the documentary film genre during the design process, not as a standard structured set of rules to be replicated (New London Group, 2000) but as a flexible means of ensuring the film would portray the students' message effectively.

This productive teaching and learning was also substantiated during a practice session on the filming day:

Student 3: No

Film Maker: I am talking to him blah, blah, blah de blah. While I am talking you can do a fairly tight shot on me blah de blah de blah. What's that shot look like? Just stop recording and press the little red button.

This is what you call a directional microphone. If you point it that way it takes in all the sound. That side's the dead side so you must make sure that's pointed at the person talking.

We've got a minute yeah. What happens when I go out when I arrive at a place and I go and talk to the person and I get a bit of a rapport with him and then we just come and sit down and do it [the interview]? So do you guys know what to do with?

This is the sort of set up. This is what we will be doing when we do the interviews.

Teacher A: you did a good job you held the microphone in exactly the right spot. You press the red button when you're ready Bill (pseudonym). Give her a tap on the shoulder

Student 4: Since Europeans have been in Australia there has been continual conflict between Aborigines and Europeans. Why?

Film Maker: I guess we are going to find out this afternoon aren't we. Now there's another question, Can both traditional Aboriginal Australian justice systems and European Australian justice systems exist together in Australia?

Yet again I haven't got a clue but we'll find out this afternoon blah, blah, blah.

Can you press the red button? Done. OK. Now if you get tired of holding it just put it down by your side. Don't put where someone can tread on it.

Clearly in the above excerpt students were being shown how to film an interview. The dialogue between the film maker and students was a sharing of the craft of film making not as knowledge transmission but as insiders in a tutorial about the discourse of the social practice with the actual equipment that needed to be used later that day.

In contrast to the data in the previous planning artifact 'Displaced People and Global Support' (see Chapter 4), tagged by Teacher A as a 'Multiliteracies' unit, the traces remaining at this stage of the project show a deeper understanding of Multiliteracies, multimodality and pedagogy at play and a more articulate reference to diversity within Teacher A's Learning Element. The previous planning document had shown signs of

‘productive tinkering’ (Thompson & Zeuli, 1999), with Teacher A making some changes to existing professional practice by gathering and documenting some new literacy activities under the banner of a ‘Multiliteracies’ unit. However, by placing them on a pre-existing language based framework, thinking on Multiliteracies at the time could be interpreted as a surface change in professional practice rather than a transformation in ideas about teaching and learning multimodal literacy.

A comparison of the data below with that collected during the collaborative planning stage (see Chapter 4) shows that Teacher A’s professional learning curve was steep. However, because of this ongoing involvement in a specifically designed professional learning project, Teacher A found the time to intervene in personal professional learning to ‘juggle the professional learning balls’ (Cloonan, 2005) and to locate the resources, both human (expert film maker, district consultant and university support) and material (*Learning by Design* theory and ideas), in order to grow professionally.

In answer to the question: ‘How has the support provided through the Multiliteracies project (e.g. using the *Learning by Design* materials) improved your literacy knowledge and practice?’, Teacher A made the following response:

An area of literacy that I had never explored before as a teacher was the ‘documentary film’ genre. I had set this as my personal aim for this year but being involved in this project gave me a definite framework to use. It also gave me a fairly urgent time frame and some financial independence to work with.

Using the *Learning by Design* materials provided me with a new way of considering the teaching of literacy. I acquired a new repertoire of language, or rather, new dimensions of meaning for terms I already knew. I found this challenging. My involvement in this project really cemented my understanding of what is meant by the term ‘Multiliteracies’ and forced me to embrace all the challenges that are implied by it. This project allowed me to focus previously disparate competencies in my teaching of literacy (eg critical literacy, visual literacy) into a more unified and purposeful intent. In this way the learning context felt less contrived and more authentic.

My students and I really enjoyed being involved in this project. It gave them a context in which to engage, intellectually, with some really higher order thinking. It gave them a sense of purpose and focus—a way of channeling their collaborative intellectual efforts into a single and fairly complex intent. It was

stimulating for us all, not only because of the nature of the content, but also because it required new skills and competencies. The students loved the filming days and learning how to use the camera and sound equipment. My favourite part of the process was in the editing suite—watching the kids quickly become very competent in using the editing software, listening to their decision making about the text they were creating, considering alternatives, watching it all come together, playing it back and feeling the impact of our decisions, watching how the kids reacted. When we had our world premiere in front of our small audience of parents, the students were justifiably proud of their film and the parents were vocal in their praise of the kids' efforts. I felt quite emotional. I think part of that was a degree of frustration—watching a film is one thing, but the audience doesn't really gain an insight into the students' intellectual growth that I see, and value so much, as their teacher. It's hard to put all that into words—you have to be there and listen to their conversations and appreciate the complexity of how these 11 and 12 year old kids were thinking and behaving.

The data demonstrates that the outcomes of Teacher A's professional learning impact story carry themes of new understandings of multimodal literacy, including the metalanguage of film production, supporting intellectual depth and authentic student engagement: 'a context in which to engage, intellectually, with some really higher order thinking'; 'a way of channeling their collaborative intellectual efforts into a single and fairly complex intent'; 'students' intellectual growth'; 'the complexity of how these 11 and 12 year old kids were thinking'. The *Learning by Design* materials are described as providing 'a new way of teaching literacy' and supporting the ability to focus on 'previously disparate competencies in my teaching of literacy ...into a more unified and purposeful intent'. The *Learning by Design* approach to pedagogy in this instance, and at the end of the project, was being reported by Teacher A as allowing 'new dimensions of meaning' and a more powerful design structure for the understanding of literacy learning terms as already known.

These 'new dimensions of meaning' were also evident in the final documentation of Teacher A's Learning Element, 'The Australian Justice System: Tensions and Support', where the deployment of the documentary film production was recorded post teaching phase to allow Teacher A to learn alongside students and, in doing so, chronicle the Multiliteracies transformational journey with a *Learning by Design* approach to pedagogy that left behind only traces of personal and student learning.

5.2.3: Summary of Teacher A's Deployment of Learning by Design

The teaching and learning stage detailed in this section has provided a triangulation of evidence that Teacher A was transformed from a teacher who had entered the project with some surface knowledge of why it was important to consider the teaching and learning of Multiliteracies into a teacher who had developed increased knowledge and understanding of not only the 'why' of Multiliteracies but also the 'what' and 'how' (Kalantzis & Cope, 2005; New London Group, 2000).

While Teacher A's professional learning requirements were a huge personal challenge in the Collaborative Planning Stage, this stage was only the preface to a 'mid to high road transfer' (Thompson & Zeuli, 1999) of the *Learning by Design* theory and ideas. This was most evident in the development of a deeper understanding of the discourse of the multimodality of film production. What was significant for the research was that through this growth of understanding of how the text production discourse could be translated into the *Learning by Design* pedagogical variations, the conscious pedagogical choices could now be documented. This aspect was not included in the previous curriculum planning which was recorded in a language based framework as sequential content without communicated, premeditated pedagogy.

5.3: Teacher B's Deployment of Multiliteracies Using the Learning By Design Framework

5.3.1: Pedagogical Choices

Teacher B's deployment of the Learning by Design Framework used the existing knowledge structure of the Studies of Society and Environment and English syllabi and the curriculum parameters set by the school based heads of department to determine the curriculum content and pedagogy. This Learning Element for the Year 8 class' introduction to critical literacy, therefore, was embedded in the terminology of the Senior English Syllabus and was identifiably still a part of a school based strategy. In the first data excerpt below, Teacher B describes this pedagogical choice to the project group on the final project review day:

Well see that's the language. One of the reasons Edwina [pseudonym for Head of Department] and I decided we would look at this. I mean it's not a new—to talk about my generation and what it does that sort of thing but in Year 11 we use Venn Diagrams and we talk about representation and these poor kids are struggling in Year 11 and are assessed on concepts that are new you know so

which is why we thought we'll introduce it to Year 8s now sort of keep them and of course if we get them through then those who have that language will be fine.

This data from Teacher B's discussion with the group explains how the Learning Element content choices were based on the Head of Department's observations that Year 11 students at the school were struggling to understand and use the metalanguage of critical literacy—for example, 'marginalisation', 'representations', 'connotations', 'stereotype' etc. (Queensland Studies Authority: 2002)—and, therefore, wanted these terms introduced from Year 8 onwards. The intention was that this group of Year 8 students would learn about this metalanguage in the delivery of Teacher B's Learning Element.

With such school based imperatives in mind, the design context within the Learning Element was planned to be in the form of a multimodal poster and oral presentation. Entitled 'We are Unique', these would show the students how to use a combination of images, words and music which, from Teacher B's explanation above, would supposedly help students demonstrate an understanding of the Senior English Syllabus critical literacy metalanguage.

Teacher B used the *Learning by Design* tool to demonstrate that diversity had been considered by placing Multiliteracies and the knowledge processes in sections headed *Students Prior Knowledge*, *Knowledge Objectives* and *Student Pathways*—what students would learn next as a result of their engagement with the Learning Element. On the teacher side of the Learning Element Teacher B wrote this reference to the students' entry points into these planned learning experiences under the heading 'Prior Knowledge'.

Students have existing experiences. Students can identify and share their existing appreciation of the ways in which sections of society present images of teenagers. Students will be required to collect samples of data, images, music, films, TV programs, advertisements etc which they believe best represent themselves. In doing this they will revisit their existing understanding of the diversity of interests and experiences thus emphasising their individuality.

Teacher B also documented how to deploy Multiliteracies in the *Learning by Design* tool. In the section headed *Knowledge Objectives* the general knowledge process categories of experiencing, conceptualising, analysing and applying were used to convey how the development of multimodal literacy would occur:

Knowledge Objectives

As a result of completing this Learning Element, students will be able to:

To Experience

- Recognise the ways in which teenagers are represented in society
- Experience a wide variety of texts
- Experience a variety of autobiographical readings and understand the structure of such readings

To Conceptualise

- Think about the elements producers of still and moving images use to create their desired effect
- Define the use of language, space colour, foregrounding, angles, clothes, gestures and point of view
- Define the elements and structure of the autobiography

To Analyse

- Understand the diversity that exists in a given group of people
- Gain an understanding of the nature and results of stereotyping on society
- Gain an understanding that visual texts are not necessarily natural or real. These texts are constructed to encourage the reader to respond in a specific way
- Understand that the construction of a visual text will be influenced by the purpose of the text and the specific audience targeted
- Gain an understanding that the same texts can be interpreted in different ways as the meaning of images may vary according to social groups
- Recognise the ways in which individuals are represented in their own stories—the purpose and elements of autobiography
- Understand the value and power of effective and varied methods of communication
- Analyse the purposes of web pages and autobiographies

To Apply

- Communicate with both peers and teachers by:
 - (A) Presenting a visual/musical display of images of self
 - (B) Representing themselves in writing

Figure 5.2: We are Unique Knowledge Objectives

In the above plan Teacher B outlined how students would not only be looking at the range and parts of multimodal texts but also learning about them from the assumptions, beliefs and functions communicated in multi media texts. The objectives in Figure 5.2 above describe how Teacher B had considered the build up of different ways of knowing about the way people are represented in multimedia texts so that the students could then produce their own multimodal text—a visual and linguistic poster representing their world with accompanying music and an oral presentation about their work.

5.3.2: Multiliteracies: Multimodality and Pedagogy

Teacher B also prepared an assessment task for students, shown in Figure 5.3 below, attaching this as an appendix to the Learning Element. This was the concrete detail of the repertoire of literacy practices that were expected in students' final products. In it Teacher B also provided students with the criteria and standards upon which their performance of the task outlined in Figure 5.3 would be assessed.

WE ARE UNIQUE

PART A:

TASK: You are to produce a multi-modal representation of yourself. This presentation will introduce, to your year level, the "real" you, as *you* see yourself. The presentation should include symbiotic reference to all the important things that make you the person you are. This presentation will signify the way you wish people to see/read you.

Multi-modal: Remember: *Matilda*, *Cheddar Cheese and Chocolate Cake* and *PK?* We turned these from one mode (words) to multi-modes—words, music, and sketches. This is the type of presentation that you must make of yourself.

Include:

- Symbols that represent you
- Visuals, photos, pictures, sketches
- Written language, speech bubbles, poems, sayings, logos, signs, words
- Sounds, songs, instrumental, readings, radio, comedy routines
- Graphics and digital representations

NB: YOUR PRESENTATION SHOULD LEAVE NO DOUBT AS TO THE ESSENTIAL YOU.

RE READ YOUR PERSONAL PROFILE, RE READ YOU MIND MAP

NO PHOTOGRAPHS OF YOURSELF TO BE INCLUDED

PART B You are to present this representation of yourself to your class. In your presentation you must explain why you chose the images and colours that you did. You must also comment on the layout of the poster and the music and or AV accompanying the presentation.

Figure 5.3: Teacher B's Learning Element Assessment Task

The first finding from the data on Teacher B's deployment stage concerns the understanding of Multiliteracies at this time. It was becoming evident that the professional learning demands about understanding and foreseeing the repertoire of literacy practices students would need to achieve sophisticated standards of knowledge about the multimodal text design process were going to be high for Teacher B (Lankshear, Snyder & Green, 2000). Once observations of the

deployment of Teacher B's Learning Element commenced it was apparent, in the assessment task in Figure 5.3 above and in Teacher B's expectations of students in the knowledge objectives in Figure 5.2 above, that the description of teaching and learning required student familiarity with the discourse of the social practice of producing a multimodal poster. However Teacher B's pedagogical designs found in the Learning Element and its deployment over the first three learning experiences focused mostly on a teacher directed deconstruction of popular culture multimodal texts.

The data suggests that Teacher B had not engaged enough with the professional learning experiences offered in the *Learning by Design* project to understand the core ideas of diversity, Multiliteracies and pedagogy. It was becoming clear in Teacher B's deployment stage that the intended outcomes of the professional learning project were 'up against productive tinkering' (Thompson & Zeuli, 1999, p. 355). Admittedly the focus changed in the deployment of last two learning experiences, during which the students designed their posters, but an overt elaboration of this change in pedagogical emphasis did not manifest itself in Teacher B's Learning Element documentation.

The pedagogical data in the early stages in the Learning Element classroom delivery was showing strong signs of directed teacher input of *experiential knowledge* about various multimodal texts using different media. Field notes and audio tapes demonstrate that Teacher B's interactions with students in the classroom were concerned with the introduction of a metalanguage used in the Queensland Senior English Syllabus, deconstructing specific design elements in multimodal texts (the Simpson's, photographs of scenes of Brisbane and common public signs) and teacher explanations of how image makers and text producers use these elements of design to represent versions of reality. Importantly, the discourse of the social practice of actually producing an animated television comedy, a photograph or public sign was not offered. The teaching emphasis on deconstruction and recall outweighed an emphasis on re-construction. Yet reconstruction was a factor that was essential to the task of students' transformation—the discourse of creating and explaining the design choices in a multimodal poster representing their life worlds.

This next section draws data from the first three learning experiences in the Learning Element to highlight Teacher B's pedagogical choices for supporting students' understanding of curriculum knowledge. Teacher B had planned to build the experiential, conceptual and analytical knowledge about the students' worlds through images in the media. A deconstruction of these texts was offered in learning experiences 1–3 and the expectation was

that students would be able to show transformation through re-construction of that knowledge in their assessment task during learning experiences 4 and 5. Despite this, the pedagogical choices that unfolded in classroom observations in learning experiences 1–3 were not predominantly characteristic of a broad choice of knowledge processes. Nor did they indicate instances of a transformative curriculum which embodies a *Learning by Design* approach (Kalantzis & Cope, 2005).

The textuality of the discipline of English was used extensively by Teacher B in the first three learning experiences and the intended pedagogical design was to build students' constructions of knowledge on the way design elements have been used in different cultural contexts and mass media texts. Teacher B wanted students to be consumers of available designs as they were led through a process of consuming the designs of meaning in texts as they related to key terms such as 'representation', 'symbolism', 'stereotypes', 'connotation', 'versions of reality' 'attitudes, values and beliefs' in the Queensland Senior English Syllabus.

The excerpts from learning experiences below were reflective of the titles for learning activities 1–3 that Teacher B had documented in their Learning Element. This first episode found Teacher B standing on the raised platform and students sitting in rows of desks facing the front. Early in the lesson, Teacher B was using the whiteboard to write down key terms from the English Syllabus. Students had to recall knowledge from a previous lesson in order to answer the questions about representations, intentions of producers of texts, and the meaning of the term 'texts'. The metalanguage used for analysis of textual design was drawn from the predetermined tool box of formal Senior English terminology which Teacher B wanted students to learn.

Teacher B: And we said the problem with stereotyping was what? Right and what doesn't it allow for?

Student 1: Difference

Teacher B: Yes and it doesn't allow for individuality. Is it good to be an individual? Wouldn't it be good if everybody just looked the same? No? Why not?

Student 2: That would be stupid. It's the same with everyone having the same personality. If everyone thinks they're funny and they are all trying to be funny at the same time then they are all trying to be try hards.

Teacher B: Wouldn't it be easier? OK this is what we are going to look through today. You need to look at it because you've been through it once but, you've got to copy it down, but it is initially. [Addresses Student 3], we said

representations are textual constructions that shape the way we the readers, we don't always just read the text what else do we do?

Student 3: Listen to them.

Teacher B: Listen to them right. Think about people issues right? Texts, books, films signs, advertisements etc. construct the world view of the producer of the text. Let's have a look. We have the person who is producing it. Why do they produce it [addresses Student 4]? They are trying to tell the person who is there what? What are their intentions?

Student 4: Their message.

Teacher B: What message do they want to portray? (Answer not audible) Which ever message that they want all right? Remember when we were talking yesterday that senders and receivers can have different attitudes. Why are the two reasons that add to your representation attitudes and perceptions might be different?

Student 2: Gender.

Teacher B: Gender and also different?

Student 5: Cultures.

Teacher B: Different cultures, yes. OK so [addresses Student 6] we did this yesterday remember? What else? Read them out for me.

Student 6: Verbal, visual, auditory and gestural and movement, either alone or in combination.

Teacher B: OK they can be alone or in a combination. OK have a look at this. Texts are forms of communication that can be verbal, visual, auditory, digital, alone or in combination. How can they be versions of reality [addresses Student 18]? How can a picture be or an image, how can it be not real but a version of reality? What is it that someone who is making it trying to do? (Answer not audible)

Teacher B: Make us think the way they wanted you to think. Right, let's have a look at this. Texts are composed of different forms of language, the verbal, auditory, visual and digital. OK we've had a look at this, that's basically it. Which one of these isn't on the board? Those images we looked at reading still images which one?

Student 7: Language use.

Teacher B: Language use. Which other ones [addresses Student 8]?

Student 8: Audience.

Teacher B: Audience, yes. That audience can be combined with what? Your intent [addresses Student 2]?

Student 2: Body language.

Teacher B: Body language OK? Write down for me this. What is it?

(Photo of road sign warning of kangaroo)

Student 9: It's a sign.

Student 2: It's like a silhouette.

Teacher B: Of what? Of a kangaroo. Is it a symbol? What are the two?

Student 10: Words and image.

In this excerpt the data on Teacher B's pedagogy indicates a focus on recall and transmission of knowledge, basically drawing on only one knowledge process—experiential knowledge. Students appeared to be passive recipients of Teacher B's questions and explanations about the known and the new information in the study of popular culture texts. Almost all question stems started with 'what', which indicates Teacher B was looking for student recall of previously introduced knowledge. Interestingly, on quite a few occasions Teacher B answered the question and this could suggest haste to get through the content of the lesson. This interpretation is also substantiated by the direction that 'you need to look at it because we've been through it once but you've got to copy it down'.

Teacher B's use of formal terminology—'representations are textual constructions'; 'world view of the producer of the text'; 'senders and receivers have different intentions'; 'representations, attitudes and perceptions'; 'texts are forms of communication'; 'versions of reality'; 'composed of different forms of language'—are sophisticated references. The words and manner of delivery suggested the choice of experiential pedagogy, the known and the new. Even though Teacher B was 'naming' terminology associated with the study of texts, this segment of the learning experience could not count as conceptualising in terms of the *Learning by Design* pedagogical knowledge process because there was an absence of deep engagement of acting and meaning (Kalantzis & Cope, 2005) by students with this metalanguage. Furthermore, after extensively referring to this predetermined metalanguage in what seemed a lecture style transmission, Teacher B stated 'OK we've had a look at this and that's basically it'. This segment appeared to be an example of a skim across the surface of some fairly demanding discipline specific vocabulary that Teacher B wanted students to know.

Despite in-service training in the use of the *Learning by Design Guide*, opportunities for collaborative planning, and the completion of a Learning Element prior to teaching, the first three lessons looked as if they followed the pattern of a traditional classroom arrangement of teacher out the front with students listening and viewing passively. The construction of literacy in these lessons was about students passively viewing and reading different

multimodal texts to respond to Teacher B's explanation and questioning about stereotypes and representations in selected media texts. However, the fact that they were using texts that were related to students' everyday lives, such as the *Simpsons* and images in the Brisbane environment, supported their students' engagement in the lessons.

In another of the early lessons, the reinforcement of the concept of stereotyping was used to support students' metalanguage and meaning making of multimodal texts. For most of the time throughout the lesson students were either listening to Teacher B, answering teacher directed questions, individually writing facts in their exercise books, or skim reading a letter to the editor of a local newspaper. In the field notes detailing observations of the lesson, the researcher noted how Teacher B commenced a discussion about the previous day's work on the subject of stereotypes. The question was asked, 'What's a family? You were asked to look at some television families last night for homework', after which the teacher let the class know that today they would be looking at a family on television, *The Simpsons*, and that the episode would be 'The Simpsons in Australia'.

The video was played and every 5 minutes, Teacher B would stop the video and ask the class questions. Students were asked to name parts of families and their roles including, 'What are the stereotypes in the Simpson family?' They were also asked to name the features of Bart and Lisa's personalities and prompted with the question, 'Do you think the Simpsons are a typical family? Why? Why can't you stereotype people?' Students were then asked to write down how Australia was depicted in the show and the stereotypes that were evident. Between watching segments of *The Simpsons*, students were directed to list features of the show, the language and audio used to depict Australia, and the Simpson family itself. Referring to accents, the class was reminded that voice can stereotype people as well and reference was made to words that were used in the show such as 'mate', 'drongo', 'dingo eating your baby', and the music of *Waltzing Matilda*.

Once again this learning experience appeared heavily teacher directed, although the lesson was designed to help produce a metalanguage (as indicated in their knowledge objectives in their Learning Element) to describe how people are represented by the producers of multimodal texts for multimedia consumption. A metalanguage associated with stereotyping was explicitly detailed for students. It is evidence that Teacher B had thought about some explicit teaching related to multimodality. In addition, this constant focus on an analysis of stereotyping in *The Simpsons* could be interpreted as being clearly linked to one of the criteria of the assessment task in the Learning Element: 'You have accurately demonstrated

knowledge of the ways in which representations are constructed in texts'. However, the transformative, productive effort required for the production of multimodal texts (Kress, 2000b) was not evident in the way the knowledge was being developed for the students in Teacher B's lesson. The delivery of knowledge about multimodality seemed to be through the consumption of texts by listening to the teachers' voice rather than detailed, substantive discussion, collaborative group work and a generation of ideas associated with the conceptualising and analysing knowledge processes (Kalantzis & Cope, 2005).

To substantiate these interpretations two further data excerpts from field notes and audio tapes of lesson three are presented. The following observation is from the researcher's notes:

Teacher B's class of year 8 students was waiting outside the classroom, lining up with their teacher when I arrived. Teacher B was collecting notes and waiting for them to assemble quietly. I entered the room after students and sat on the opposite side up the front.

The classroom was organised with desks in rows of a 2, 3, 2 formation facing the whiteboard at the front. The data projector and laptop that sat on the raised teaching platform bench were switched on and ready to go.

There were 18 students five girls who sat in the back row and the rest were boys. Each student was told to get their exercise book out and rule up 4 pages while Teacher B was getting the PowerPoint slides ready. The students remained in their desks for the hour lesson.

This describes a lesson atmosphere in which students were observed as controlled consumers of texts. In the transcript below Teacher B can be seen to be using continual questioning to elicit students' knowledge of concepts related to representations in texts. This was another lecture style transmission of knowledge where the emphasis was on teaching the concepts through questions which centre on a recall of facts.

Teacher B: Let's go through what we went through yesterday. What did we say a stereotype was?

Student 11: or a generalised characteristic about a whole group without considering individual differences.

Teacher B: All of which means what?

Student 11: Ah, it's like a generalised thing about someone when you look at them.

Teacher B: What else is it? [addresses Student 1]?

Student 1: Ah, it's like a standardised ideal.

Teacher B: Right. All of which again means what? All the people in that group are basically? The same they are not what? Individuals. OK and then we went and looked at what symbols were used. What symbols are used in that?

(Problem with the PowerPoint presentation as chosen slide does not load. Another slide is selected instead)

Ok we'll have a look at this one. Anyway we shall keep going. We've had a look at the witch. What are the symbols on the witch? Yep?

Student 12: Black cat.

Teacher B: Black cat, Yep what else [addresses Student 9]?

Student 13: Um there was a wart on her nose.

Teacher B: Yes on the nose yeah.

Student 10: The animal.

Teacher B: What animal? What animal was it?

The data from this lesson now switches to field notes recorded further into the lesson. After the earlier computer problems, the PowerPoint slides are working and the segment picks up the teaching as the move is made to the second PowerPoint slide designed to teach representations in texts. This slide was titled: 'What are texts?' and the slide read: 'verbal, visual, auditory, digital and alone or in combination'. This was the prompt to elicit information from students about texts being versions of reality—not truth. The next slide had 4 photos of Brisbane on it. The photos were promotion shots of Brisbane—a long shot, taken from above, showing an ocean liner going under the Gateway Bridge; an expanse of water and green areas on the banks of the river; a picture of the river, with a 'City Cat'; and a dolphin jumping out of the water on Moreton Bay. Teacher B asked students to write down the elements of the photographs and how Brisbane has been represented in them.

On the whiteboard Teacher B wrote:

Representations

These may include:

- Location/background
- Colour used
- Type of shot low-high, front-back
- Movement/gestures
- Body language
- Language used
- Inclusion/exclusion
- Intention /values
- Beliefs/attitudes
- Audience

Students wrote what they saw in relation to the points on the whiteboard. After that Teacher B asked students just who was the audience intended for the photos, taking them through each photo and asking questions about the elements. There was a lot of teacher questioning at this stage, with Teacher B moving around the room, asking different students for their responses. The point was reiterated that representations are versions of reality. The data indicates that Teacher B's intention in this lesson was a replication focus more aligned to a genre approach—deconstruction of texts using a predetermined tool box of features geared to develop particular curriculum outcomes in English. The data also gave the impression that there was a certain prevalence surrounding the teacher's interests of maintaining order and getting through the curriculum agenda set by the school in these segments than there was surrounding the students' interests and learning needs in terms of their own production of their multimodal poster. It was difficult to sense any rich pedagogical variations of a transformative curriculum (Kalantzis & Cope, 2005) other than *experiencing the new* and *conceptualising by naming* points on the whiteboard as they occurred in the photos.

Finally, the episode below is representative of these early lessons and serves to make obvious the observed and recorded tone of the classroom and the learning.

Teacher B: Just have a quick look through these to refresh your memory because you've got a test on it before you get to sport today. Right, what's a stereotype [Addresses Student 2]? In your own words.

Student 2: I don't know.

Teacher B: Yes you do. What is a stereotype [addresses Student 6]?

Student 6: A stereotype is when people judge us as the same. They can't be individuals.

Teacher B: OK we don't allow them to be individuals. [Question directed to Student 14]?

Student 14: We make them do the same thing.

Teacher B: What did we say? Ok, we'll look at these as we go along. These are stereotypes. Remember we went through those. You had your turn to draw some and we went through and said how many of these indicators/signifiers what did we call them? What were they? What makes us recognise a stereotype? For instance, bald and shoes, and what do we call them?

Student 9: Symbols.

Teacher B: We call them symbols. There's a symbol there. What can a symbol be [addresses Student 15]?

Student 15: A symbol can be what.

Teacher B: (looking for a white board pen) I bet you I don't have a pen that writes. What's the bet?

Student 2: I bet \$20. Please work. Please work

Student 7: It works!

Teacher B: Ok, let's have a look here now. What can a symbol be?

Student 13: A football.

Teacher B: What's a football?

Student 5: A ball.

Teacher B: What else can it be [addresses Student 9]?

Student 9: A gesture.

Teacher B: Gesture. Yeah. What's the other one? (Can't hear response from student)

Teacher B: Right it can be can be an animal. What else?

Student 16: The background.

Student 2: Colour.

Teacher B: (to whole class): Have you got these written down somewhere? Anyway that's what we did. We talked about symbols.

There was evidence in the researcher's observations that Teacher B had spent significant time gathering teaching resources related to multimodality: making a PowerPoint presentation as a teaching aid; locating videos as a way of using popular culture; and drawing on the subject matter in Queensland Senior English Syllabus. However, the observations also implied that Teacher B didn't spend enough time designing the teaching and learning or pedagogical content knowledge (Darling Hammond, 1998; Kalantzis & Cope, 2005; Thompson & Zeuli, 1999). This revelation was not unexpected given Teacher B's original difficulty in the collaborative planning stage of using the *Learning by Design* ideas.

The huge task in anticipating the repertoire of literacy practices students would need for multimodal text production quite possibly had not been foreseen when the Learning Element was being planned—a point that resonates with and is reflective of Lankshear, Snyder and Green's (2000) claim about digital literacy teaching and learning. Their claim that incorporating meaningful digital literacy practices into the classroom 'represents a major challenge' has links to this case of multimodal literacy. The learning experiences were augmented by multimodal texts but the degree of challenge and higher order thinking in these lessons was quite low. Teacher B's expectation that all students would produce a multimodal poster and present an oral explanation of their design choices was quite high given the absence of pedagogy focusing on production techniques in these first three learning activities.

Teacher B's next observed lesson was conducted in the school's English block computer lab. The computer lab was situated on the first level which housed six classrooms, two being converted into computer labs and a staff room for the English staff. All Teacher B's Year 8 students entered the computer room, a normal sized classroom with 14 computers on tables placed around three walls with a whiteboard on the front wall closet to the door. There were four rows of tables in the middle of the room facing the whiteboard. Students were asked to share a computer in order to find a file on the desktop entitled, '8B's folder'. This housed the assessment task statement and, interestingly, it was the first time in the delivery of Teacher B's Learning Element that students were made aware of the assessment requirements. Students were asked to read the assessment task statement then commence organising the gathering of images, located either from the newspaper and magazines that Teacher B had supplied or from the internet.

It wasn't until students were able to start working on their own representations of themselves that high student engagement was observed. A shift in enthusiasm was emerging and the researcher began to see the students in new ways as group workers and knowledge seekers. A variation in pedagogical style emerged in this lesson because Teacher B's class was becoming more actively engaged in the production of a multimodal text.

This was a new style of teaching for Teacher B, in that secondary students were being allowed to complete their assessment task in class time. Several students explained to the researcher that such personal activity was an innovation, for this was not often the case with secondary students. In this lesson observation Teacher B had become a facilitator of students as they theorised about the concepts they wanted to use to represent themselves.

Teacher B: And read what you have to do for the assignment. Then Miss James (pseudonym) is going to work with us on Friday to help us put the stuff together. We are going to the art room on Friday and she will give you some more ideas on positioning on the sheet. It will be fantastic if she can do it because as an art teacher, she will be able to help you. But what we're finding. We are not doing it at home. We are doing it here, we are actually putting it together here but for you to get the information today and tomorrow and then we'll do it together on Friday. You need to go firstly in 3s and in pairs onto the computer go into 8D's folder. There's a pile there of transcripts in 2004. That's what you've got to read through.

The researcher reflected that students were very engaged in this activity in the computer lab, most took it seriously and were either busy gathering their images or discussing what they had found or helping someone else to find something. Students were theorising about what pictures and words would go on to their poster—whether they were using the web based images or images from magazines. The students on computers were saving images in their personal folders to print out in another room as the printer wasn't working in this lab. At the end of the lesson students all cleared up the mess left from newspaper and magazine clippings. Teacher B reminded them what they had to bring for tomorrow's lesson in order to progress their plans to make their poster on Friday.

After the observation Teacher B expressed dislike of new structure, saying that with so many students doing so many things, the lesson had been messy. This contrasted with the researcher's impression that the students had been very connected in their work and with each other and that no one had shown signs of misbehaviour. Rather, they had appeared to be taking the task very seriously. The richness of the lesson in terms of collaborative work and peer to peer substantive conversation was not represented as such in Teacher B's Learning Element which was titled 'We are Unique'.

Table 5.2 shows that the two knowledge processes Teacher B used to tag these activities were 'experiencing the known' and 'experiencing the new'. In fact, what Teacher B had actually set up for students in this lesson, although this was not recorded as such, was *Experiencing the Known* and *the New* and *Conceptualising with Theory*. When students were discussing how different concepts in the visual and linguistic texts could go together to represent them, they were undertaking knowledge processes more consistent with conceptualising than experiencing.

KNOWLEDGE PROCESSES (Teacher)	KNOWING THINGS (Student)
<i>Experiencing: The Known</i>	<i>By Being: In Your World</i>
Learning Activity 2: Personal information gathering <u>Task: 2.1</u> <ul style="list-style-type: none"> • Concept mapping of the areas of their life they wish to represent. • Heritage • Interests, e.g. music, sport • Films, TV programs • Books • Other 	Learning Activity 2: Personal information gathering. <u>Task: 2.1</u> What can you tell others of the real you? What areas of your life will be involved? What music will accompany this poster? Will you be recognised?

<i>Experiencing: The New</i>	<i>By Being: In New Worlds</i>
Learning Activity 3: I, myself, me. Task: 3.1 Display existing posters to enhance their knowledge of layout. Explain to students the reason for this poster – peer appreciation and recognition. Examining multimodal texts	Learning Activity 3: I, myself, me. Task: 3.1 How this is set this out? What is involved?

Table 5.2: Teacher B's Learning Element Pages

In Table 5.2 above the *Learning by Design* tool was used to show instances of varying pedagogy or knowledge processes but not in enough detail to show the depth of thinking about the teaching and learning that occurred in the lesson in the computer lab. At the beginning of that lesson Teacher B's statement that students would be helped by the Art teacher to 'put the stuff together' reveals that Teacher B was conscious of having no expertise at multimodal design but was also conscious of the need to expose students to production techniques. For these reasons students were not involved in framing the elements of design in their posters until an art teacher worked with them, accounting for the fact that the explicit teaching about this was not known when Teacher B had pre-planned the Learning Element.

This indicates that Teacher B sought out other teachers with expertise to help accomplish the aim to have students produce a multimodal text. Nevertheless, an omission of the art teacher's pedagogy in Teacher B's Learning Element after deployment indicate signs that this shift in pedagogical emphasis was an instance of a multimodal makeover. It was a documentation of student authorship of multimodal posters without the elaboration of the depth of knowledge about the social practice and the required repertoire of literacy practices. Based on this evidence, to tag this curriculum plan as an effective Multiliteracies Learning Element without demonstrating the depth of the grammar or the game and the angle (New London Group, 2000) that producers of posters draw on to create meaning would be misleading.

During the majority of observed learning experiences it was becoming increasingly clear that Teacher B's students were consumers not producers of designs. Despite the content of the Learning Element itself, the knowledge processes deployed in most observed learning opportunities were experiencing something known and new then applying the new knowledge. This is because Teacher B's students were observed as passive recipients of the sophisticated terminology associated with the textuality of the English discipline that Teacher

B delivered through transmission style experiential pedagogy. Additionally students were not insiders into the assessment task requirement until they went to the computer lab and this was only after Teacher B had covered the content in the first three learning experiences about representations in the mass media. This factor might account for some of the disappointment Teacher B raised at the project review when the outcome of their Learning Element was shared with the other teachers. One of Teacher B's biggest dilemmas about the project was that students did not use the teacher taught metalanguage to describe their poster designs.

An entry in the researcher's reflective journal, written after a visit to see the students' poster designs and after a conversation with Teacher B about the difficulty experienced in writing about the design choices they had made, reads:

The ability to use a multimodal metalanguage to justify use of available designs may be a long term, gradual process. It is quite possible that students have never had to use this language to discuss their text creations in the past. In this instance, students were focused more on cutting out images or drawing images and arranging them in a visually pleasing way rather than attending to formal talk about layout, colour choices, overlapping, focal point etc.

I asked one student to recall what the art teacher had told them about designing a poster/collage about themselves. He said she didn't say anything or that he wasn't listening, so when it was time to write about how he had represented himself, he found it hard and asked me for help.

Students were definitely engaged in the lesson when they were producing their posters. It will be interesting to further pursue the development of a metalanguage for multimodal text production—and how this gradually occurs and to what degree with a group of students.

This reflection led to another analysis of Teacher B's Learning Element, which showed that what was missing from Teacher B's conscious pedagogical planning as a whole was any direct reference to *Conceptualising with Theory*. Furthermore there were only two references in the whole Learning Element to *Conceptualising by Naming* (Table 5.3 below).

Conceptualising: By Naming (Teacher)	By Connecting: The Same Type of Thing (Student)
Activity 1.2	
What representations are being made and how? Texts will be deconstructed to examine: language, space colour, foregrounding, angles, clothes, gestures, point of view.	What elements do the producers of these texts use to create their desired effect? How were language, space colour, foregrounding, angles, clothes, gestures and point of view used?

Activity 3.1	
The concept of a multimodal text	How can you response be multimodal?

Table 5.3: Teacher B's Coverage of Conceptualising by Naming in their Learning Element

This analysis suggests that, in light of what happened with student learning above, the absence of any reference to *Conceptualising with Theory* and only two brief references to *Conceptualising by Naming* appeared to be the missing piece in Teacher B's conscious premeditated planning. Not present was the depth of conceptual knowledge for the discourse with which students needed familiarity in order to articulate the designs of meaning in their posters. The *Learning by Design* ideas claim conceptualising is where students are led into deeper learning and taken away from the familiar (experiencing the known) or at least the half familiar (experiencing the new) slowly and in a way that coherently takes the learner into a breadth and depth axis of teaching and learning concentrating on concepts needed to be understood to show transformation (Kalantzis & Cope, 2005). In this particular case, the absence of students' in-depth multimodal literacy metalanguage points to the need for teachers to document the conceptualising and analysing knowledge processes at a detailed micro level in order to anticipate how the specific production design concepts and purposes (the discourse of the social practices) will improve students' multimodal literacy.

Although Teacher B had finished the Learning Element before commencing the teaching phase, the amount of detail under the knowledge process in this Learning Element did not appear to be sufficient to foresee how the teaching and learning would unfold. This was because, in some instances, Teacher B had only written one question for students under a particular knowledge process, then listed another knowledge process straight away. This finding indicates that Teacher B's planning was hastily written using the knowledge processes, a situation consistent with Teacher B's struggle during the collaborative planning stage, and that a deeper knowledge of the ideas of *Learning by Design*, which would have been gained by dedicating more time to it, may have influenced teacher pedagogical decisions or pedagogical content knowledge at a deeper level than just 'tinkering' with the framework (Darling Hammond, 1998; Thompson and Zueli, 1999).

After the Learning Element had been deployed Teacher B said at the project review that it had been difficult to separate what to teach into single knowledge processes headings.

Researcher: Can I just ask one more question about the process of using the template? Tell me what that was like for you?

Teacher B: This? (laughter) That says it all. I must be really thick, I think. No actually I misunderstood it totally. Once I found out what I was supposed to do it was quite easy for me to do.

Researcher: How do you mean? What makes you think that you did?

Teacher B: No, I just got confused as I said it's probably me really, I didn't think enough. When I first put what I was going to do, what I was going to go through, I just presumed in writing it up, I kept asking myself, I knew I was wrong but I just presumed the first major task I would be doing would be experiencing and then the second one would be the next one and I kept thinking but within all of these I am doing everything that's there, so that confused me slightly. So that's me really. I couldn't quite work it out and...

Researcher: Maybe that is the case when something like this, there are aspects of these pedagogies or ways of doing things which are in each thing and it's hard to separate them out.

Teacher B: I ended up, you know, separating them out.

Researcher: But has that just become for the purposes of separating for the form or what was really happening in your practice and what you are doing?

Teacher B: Well that's what I would have been doing anyway I separated them out for the form which I had to do in the end but that's a bit confusing.

Researcher: When you say that it's what I would have been doing anyway.

Teacher B: Well I would have been going through most of these as I would have done in my teaching normally I would have started with what they know um and would have worked through that then introduce something new and then we would have looked at what the elements and concepts were so I think that really is what I do as well.

Researcher: In fact what you do is...

Teacher B: The framework tied it all up and I'm here to say that...

Here it is suggested in the data that the *Learning by Design* pedagogical knowledge processes were what Teacher B already does: 'well that's what I would have been doing anyway'. There was no reference in the data to the framework providing help to show gaps in previous practice. Despite having models and the guide, confusion had predominated: 'I didn't think enough'.

Based on the excerpt above there had been a shift in Teacher B's understanding of the power of premeditated pedagogical designs (Kalantzis & Cope, 2005), although this does not seem to have been evident. Even though Teacher B stated at the beginning of the project the desire 'to keep up with current theory', it appears throughout the data as well as in Teacher B's

actions and words, that the interpretation of a Multiliteracies approach did not require a change in teaching and learning. This is supported in the Learning Element documentation, where the production of a poster at the end was treated as the art teacher's business, therefore not included in any depth in the lesson plans.

Another important piece of data recorded at the final project review gives some understanding of the outcomes of Teacher B's work in the project. In this excerpt Teacher B expresses personal disappointment in the students' inability to use the metalanguage being taught to describe their multimodal design choices in their posters about their uniqueness.

That could largely have been a language thing too. (Sorting through the posters he was displaying and indicating one created by a girl in the class) So that's you know. We were to go on from there to look at um autobiographical writing and having these posters and stuff like that while she was explaining how the layout affects all of this yes she did in fact use this. The classes are not academic students but the really frustrating thing was that I knew that they understood it but they just couldn't give me the language when they presented the posters.

This data does not describe any reflection about why the students could not articulate a metalanguage at the end of the project other than because 'the classes are not academic students' and that 'it was a language thing'. Given the evidence above of the provision of excerpts of Teacher B's apparent surface treatment of sophisticated terminology to teach the metalanguage necessary for the students to use, it was an interesting observation that Teacher B did not outwardly question any of the pedagogical choices in the data source. However, Teacher B might have been alluding to some acknowledgement that perhaps teaching and learning choices could have been better selected when it was admitted to the group of teachers at the final project review that 'I learnt more about myself I think that I did about the students'.

5.3.3: Summary of Teacher B's Deployment of Learning by Design

In summary, the triangulation of data in Teacher B's deployment demonstrates that transformation from previous ways of planning curriculum with a supposed 'Multiliteracies' focus to those requiring a higher understanding of a Multiliteracies approach using the *Learning by Design* pedagogical framework will not necessarily occur in all instances. This is perhaps because the professional learning opportunities for Teacher B, and indeed other teachers who are equally keen to develop new skills, did not prove equal to the task. While it

was assumed that Teacher B would be guided by the *Learning by Design* Guide and district consultant during the collaborative planning stage, the extent to which this actually took place unfortunately proved to be minimal. The repertoire of literacy practices Teacher B's group of students needed in order to compile a multimodal text symbolically representing their worlds could have been more effectively taught via practices that are closer to those employed by expert graphic and visual artists. These were skills that Teacher B did not possess and they were skills that were actively sought, as was the case with Teacher A. The process of teaching the students design was missing in this Learning Element and with this the concentrated and deliberately intended pedagogical journey into the specific literacy practices Teacher B had expected to observe in the students' final products.

The data shows that the discourse of the social practice of producing a multimodal poster was never explicitly taught, or even learnt, by Teacher B and the class was assigned only one lesson from the art teacher at the point of production. What was revealed was that Teacher B's focus on the literacy practices in the deployment of the Learning Element gave more attention to the deconstruction of texts using a predetermined tool box of features geared to develop particular curriculum outcomes in English. This appeared consistent with a genre approach, however, many of the data episodes in this analysis seem to be more strongly connected to the teacher's interests of maintaining order and getting through the set English curriculum, a set of circumstances that could have been linked to the timetabling constraints of the secondary school context.

Teacher B's experience has revealed a number of issues for future *Learning by Design* professional learning projects. The first is the need for teachers to have deeply considered their interpretations of the pedagogical choices necessary to support multimodal literacy. The second is the need to use and become familiar with the discourses of the social practices in any planned multimodal text production. And the third is that a predetermined tool box of metalanguages will not necessarily be what is important to support a particular group of students during the multimodal design process. What is highly salient in Teacher B's case is that using the *Learning by Design* tool and ideas in a Multiliteracies instance requires the inclusion of specific and detailed teaching and learning related to the production of hybrid texts, not just the deconstruction of them.

5.4: Teacher C's Deployment of Multiliteracies Using the Learning By Design Framework

5.4.1: Pedagogical Choices

Teacher C's assignment, written to satisfy Master of Education course work, was a revealing source of data for this deployment stage and for the way the teaching and learning intentions for improvements in multimodal literacy were structured. In this assignment, the way the *Learning by Design* ideas were used to help to scaffold action in the middle years of schooling was discussed.

The structure of the Learning by Design framework is such that the problem is posed from the onset and the scaffolding of knowledge processes directs one to a solution. This particular Learning Element has a strong focus on active citizenship as the goal of the project is to enlighten community perception about humanitarian issues thereby transforming how people respond to such an issue on a daily basis. Critical and reflective thinking skills have been integral to this process... The journey into visual literacy took students on a journey into the unfamiliar away from their comfort zone. It was however through the explicit criteria that the learner knew the expectation, the direction to where they were destined, and the road to be taken. This is not however a single lifeworld destination. What they didn't know was the specific details of the things they would encounter along the way. What they did know was that it was important to venture into the unknown, and that such risk taking was both safe and to be encouraged...

Another pedagogical framework that is similar to the Learning by Design Framework is that of Bloom's Taxonomy. ...The similarity that exists between the two frameworks is the hierarchical dimension of the scaffolding. However, in the Learning by Design framework, the pedagogical sequence need not be maintained in a linear manner as it is both possible and desirable within this framework to move back and forth and jump across.

This data from Teacher C's assignment suggests that the theory and ideas in the *Learning by Design* professional learning project captured Teacher C's beliefs (Hawley and Valli 1999). Evidence of this can be seen in the extent that it enabled the structure of the Learning Element to be mapped out for deployment with a great depth of theoretical pedagogical knowledge. This was verification of the existence of a different type of learning experience in this study—one that only Teacher C could articulate. In contrast, substantial reference to the

theory and ideas of *Learning by Design* was not visible in the work of either Teachers A or B during the project. This finding suggests that a teacher's successful modification of personal practice using new theory and ideas will depend on how confident they are with the theory (Hawley and Valli, 1999) and how much of it they understand.

This next excerpt from Teacher C's assignment sums up the use of a growing expert knowledge of Multiliteracies and the *Learning by Design* framework to deploy an effective curriculum plan for students in the middle years.

I presented a portfolio of practice based on a multiliteracies Learning Element developed and deployed for a group of lower middle years students. I began by presenting a thematic statement based on my values and beliefs concerning the importance of addressing multiliteracies in the middle years. This was supported with reference to various Education Queensland documents, as well as leading researchers Mary Kalantzis and Bill Cope. I then presented my curriculum artifact in the form of a Learning Element based on the Learning by Design Framework and identified correlations between these and Education Queensland's Productive Pedagogies. Specific references were made to examples of students' work with anecdotal references to highlight the pedagogical practices and effectiveness of the deployment of the Learning by Design Framework.

This description of what was covered provides further evidence that Teacher C's professional knowledge of the *Learning by Design* ideas extended far beyond that of Teacher A and Teacher B as it linked to recent literature to personal 'values and beliefs' by relating why it was necessary to 'address multiliteracies in the middle years'. Teacher C was also able to correlate the *Learning by Design* approach to pedagogy to Productive Pedagogies, demonstrating a personal interpretation of pedagogical practices and assessing the effectiveness of the deployment of *Learning by Design*. This appeared as a confident summing up of what was done with the Multiliteracies and Middle Years Learning Element.

Teacher C's deployment of the *Learning by Design* approach suggested a personal paradigm shift in terms of applying new theory. However, in terms of emerging pedagogical practices in the deployment of the curriculum plan, the use of systemic reform documents such as *Literate Futures* (Luke & Freebody, 2000) and *Productive Pedagogies* (Queensland Government, 2001) means that the *Learning by Design Guide* (Kalantzis & Cope, 2004) cannot account alone for this changing understanding of pedagogy. There was something significantly more happening in Teacher C's professional learning than just the use of new

materials related to the pedagogy of Multiliteracies. It could be that Teacher C's commitment to a higher degree in education, the dedicated time and reflective practice involved in such a pursuit and not the materials alone, accounted for the description produced about the effective deployment of the *Learning by Design* approach to facilitate multimodal teaching and learning. Such an interpretation would be in agreement with Thompsons' and Zueli's (1999) claim that the provision of the 'what' of new materials (the frame) have a track record for being a flimsy means for changing pedagogy without the inclusion of quality professional development of the how (the tapestry).

5.4.2: Multiliteracies: Multimodality and Pedagogy

Emerging from the data on Teacher C's deployment of the Learning Element was that instances of the pedagogical choices in this Learning Element and the description of them in the assignment 'Teaching and Learning Strategies in the Middle Phase of Learning' matched what was drawn from the classroom experiences during the observation stage. The short excerpt below is from Teacher C's assignment and this is followed immediately by the transcription of an episode from the audio transcript of the relevant Teacher C lesson:

One of the activities where individuals were asked to call upon their lifeworlds to decipher the meaning behind an artwork—they were required to justify their interpretations by deconstructing the image to assess the varying qualities within the artwork that lead them to such an interpretation. Here the metalanguae development comes into play whereby students identify lines, shapes, colours and their varying qualities that impact on the viewer.

The transcript of Teacher C lesson shows how the learning process was facilitated:

Teacher C: OK this painting is called 'The Scream'. I want you to look this over for a minute and I want you to think of some words to describe how that picture makes you feel. So look at the picture, talk to your neighbour and then we'll write them on this board.

(Students discuss the painting)

Teacher C: All right now let's all focus up here again. You talked to your neighbour about how the picture made you feel and you're going to use describing words. What's the title for describing words?

Student 1: Adjectives

Teacher C: Adjectives. Ah, who else would like to give a word?

Student 2: Dark

Teacher C: Dark is something that you can actually see but you can actually feel dark. How do you feel dark?

Student 3: Freaked out

Teacher C: Freaked out.

Student 4: I don't exactly feel bad and I don't exactly feel good. In the middle.

Teacher C: In the middle. Who can help her with a word there?

Student 1: Different.

Teacher C: Different. Any other words? Yes?

Student 5: Jealous.

Teacher C: Jealous.

Student 5: Scared.

Teacher C: Scared.

Student 6: Frightening.

Teacher C: Frightening.

Student 7: Insane.

Teacher C: OK, One more.

Student 8: Sick.

Teacher C: Sick. Now all of these words are full of... No words are there about happy are they? They are more about the same sort of feeling. OK What made you all think of these words. What were the things in that picture that made you feel that way?

Student 3: Colours.

Teacher C: OK.. What else is in that picture that made you feel these words?

(There was distortion in the tape here)

Teacher C: The shape very good. The head is an odd shape isn't it? What also can you see in there that made you feel this way?

Student 7: The way he is screaming makes you feel he is unhappy.

Student 8: The background of the painting makes you feel (muffled)

Teacher C: So Swirling what? So colour, shape, lines very good love. Does anyone have anything more to add because we are going to finish up here?

Student 5: There's no car in the picture. He's just walking up the road.

Teacher C: Well what else could there be. He looks like he's walking up a highway.

Teacher C: Now [addresses Student 8] do you want to tell us what this picture is about seeing as you read it?

Student 8: Well it was about a long road and two friends and then he saw the sky turn bloody and he saw all these colours mixed around and stuff and he saw some type of and then the guy is some sort of alcoholic which means they have small faces.

Teacher C: It's not an alcoholic it's another word a fear of spaces.

Student 8: Agoraphobic.

Teacher C: Agoraphobia. This is a self portrait of an artist going outside it shows his face... and probably realising at the time that there.

Teacher C led this learning experience as planned, proceeding according to the Learning Element extract in Table 5.4 below. A range of knowledge processes were employed to take students from experiencing a painting that was new to them to drilling down deeper to conceptualise their feelings. Students were then guided to conceptualise what they could see (the beginnings of metalanguage development in this Learning Element) and to theorise how the design elements were used by the artist to make them feel certain emotions.

Knowledge Processes	Knowing Things
<i>Experiencing: The Known</i>	<i>By Being: In Your World</i>
Learning Activity 1: Introduction to Visual Literacy	Learning Activity 1: Introduction to Picture Talk
Refer back to Learning Activity 1 in 'Bringing Literature to Life: become a film producer' where the concept of representing ideas through a variety of different media was discussed. The class will explore the statement 'a picture paints a thousand words'.	Ideas can be represented through a variety of different media. Name some that you know of. Who has heard the saying 'a picture paints a thousand words' and what does it mean?
<i>Experiencing: The New</i> <i>Analysing: Functionally</i>	<i>By Being: In New Worlds</i> <i>By Thinking About: What Something Does</i>
Learning Activity 1.1: Using personal frames of reference to decipher the meaning behind an art work	Learning Activity 1.1: Reading a picture
Students will be introduced to the painting 'The Scream' by Norwegian artist Edvard Munch. The students will select adjectives to describe how the work makes them feel.	After looking at Munch's "The Scream", Use some adjectives to explain how it makes you feel.
<i>Conceptualising: By Naming</i>	<i>Things By Connecting: The Same Type of Thing</i>
Identifying the visual devices that leads one to interpret a work in a certain way: <ul style="list-style-type: none"> • line; colour; shape • imagery • Composition ie. focal point; placement; juxtaposition 	What variety of things is the picture made up of?
<i>Conceptualising: By Theorising</i> <i>And Analysing Critically</i>	<i>By Connecting: Different Types of</i> <i>By Thinking About Who Something is For</i>
Explore the possibility of the same art work created using: Different families of lines, shapes and colours An alternate image A change in composition	What do you think the artist was trying to communicate in his work? What are the visual cues that helped you to interpret it in this way?

Table 5.4: Extract from Teacher C's First Learning Activity in the Learning Element

In another lesson taught the next week, Teacher C modeled how to make marks on paper, giving supportive examples of what was wanted and choosing different approaches to support students' conceptualisation about how these could show feeling. Teacher C provided extensive modelling, and had all materials ready. This episode below starts again with Teacher C's description of the learning activity in the assignment, 'Teaching and Learning Strategies in the Middle Phase of Learning':

Learning Activity 2 once again acknowledges the lifeworlds of individuals through an expressive mark making activity but this activity also took them to new domains. Here students were to reflect on specific words based on an emotion or a sensation. They were then required to draw a line or mark that best expressed that emotion and to reinforce this quality through the selection of colours and art materials.

The researcher recorded the following observations about this lesson:

The art room was set up like the week before. High, white rectangular tables joined along the sides at one end to make a horse-shoe arrangement facing the front blackboard. Stools are lined up under the white tables for students to sit on.

Teacher C and 15 students from the local primary school enter the room with 3 extra adults, the teacher from the primary school, a parent and the researcher. Once students had settled, Teacher C reminded students of the work they did last week on reading images and asked them who the artist was they had studied.

Once again they were shown the picture of 'The Scream' and asked if they could remember the clue was to help them understand what was going on in the image. This was when students were asked to explain what an artist's brief was. Teacher C reminded them that they had been given a brief last week and asked them what that brief was.

The guidelines of the brief were talked about—the brief was made up of guidelines. One of these was colour to determine feelings.

Students had homework to show their monster they drew last week

Teacher C spent time pointing out features of students drawings that may have contributed to meaning making. The aim was to look for clues to tell what type of character it was. This related to students multimodal pictures (drawing and words).

Next Teacher C asked students to walk around the room to see other students drawings displayed on the white tables where they were sitting. They had to determine what personality the monsters had—for instance hungry or scary by looking at the visual clues. Students walked around the room smiling at pictures and making comments. Students then were asked to answer one by one what the character of the monster was and how they knew that.

After this discussion Teacher C introduced the topic for the learning experience by saying that they would be making marks on paper to communicate a word. This was a drawing activity but not with actual pictures.

Teacher C gave students some words ‘dying, sleepy, happy, excited, hungry, and angry, confused’ and they had to choose a mark to convey that word. They were given an example of dying and asked what colour they would associate with death.

Teacher C then asked how people would feel if this was happening to them in their real lives, continuing to provide a great deal of modelled examples on the board before students actually started to communicate meaning through their own mark making. They were asked to think about the tool they would choose—crayon or pencil.

Teacher C also prompted students constantly about choice of colour, reminding them that different cultures look at colour to symbolize things differently and kept bringing the class back to the idea that tools are used to communicate meaning.

Throughout the observation Teacher C helped students to theorise about how marks on a piece of paper go together to show the words ‘dying’, ‘sleepy’, ‘happy’, ‘excited’, ‘hungry’, ‘angry’, and ‘confused’. The impression that Teacher C really understood the knowledge processes of experiencing and conceptualising was strong because the depth of explanation and the way the students’ prior experience was drawn upon was evident in the teaching.

In this instance it appeared that Teacher C was very aware of what the students were supposed to achieve and had the technical language in place through concept naming, as well as demonstrating confidence that the students knew exactly what they had to do. Teacher C put the students to the test by asking them to trial the concepts of feelings as marks on paper and asked them to ‘theorise’ why these marks and colours go together to communicate the words written on the board: ‘sleepy’, ‘happy’, ‘excited’, ‘hungry’, ‘angry’, ‘confused’. This enactment of the Learning Element and of the descriptions in the assignment ‘Teaching and

Learning Strategies in the Middle Phase of Learning' provided a triangulation of confirmations about how the *Learning by Design* approach facilitated the intended multimodal literacy teaching and learning.

This next excerpt has been chosen to indicate the depth of knowledge Teacher C offered to support students to carefully consider the design elements of their collage. First, Teacher C's exposition in the assignment mentioned above demonstrates a reference to the discourse of the social practice and how it is also found in other subject areas. In addition Teacher C is able to express how students, through involvement in previous learning experiences that have involved all four knowledge processes, are able to use that knowledge to plan the design of their final collage.

This is the intellectual quality involved in planning their final collage. It is the bringing together of each of the domains of knowledge processes outlined in the learning by design framework. This approach to problem solving involves the use of thumbnail sketches and written annotations. This approach which is readily seen in science and art may be transferred to many project or subjects they may encounter from now on.

The field notes, transcript and student work sample in Figure 5.1 and 5.2 from the fifth observation of Teacher C's Learning Element follow this slice of data from Teacher C's assignment. The aim is to establish the rich work that occurred when Teacher C 'brought all the knowledge together' at this crucial stage of the Learning Element.

Students in groups have brought magazine clippings of photos that reflect their humanitarian issue. They are discussing the design of their collage and how these photos will fit into that collage. Prior to that Teacher C had given them a photocopied handout of a drawing to show alcoholism, using a focal point to draw the viewer's eye to it. Students were asked to discuss the clippings they brought in today and design their poster in their black journals after discussing which photos would best represent their humanitarian issue.

Teacher C is wandering from group to group discussing the choices students are making about their collage.

One group is a group of four girls who are designing a collage poster to reflect the humanitarian issue of helping others. On their white square art table they have magazine clippings of children in Africa. Some photos have been cut out; others remain on the page in the magazine. The girls are discussing the message

they want their collage to convey. They look at all the photos: one of an African boy standing next to a blackboard; others of African children working in some vegetable fields; one of an African woman with a tray of wheat to grind; another of an African man standing in a room in front of a window, facing the camera behind a low wooden chair with a caption in large white capital letters 'survivor'.

They discuss the photos one by one. The photo of a boy in the classroom in Africa is discussed as a possible representation of helping others as one girl said 'He can afford to go to school. Someone could have sponsored him to go because (picks up another photo of students in the vegetable field) I don't think these children go to school.'

Another group was arranging pictures for a collage about tolerance. They had a large black and white picture of a man's face placed on the white table. Various scraps from magazines were scattered across the table. The picture of the man's face had his hand covering his face and replacing his left eye, the group had positioned a circular colour picture of many people's faces from varying races. This photo immediately stood out as their focal point.

After going from group to group discussing the messages that they wanted to get across in their collage Teacher C brought all groups to attention to talk to the whole class, discussing what each group has been trying to do:

Teacher C: Now you must have a focal point. We've talked about that. To put the other pictures on the page you must include overlap. What does overlap mean? Yes?

Teacher C: Ok so they are overlapping to do what?

Student 1: One picture on top of another.

Teacher C: Good. One picture on top of another. This page is overlapping this page. Artwork that is overlapping rather than sitting side by side. If we just put lots of pictures side by side it ends up being a scrap book effect but when we use overlap it brings all the pictures together, it unifies them. So what you need to do is put some little sketches in here, play around with the arrangements just like what you are doing here. Playing around with arrangements and when you feel well that was a pretty good idea document the arrangements, then muck it all up and try another arrangement.

(Students talk and discuss their arrangements)

Teacher C: So you might have background with cardboard markings. OK. So get the paint and the cardboard and scratch the words—pick out a few key words

(muffled student talk—they continue to discuss and arrange their designs)

Teacher C (talking to a group): Give me a very short sentence that sums that up. What else could come out of his head? Life's too short? Any of those slogans. You need to have a really catchy short little message that you are going to have coming out of his head. Oh tolerance isn't it? Did you say don't judge before your eyes. That fits beautifully. Now think of what colour you would use.

Teacher C: OK. Stop there. Stop work please. Yet again there has been some fantastic discussion going on. I've been very impressed about the way you can think about things in a number of different ways. If you apply what we've been learning over the last few weeks to make the decisions that you are making now because you are coming up with major possibilities. Why do you have to have major possibilities before choosing the last one? So I'm very impressed with what I've heard going on today. Next week is the last week. I hope the decisions that people told me just finalise you need to finalise those decisions about what you are going to do before next week.

The illustrations in Figure 5.4 and 5.5 below show the results of teacher C's pedagogy. Both illustrations capture students' creative application of the conceptual and analytical knowledge processes (Kalantzis & Cope, 2005) in Teacher C's pedagogical designs. The use of concepts such as focal point; overlap to bring pictures together in unity; background effect; the analysis of functions and interests (Kalantzis & Cope, 2005) in the carriage of a theme in the slogan—a very short sentence or phrase that sums up the visual message; and the use of colour and line are evident in one group's diagrammatic plan for 'Others are Waiting', a work built around the theme of poverty in Africa and shown in Figure 5.4, as well as in another group's completed collage, shown in Figure 5.5, which exemplifies the theme of tolerance.

The classroom lesson description, audio tape transcript and student work samples shown below are evidence that students had expert guidance through the technical aspects and metalanguage of an artist's discourse. This expert leadership in the classroom was clearly focused on production-instructive pedagogy. Teacher C's words 'focal point', 'overlapping', 'document the arrangements', 'catchy short little message', and 'think of what colour you would use' are prompts to help the depth of knowledge to surface or the 'game and the angle' in the students' designs (New London Group, 2000). This compares to the way an expert film maker was able to support Teacher A's students to bring all their knowledge together at their film production stage and highlights the problem created by Teacher B's minimal knowledge of the multimodal grammatical demands of creating collage and film (Kress, 2000a).

Figure 5.4: Student Work Sample, Design of Collage

Figure 5.5: Student Work Sample, Finished Collage, 'Don't Judge Before your eyes'.

Teacher C gives a description in the assignment of the work sample in Illustration 5.2 above:

...one of the final outcomes produced by a group of students at the end of the 5th lesson. Here the students have brought together their perceptions of humanitarianism from their personal understandings but have further enriched their understanding by working through the scaffolding in the Learning Element. The outcome is quite sophisticated for a year 4/5 level. The students were working towards an artists' brief. They were to apply some of the metalanguage of visual literacy such as focal point, overlap, foreground and the like as well as the expressive mark making qualities of line, colour, shape and the materials to make the collage.

Teacher C claims the students who produced this multimodal collage did this through 'working towards an artists' brief' and had 'enriched' knowledge about Humanitarianism, conceptual knowledge of the specific metalanguage of artists, 'foreground, overlap, focal point' and of the technicalities of mark making 'line, colour, shape'. The evidence is proof that students were transformed as a result of Teacher C's visual arts expertise and the broad use of the knowledge processes through the pedagogical choices in the Learning Element.

5.4.3: Summary of Teacher C's Deployment of Learning by Design

In Teacher C's case the potential of the *Learning by Design* ideas are evident. The Learning Element and observations of its subsequent deployment captured Teacher C's ability to organise authentic and, from an artist's discourse, intellectually challenging learning experiences that led to learner transformation. Teacher C's documentation, both in the Learning Element and the written M.Ed assignment, demonstrated how this group of students belonged to the curriculum. Furthermore, through careful premeditated production-instructive pedagogical choices, Teacher C was also able to document how these students were transformed by the teaching and learning designs (Kalantzis & Cope, 2005). What Teacher C has shown is an important finding in terms of the ways the *Learning by Design* approach to pedagogy can exemplify and facilitate multimodal literacy. This is evidence of the 'effective how' for other Queensland teachers who might otherwise deploy multimodal makeovers in the name of Multiliteracies.

5.5: Cross Case Analysis

A cross case analysis of the findings of the Teaching and Learning stage is presented below.

5.5.1: Potential of Learning by Design Curriculum Planning Tool

The potential of the *Learning by Design* curriculum planning tool is displayed in Table 5.5:

Teacher	Personal Time Investment in Professional Learning	How L by D pedagogy facilitated multimodal literacy	Strengths of L by D materials to facilitate multimodal literacy	Weaknesses of L by D materials to facilitate multimodal literacy
Teacher A	<p>Extensive time devoted to learning about field specific literacies of documentary film making.</p> <p>Time devoted to using the curriculum planning tool to document teaching after deployment.</p> <p>No evidence of time spent using the Learning by Design Guide.</p>	<p>Facilitated the conscious documentation of the pedagogical variations for the discourse of film production.</p> <p>Facilitated a broad range of pedagogical variations and rich dialogue.</p> <p>Intellectual work of students increased</p> <p>No traces of previous language based framework in planning.</p>	<p>Can be used reflectively to document rich learning post teaching phase.</p>	<p>Required a good understanding of the discourse of social practice in producing particular multimodal text/s prescribed in Learning Element.</p> <p>Needed to spend more dedicated time understanding the knowledge processes.</p>
Teacher B	<p>Moderate amount of time spent filling out template sequentially then refining this to show variations of pedagogy in separate learning experiences and across the Learning Element.</p> <p>Teaching and Learning descriptions were brief throughout the Learning Element.</p>	<p>Didn't facilitate—documentation too scant and not enough depth of the conceptual and analytical knowledge of the expected discourse evident in teaching and learning.</p> <p>Language based practices were still evident. Overly focused on consumption and critique of popular culture texts.</p>	<p>Helped Teacher B 'tighten up' his planning practices.</p>	<p>Required a great deal of support. Professional learning requirements were high because of the intersection of multimodality and use of L by D planning tool requirements.</p>
Teacher C	<p>Spent dedicated time studying the L by D Guide, writing the Learning Element and writing an assignment justifying curriculum plans in the context of middle schooling, pedagogy student engagement and learning.</p>	<p>Facilitated the documentation of a Learning Element about creating a multimodal collage.</p> <p>Pedagogy was broad and enabled students to produce sophisticated texts.</p>	<p>It is possible and not onerous to capture rich pedagogy when teachers commit to higher intellectual engagement about learning the new terminology and the discourse of the social practice if not already known.</p>	<p>No weaknesses were recorded.</p>

Table 5.5: Potential of Learning by Design Curriculum Planning Tool and Strengths and Weaknesses

It can be seen in Table 5.5 above that the *Learning by Design* pedagogical curriculum planning tool demonstrated the capacity to capture the tacit knowledge of experts in the effective examples of Multiliteracies pedagogy and multimodal learning in the cases of Teacher A's film production and Teacher C's collage production Learning Elements.

The strengths of the tool's potential resided firstly in its versatility. In this study the template proved to be able to be used as a curriculum-planning tool to prompt and document appropriate pedagogical choices for Teacher C's previously unrecorded professional knowledge (this point is related to the previous curriculum planning artifact) about multimodal literacy teaching and learning within the Visual Arts. In contrast to Teacher C, Teacher A's use of the tool after deployment proved that it could also be used as an heuristic to document the teaching and learning central to the documentary film production as a reflective practice (Burrows, 2005a, 2005b; Cloonan, 2005; Kalantzis & Cope, 2005; Neville, 2005). In Teacher B's case the tool's strength was its ability to help 'tighten up' existing teaching practices.

The second strength to emerge out of the findings related to the potential of the tool to facilitate a broad range of pedagogical variations and rich dialogue for teachers and students surrounding the production of sophisticated multimodal texts. In the cases of Teacher A and Teacher C, the depth of pedagogical variations were reported by each teacher to have supported the convergence of previously disparate literacy teaching practices (visual literacy and critical literacy) into a more 'purposeful intent' in the form of collaboratively produced, intellectually rigorous multimodal texts.

However, the findings also suggest that there were weaknesses in the tool's potential to facilitate pedagogy because to document rich teaching and learning for multimodal literacy and improved student Multiliteracies outcomes teachers required a great deal of cutting edge professional knowledge. The professional learning requirements were high because the intersection of multimodality and use of *Learning by Design* planning tool in the professional learning project was assuming a certain depth of knowledge that was not necessarily possessed.

In Teacher B's case the impact of the tool was negligible in supporting the documentation of Multiliteracies pedagogy and multimodal learning because the pedagogical insertions under the knowledge processes in this Learning Element were often too brief. Furthermore, the

conceptual and analytical knowledge about the production of a multimodal poster was dealt with at surface level without meaning and form.

Although the *Learning by Design* Microsoft Word template planning tool does not prescribe a minimum length of documentation under each knowledge process prompt and does not suggest the depth of field specific knowledge or literacy practices that should be elaborated on under each knowledge process, it was assumed from the first professional learning day that teachers in this investigation would use the *Learning by Design Guide* to provide the details about Multiliteracies pedagogical documentation.

In Teacher C's case the guide was used extensively in the academic assignment and no weaknesses in the use of the tool were recorded in the collaborative planning stage or at project review. Teacher C demonstrated that documentation of pedagogy on the Learning Element template was possible and not onerous because a great deal of dedicated time was spent studying it. Where there were recorded weaknesses in the use of the tool, as in Teacher A and Teacher B's cases, it was directly related to their lack of use of the *Learning by Design Guide*. As a consequence Teacher A and Teacher B required extensive support from the researcher to understand the curriculum planning tool and the pedagogical approach. The findings support the idea that first time users of the *Learning by Design* approach to pedagogy within the Learning Element template need the elaborations of the *Learning by Design Guide* to support successful facilitation of multimodal literacy.

This last point steers the discussion to the findings on professional learning, in particular the dimensions of professional learning that were evident in the analysis of teachers' involvement in the project.

5.5.2: Dimensions of Professional Learning in Teaching Multimodal Literacy using the Learning by Design Approach

A display of the dimensions of teachers' professional learning, which can be seen in Table 5.6 below, serves to highlight the similarities and differences of teacher experiences with *Learning by Design* as an approach to facilitate multimodal literacy throughout the course of this project.

Professional Practice	Teacher A	Teacher B	Teacher C
Classroom Organisation	Created new production spaces for learning about multimodal literacy.	Formal 'desk work' classroom arrangement in all but one lesson.	Art room production furniture.
	Dedicated time devoted to film production.	Minimal dedicated time for multimodal text production.	Dedicated time devoted to collage production.
	Collaborative group work. New relationships with students –teacher as co learner.	Individual work.	Collaborative group work.
Repertoire of Literacy Practices—Plan of Multimodal Textual Design Cycle	A focus on textual production	A focus on contextualisation and textual critique.	A focus on textual production.
	Available Designs. Experiential knowledge about texts on Redfern Riots and documentary film making.	Available Designs Experiential knowledge about popular culture texts.	Available Designs Experiential knowledge about artists' use of artistic devices to portray meaning.
	Designing Predominantly production pedagogy Metalanguage of documentary film production. Theorising the multimodal design elements of documentary film production. Analysing the potential impact of film and choices about 'take home messages'.	Designing Predominantly consumption pedagogy Experiential knowledge about critical literacy metalanguage Theorising about how to combine images and text at a surface level. No inclusion of the specific and detailed teaching and learning related to production of a hybrid text.	Designing Predominantly production pedagogy Conceptual knowledge about artistic devices and metalanguage. Theorising about how to combine images, colour, lines, texture and print. Analysing functions and interests in collage production using a humanitarian theme.
	The Redesigned. Applying conceptual and analytical multimodal knowledge to newly designed film.	The Redesigned Applying mainly experiential knowledge to newly designed poster.	The Redesigned Applying deep conceptual and analytical knowledge to newly designed collage.
Impact on personal and student learning	Personal learning was reported to be high in terms of the meaning of Multiliteracies and combining aspects of literacy pedagogy which were previously disparate. Identified sophisticated intellectual student learning outcomes.	Learnt more about self than the students. Disappointed that student could not use a metalanguage to describe the design choices in their posters.	Captured in an M.Ed. assignment. Substantiated student learning through annotations of student work samples. Identified sophisticated multimodal literacy practices in the students' work. Substantiated professional learning through links to the theory and ideas of Learning by Design pedagogical choices in relation to Productive Pedagogies.
Understanding	Found Pedagogical tags	Difficulty understanding the	Understood the

of L by D theory and ideas.	were confusing. Difficulty understanding the meaning of the knowledge processes. Initial attempts were to list a sequence of activities then tag them later.	pedagogical choices. Attempted to sequence activities in a prescribed order.	knowledge processes. Did not require collaborative help to document the pedagogy on to the Learning Element
	No evidence of sustained use of the <i>Learning by Design Guide</i> . Required collaborative help to use knowledge processes. Increased understanding of multimodality and diversity.	No evidence of use of <i>Learning by Design Guide</i> . Collaborative help to document pedagogy on the Learning Element template.	Evidence of use of <i>Learning by Design Guide</i> in assignment.
Transfer of theory and ideas	Documented a record of the multimodal literacy learning after deployment.	Documentation in Learning Element was brief.	Wrote M.Ed assignment on professional practice using the Learning by Design approach.
	No traces of former language based 'genre' framework in final draft of Learning Element. L by D framework could document the appropriate pedagogical variations. Effective Multiliteracies approach.	Multimodal makeover – added multimodal texts to Learning Element without a detailed course of teaching and learning about the design elements needed to produce a multimodal poster.	Effective Multiliteracies approach.
	Discourse of social practice evident.	Discourse of the social practice was not evident.	
Magnitude of professional learning	Moderate/High Moderate professional learning about the pedagogical approach considering the high demands on professional learning about multimodality. High change in professional practice in terms of the meaning of Multiliteracies and representation of a transformative curriculum. Triangulated evidence of a transformative curriculum.	Low change in professional practice. Triangulated evidence that pedagogy was predominantly linked to progressive curriculum descriptions. Discourse of the social practice of producing the multimodal text remained implicit.	High change in professional curriculum planning practice. Triangulated evidence of a transformative curriculum

Table 5.6: Dimensions of Professional Learning in Teaching Multimodal Literacy using the Learning by Design Approach

Firstly, Table 5.6 above shows that one of the dimensions of the professional learning findings suggests that when teachers used existing expertise or acquired newfound expertise in multimodal text production, the way that teacher organised the classroom for learning was

also affected. Teacher C already had the creative production space for students to construct their multimodal collages within the art classroom. The furniture and resources for production were able to accommodate collaborative workspaces for intellectual engagement of multimodality to occur. This allowed dedicated time to be devoted to production learning activities. However, in the case of Teacher A, the impact of an expert film maker's master classes changed the classroom organisation into more open collaborative workspaces. Desks and the blackboard were discarded for open plan and circular meeting spaces where students could develop a new intellectual relationship with their teacher, who became a co-learner with them in the production of a documentary film. Thus the classroom space became a meeting place for a team of engaged apprentices learning from a master of filmmaking.

In the case of Teacher B, where neither teacher or students acquired any significant new expertise on the multimodality of poster production, the classroom organisation change was minimal. Teaching and learning arrangements, with students sitting in desks listening to Teacher B from the front of the room, remained mostly unchanged. The exception was in one learning activity when students went to the computer lab to find online resources for their posters. Interestingly, student engagement was higher in the lesson conducted in the computer lab than in any conducted in their usual traditionally arranged Year 8 classroom.

Secondly, Table 5.6 above shows that the impacts of the use of *Learning by Design* approach to pedagogy using the curriculum planning tool were highly successful in two cases. Both Teacher A and Teacher C's planning, teaching and professional learning experiences in the study had an impact on their own and their students' learning. In both cases the teachers reported students as having produced sophisticated multimodal texts with high intellectual engagement. The metalanguage, deep understanding and deep knowledge associated with Teacher A's students' production of a video documentary and Teacher C's students' multimodal collages, documented under conceptual and analytical knowledge processes, are consistent with the domain of Intellectual Quality within the Productive Pedagogies (Queensland Government, 2001a). This intellectual depth was also substantiated in audio taped lesson transcripts where the expertise of the discourse of the social practices (documentary filming and visual arts productions) was observed and recorded.

In Teacher B's case the *Learning by Design* approach to pedagogy using the curriculum planning tool did not have a marked impact on student learning. The metalanguage, deep knowledge and understanding about the particularities and technicalities of the production of the students' multimodal posters about their worlds was not evident in the Learning Element

or in observed and recorded lesson transcripts. What was evident was the missing gap between Teacher B's chosen pedagogical focus, which was mainly experiential knowledge determined by an analysis of the knowledge described in Teacher B's Learning Element to when students had to apply their knowledge. The pedagogy was generally devoted to the consumption of popular culture multimodal texts. Teacher B's reference to students, 'Well I've explained all this to you [a predetermined list of items to look for when viewing multimodal texts] and that's basically it', was followed by the expectation that students would transport this knowledge to the production of their posters. The missing link in these pedagogical choices was the mindful consideration about the discourse of producing multimodal posters and, with that, the metalanguage, deep knowledge and understanding that students needed to engage in these literacy practices.

Thoughtful depth of planning to bridge students' experiential knowledge to help them produce sophisticated multimodal texts under the conceptual and analytical knowledge processes did not occur in Teacher B's case. This finding supports the need for teachers to have the depth of understanding of multimodality and the knowledge processes if improved student multiliterate outcomes are to be realised by using the *Learning by Design* pedagogical approach. Although Teacher B claimed to have learnt more personally within the project than the students had obviously done, disappointment was expressed about learner performance in the final assessment of the work they had undertaken. Specifically, Teacher B stated that students were unable to use the metalanguage that had been taught to them to justify their multimodal designs in their oral presentations.

In Table 5.6 above a review of the repertoire of literacy practices students were engaged in throughout the Learning Elements indicates a marked difference in pedagogical choices between, on the one side, Teacher C's and Teacher A's strong emphasis on pedagogy for the production of multimodal texts (production-instructive pedagogy) and on the other side, Teacher B's strong emphasis on pedagogy for the consumption and critique of multimodal texts (consumption-instructive pedagogy). In all three cases the pedagogical emphases in the multimodal text design cycle determined the repertoire of literacy practices students engaged in. Multimodal text production-pedagogy incorporating field specific literacy expertise—or lack of it—within conceptual and analytical knowledge processes, accounts for some of the reasons why the intellectual depth was evident or absent in students' final products.

It is worth noting that evidence of student transformation in Multiliteracies in Queensland classrooms is often assessed within student production of multimodal texts. Therefore, based

on this research, expert production-instructive pedagogy should have pedagogical weight in Learning Elements designed for any planned student production of multimodal texts.

Table 5.5 above also displays the extent of the transfer of professional knowledge that occurred as a consequence of the professional learning project. A high transfer of professional learning knowledge from two teachers' previous planning approaches at entry level into this project was evident. Teacher A and Teacher C's curriculum planning using the *Learning by Design* approach uncovered some rich pedagogic documentation of effective Multiliteracies approaches which was previously unstated. The *Learning by Design* pedagogical approach proved it could deploy the pedagogical variations in the filming of a documentary video after Teacher A and the film maker had taught the Learning Element. Teacher A's Learning Element documentation also demonstrated a shift from a focus on genre based planning to a focus on the multimodality of the film's 'take home messages'. The *Learning by Design* pedagogical approach also recorded the ways in which Teacher C as an expert visual arts teacher employed rich knowledge variations in the Learning Element. The choices of pedagogical knowledge were specifically elaborated on in Teacher C's assignment, 'Teaching and Learning Strategies in the Middle Phase of Learning' and explicitly recorded in the Learning Element. This was a factor not included in previous visual arts curriculum documentation in Teacher C's school.

Teacher B's pedagogy in this study did not indicate a high transfer of professional knowledge. The Learning Element documentation did not have enough pedagogic detail and the Learning Element itself, along with Teacher B's deployment of it, was similar to that of a multimodal makeover. Multimodal textual practices were planned and taught mostly through the transmission of experiential knowledge, however students were not provided with time to practise an articulated discourse of the design elements needed to produce a multimodal poster.

Finally Table 5.5 above indicates that the magnitude of professional learning observed across the three cases ranged from low to high. High levels of professional learning supported by triangulated evidence of a transformative curriculum was identified in both Teacher A's and Teacher C's professional practice. Both teachers successfully connected with learners' dispositions and sensibilities but also were able to transform them to new states of knowing and enhanced performance (Kalantzis & Cope, 2005). Teacher A found the complexity of the project professional learning requirements a challenge because this meant having to learn about the multimodality of video film production and the *Learning by Design* pedagogical

approach and stretching professional learning between the two. The outcomes of this professional learning about *Learning by Design* are considered moderate due to the amount of support received to understand the Learning Element curriculum-planning tool. However Teacher A experienced a high change in professional practice in terms of the meaning of Multiliteracies and representation of a transformative curriculum. Teacher C's professional learning in this project was outwardly high and ease of use of the *Learning by Design* pedagogical approach and the ability to synthesise and apply that knowledge to an academic assignment demonstrated deep professional understanding and application of educational initiatives that were new to personal practice at entry level into the project.

Teacher C and Teacher A's extent of professional learning stands out against that of Teacher B. The low level of professional learning in terms of demonstration of new practices as a result of the project manifested itself in Teacher B's Learning Element, in the way in which it was deployed and in Teacher B's reported disappointment about student learning outcomes. The triangulated evidence of Teacher B's low level of professional learning indicated that professional practice in this project aligned more with the progressive curriculum routines documented in the previous curriculum planning than the new theories and ideas of *Learning by Design*.

5.6: Summary of Results

The main findings of the research will now be discussed with reference to the literature. The recurrent theme of professional learning has played an important role in determining the conditions under which the *Learning by Design* pedagogical approach did facilitate multimodal literacy and the conditions under which it didn't. While this investigation has shown the advantages of a collaborative professional learning project on *Learning by Design*, the project did not in all cases automatically set teachers up to successfully deploy Multiliteracies in their classrooms. What the project did have was a number of features that provided insight into the dimensions of professional learning for adopting new educational initiatives. These features emerged as a result of the analysis of the three teachers' engagement with Multiliteracies and *Learning by Design* and the outcomes of that engagement.

This study has supported Darling Hammond's (1998) suggestions for responsive professional learning policies. The project allowed a community of practice to flourish in regard to research and development between teachers and universities, teacher assessment of school

based pedagogical practices and peer reviews to support the reconceptualisation of old practices through feedback and evaluation.

Furthermore, considerable evidence in this discussion has suggested that the factors affecting the extent of professional learning about an effective classroom Multiliteracies approach are:

- the existence of a collaborative professional learning project involving a university, district personnel, outside experts and teachers;
- the use of project materials—specifically the Learning Element template and the *Learning by Design Guide*;
- the amount of personal time investment for professional learning;
- the level of multimodal literacy production expertise; and
- teacher interventions into their own professional learning.

These findings suggest that Education Queensland’s policy on pedagogical and literacy reform for a post industrial era have been addressed through the experience of teachers’ professional learning in this study. In other words this study has provided some clues as to how some of the Queensland State Education 2010 (Queensland Government, 1999) workforce reform hurdles can be minimised by considering the factors the research uncovered about what constituted quality professional learning for new initiatives such as Multiliteracies and Productive Pedagogies.

Conversely other evidence suggested instances when a teacher failed to grasp the *Learning by Design* pedagogical approach to transfer knowledge about Multiliteracies and Productive Pedagogies initiatives into classroom practice. Teacher professional learning indicators that failed to adequately support Education Queensland’s reform agenda in this project included lack of dedicated time to understand the principles and suggested practices of *Learning by Design*; lack of expertise in multimodal text production; and minimal personal interventions into professional learning.

The outcomes of this research demonstrate that consideration must be given to the extent to which two teachers made interventions into their own professional learning. Where the pedagogical framework and curriculum planning tool did seem to work in facilitating multimodal literacy, especially in Teacher C’s case, a high road transfer of theory and ideas was evident (Thompson & Zeuli, 1999). The transformative effect of personal professional learning was high because Teacher C had incentive to gain academic credit for the work in

this project. Where the pedagogical approach didn't work as successfully, as in Teacher B's case, a low road transfer of the theory and ideas occurred (Thompson & Zeuli, 1999). The limited dimensions of Teacher B's new professional learning and the minimal impact the use of *Learning by Design* had on student learning, understanding and transferred use during the students' engagement in a repertoire of literacy practices demonstrate the problem created by an insufficiently high level of time investment, commensurately reducing the 'cognitive dissonance to disturb' (Thompson & Zeuli, 1999) existing practice.

This finding related to Teacher B's project experiences supports similar findings on absence of pedagogical change to accommodate Multiliteracies in a select group of New Basics trial schools (Prestige, 2005). It appears in both sets of research that Multiliteracies pedagogy cannot be successfully orchestrated by simply broadening the type of multimodal texts used in learning experiences. In this research the intellectual depth of the students' multimodal texts was dependant on relevant expertise and quality teaching. Overall, the consequent magnitude of change in Teacher B's teaching practice was low. A serious commitment to study, firstly the discourse of the production of a multimodal poster and secondly the *Learning by Design Guide* and curriculum planning tool, did not occur. This low road transfer showed up as 'tinkering on the side' of the pedagogical approach: documenting a Learning Element and using multimodal texts in the classroom while maintaining many elements of the old paradigms of practice (Thompson & Zeuli, 1999).

In this project teachers had to rethink what constituted effective literacy practices. Those who had the most success in professional and student learning outcomes provided a great deal of instruction about the production of a multimodal text (Thesan, 2001). A pedagogical concentration on the 'how' of multimodal text production provided students with 'insider' knowledge. This pedagogical concentration had links to teachers knowing the discourse of the social practices surrounding the multimodality (Lankshear, Snyder & Green, 2000) and knowing which knowledge processes were likely to support students' access to the learning and which knowledge processes were likely to support the intellectual depth of students' learning and subsequent transformation (Kalantzis & Cope, 2005).

Considerable evidence in this discussion has suggested that two of the three teachers altered their practice in a significant way. Teacher C's and Teacher A's understanding about *Learning by Design* theories and practices and about their own professionalism to seek interventions into their own learning can be viewed as a case of intellectual renewal that came about through higher cognitive pursuits (Ball and Cohen, 1999; Darling Hammond,

1995; de Courcey Hinds, 2002; Thompson and Zeuli 1999). While the project provided Teacher C and Teacher A with access to expertise, ongoing district support and theoretical and practical materials their willingness to engage with new learning at a cognitively demanding level in their own time indicated that professional learning projects designed to support transfer of new initiatives into practice must be reinforced with continual intrinsic professional commitment.

During this investigation the teachers were actively encouraged to deploy state policy initiatives related to Multiliteracies through planning, teaching and reflecting on the use of the *Learning by Design* approach to pedagogy to support multimodal learning through students' production of multimodal texts. The findings reported in this chapter have illustrated the significant professional learning requirements (Darling Hammond, 1998; Thompson & Zeuli, 1999) that teachers had in using the *Learning by Design* theory and ideas. However, while this factor was evident the findings also demonstrated two teachers' perceptions of the rich outcomes that the *Learning by Design* approach to pedagogy provided for them and their students in this study. These productive outcomes were reported by teachers whose dedicated commitment to new learning allowed such practice to flourish. In essence the professional commitment by Teachers A and C to the design of curriculum using the *Learning by Design* theory and ideas provided encouraging perceptions of learner engagement and enhanced performance.

Chapter Six

Conclusion

6.1: Introduction

This study is part of an ongoing local and international research initiative about the deployment of Multiliteracies and *Learning by Design*. In this final chapter the thesis concludes with a review of the investigation. This is followed by a set of salient research propositions which are then incorporated into a description of the conditions when *Learning by Design* proved to engender an effective Multiliteracies approach. In light of the implications of these propositions and conditions, and taking into account the limitations of the research, the reader is offered several concluding recommendations in the form of steps and actions that suggest a practical way of maximising teacher professional learning and learner enhancement through the deployment of the *Learning by Design* framework.

6.2: Review

The key question of this study is ‘In what ways does the *Learning by Design* framework facilitate the pedagogy of Multiliteracies and multimodal learning?’ To answer this, the study has explored the ways the *Learning by Design* framework inducted teachers into the pedagogy of Multiliteracies and multimodal learning, delineating the specific acts of curriculum planning using the framework and assessing the delivery and success of such curriculum designs.

The aim of this research was to bring to light and systematically track the previously unrecorded ways in which teacher and student engaged with new designs for teaching and learning about Multiliteracies. Central to this was a focus on how teachers established pedagogical practices within the *Learning by Design* framework to support their students’ repertoire of multimodal literacy practices.

The research objectives were:

1. To find out about the pedagogical practices in the *Learning by Design* framework (planning, deployment and reflective stages) that teachers have chosen to support students' engagement in Multiliteracies.
2. To observe the repertoire of literacy practices that are selected by teachers for students to engage in and, in doing so, document and analyse the nature and scope of the literacy practices in the assessment tasks and the preferred modes of delivery of the students' applied knowledge.
3. To explore to what extent and in what pedagogical ways teachers have supported students' development of a metalanguage of Multiliteracies—multimodal expressions of meaning.
4. To document and analyse teachers' Learning by Design planning artifacts in relation to the amount of time devoted to and the extent of detailed instruction of the designs of meaning (multimodal literacy) in a given unit of work or lesson.
5. To find out the role of frameworks, specific curriculum and assessment design and theoretical models used by teachers to establish their pedagogical practice.

As this investigation of the *Learning by Design* approach to pedagogy was located within the context of a Queensland Multiliteracies professional learning project it required a review of a range of informing literature on three fronts. Firstly, a synthesis of relevant Queensland educational policy and theory on literacy and pedagogy from the period covering 1994–2005 was necessary in order to situate the teachers' professional learning environment. Secondly, an integration of recent international and local literature on teacher professional learning connected to new educational policy and research was employed to support the comparison and contrast of the research findings with current understandings about teacher inservice education. Finally, significant issues related to the unit of analysis were the pedagogy of Multiliteracies, multimodality and *Learning by Design*. The research concerns in this thesis were presented firstly with the context of the initial seminal work of the New London Group (1996, 2000) and then subsequent emerging theory and ideas from members of this group, in particular those of Kalantzis and Cope (2000-2005).

The case study methodology of this investigation was distinguished by its collective, exploration of the deployment of Multiliteracies embedded within the *Learning by Design* pedagogical approach. This case study approach allowed for a detailed consideration of the unit of analysis, and proved appropriate for the inductive analysis of themes and patterns that transcended the data. The collection of multiple sources of information supported the

triangulation of the data, which together with respondent verification strengthened the plausibility of the research.

6.3: Summary of Findings

The following five propositions, which have been confirmed by all three of the teacher participants, have been developed to explain the conclusions drawn as a result of the study.

Proposition 1: Depth and breadth of teacher expertise affects instruction/design, learner engagement and performance.

Proposition 2: The alignment of pedagogical choices to learning goals impacts on learner outcomes.

Proposition 3: Student diversity requires that teachers have and deploy a repertoire of pedagogical processes that align with learner needs and dispositions.

Proposition 4: The middle years of schooling are a critical transition period that require maximum flexibility to prepare learners to shift from the instructional/cultural learning environment of the primary school, to that of the high school.

Proposition 5: Effective professional learning requires sustained long-term, collaborative relationships between teachers, academics, consultants and education bureaucrats to produce genuinely, purposeful new knowledge and reflective practitioners.

Figure 6.1: An Effective Multiliteracies Approach

Figure 6.1, together with the research propositions listed above, illustrates the water marks left behind by Teacher A and Teacher C's successful facilitation of the pedagogy Multiliteracies and multimodal learning using the *Learning by Design* approach to pedagogy.

These indicators are highly suggestive of effective professional practice and make available the description of a compositional idea of the conditions that allowed successful multimodal literacy teaching and learning to reign during the project.

The research demonstrates the existence of five conditions necessary for the *Learning by Design* framework to be effective as an heuristic to enhance multimodal literacy outcomes:

- The existence of deep **field specific literacy** knowledge.
- The provision of **dedicated time** for professional learning and a willingness to engage with research breakthroughs and new knowledge
- The desire and facility to select from, and document explicitly, a broad **range of knowledge processes** and the degree to which pedagogical designs can shift from experiential learning to conceptual and analytical processes.
- The capacity to enable a ‘**production house**’ classroom environment.
- The orientation to a ‘**collaborative production**’ approach to designing learning and engaging learners.

Condition 1—Field Specific Literacies

Classroom observations, interviews, student work samples and curriculum artifacts demonstrated that the depth and breadth of teacher expertise in field specific literacy knowledge of the social practices of film production, artistic collage and graphic poster design affected the degree of effectiveness of the multimodal literacy curriculum design/instruction, learner engagement and performance. The extent of the teachers’ (or supporting expert’s) ability to articulate the metalanguage and guide the detailed production of a multimodal text was a key indicator in teacher reported improved student engagement and performance.

Arguably, it is this condition that is at the heart of the demands that multimodal texts place on teachers and learning environments. For example, in both Teacher A and Teacher C’s cases the intellectual quality of students’ multimodal texts were considered by their teachers to be evidence of highly sophisticated repertoires of film-producing and multimodal collage-producing practices. Furthermore, throughout the study, Teacher C consistently demonstrated a personal extensive understanding of the field specific literacies as a visual arts teacher while Teacher A secured the field specific literacy knowledge from an expert film maker.

In contrast this was not the case for Teacher B, whose inclination was to add multimodal textual design into the performance context without pedagogical elaboration of the associated

field specific literacies of graphic design. Consequently, this oversight was a contributing factor that led to Teacher B's subsequent disappointment about student engagement and multimodal learning.

Condition 2—Dedicated Time

When teachers first applied to join the *Learning by Design* project they claimed that it was an opportunity to pursue new professional learning on Multiliteracies. However, the amount of dedicated personal professional learning time teachers committed to understand and engage in new paradigms of practice became a significant determinant for the degree to which the *Learning by Design* framework facilitated the pedagogy of Multiliteracies and multimodal learning.

In Teacher C's case the commitment to allocate time to read extensively about the *Learning by Design* principles of learning and the pedagogical knowledge processes supported not only a successful Learning Element design but the assignment later written for a postgraduate degree. The outcome meant that through professional time commitment Teacher C understood the theory and ideas of *Learning by Design* sufficiently to relate it to the literature on middle years of schooling and the dimensions of Productive Pedagogies.

In a different sense Teacher A's case illuminated a personal time commitment to pursue greater depth of knowledge on the art of film making. This willingness to engage in new knowledge supported a deeper understanding and engagement with Multiliteracies. As a result of the contributing factor of dedicated time, the *Learning by Design* framework captured at a post teaching phase Teacher A's acquisition of an expert metalanguage which proved necessary for the students' intellectual performance.

Condition 3—The Range of Knowledge Processes

The concern about teachers' abilities to consciously select and document explicitly a broad range of knowledge processes was found to be central to the research question: In what ways does the *Learning by Design* framework facilitate the pedagogy Multiliteracies and multimodal learning? Clearly the desire and facility to do this, or the absence of this, is critical to *Learning by Design's* effectiveness in practice. Existing in both Teacher A's and Teacher C's Learning Elements, and more explicitly in their deployment of these as self-reported in Teacher C's assignment and Teacher A's project impact statement, are a broad range of pedagogical choices that explicitly supported student development of robust, sophisticated multimodal texts.

In this investigation all three teachers regularly and consistently deployed pedagogy that aligned with experiential knowledge. However, an important point relates to the successful transformation in student knowledge about multimodal literacy in the cases of both Teacher C and Teacher A. Student performance was enhanced by the detailed use of the particular knowledge processes of conceptualising by naming and theorising and analysing functions and interests. In both cases when students practised the metalanguage of the multimodality and learned the particularities and technicalities of text production it was supported with substantive conversations tagged under *conceptualising by naming and with theory and analysing functions and interests*. In addition these conversations were typically production-instructive. By contrast, dissimilarity in the data from Teacher B's experiences showed there to be noticeable production-instructive pedagogical gaps in the teaching and in the pedagogical documentation. Teacher B's Learning Element and the deployment of it was predominantly about multimodal textual critique within a generally limited range of *experiential and applied knowledge*.

Condition 4—'Production House'

Tension to create suitable classroom ecologies for learner outcomes in the context of multimodal literacy on the one hand, and the need to 'get through the curriculum, and maintain order' on the other hand, can detract teachers from the alignment of pedagogical choices to learning goals, thus impacting on learner outcomes. Yet in two middle schooling classes in this case study, those of Teacher A and Teacher C, the capacity to enable a 'production house' environment was a condition that fostered rich student engagement and learning for Multiliteracies. This type of environment included the existence of classroom relationships and spaces that allowed students to act in teams whose pursuits were to produce creative multimodal texts.

An illustration of this was the 'production house' atmosphere in Teacher A's upper primary school classroom. During observations, the tone of the classroom appeared as an authentic set for creative dialogue on film production and, quite visibly, the relationships between learners and teachers were more analogous to that of apprentices and experts. The 'team' would meet regularly to work on the production and were guided by the expert's knowledge while conceptualising and analysing the design of their texts. Further, Teacher A's project impact story substantiated the multimodal production-instructive pedagogical choices and their willingness to allow a 'production house' environment encompassing flexibility of timetabling, classroom spatial conditions and relationships.

Condition 5—Collaborative Production

Concerns with the development of rich metalanguage and enhanced multimodal learning to support the deployment of effective Multiliteracies approaches were part of the original reasons for undertaking this study. An orientation by Teacher A and Teacher C to design the learning and engage their students through a collaboratively produced video documentary and a group designed multimodal collage indicates they were consciously allowing the students in their classes to work together to make sense of the particularities and technicalities employed in their multimodal texts. This condition allowed the recording of rich dialogue and field specific metalanguages for an authentic purpose, specifically when students were *conceptualising with theory* and *analysing functions and interests*, as a group.

The information gained in this study offers new insights into three teachers' engagement with Multiliteracies. However, the limitations of this research rest in its case study characteristics. The study was bounded by a four month period of data collection and based on three teachers' classroom practice in three middle years. Therefore, it cannot be held to be representative of other teachers in Queensland. Furthermore the three teachers chosen for this study opted into the project and were eager to learn more about *Learning by Design* as an approach to deploying Multiliteracies. While the study captured the professional learning progress of this group of teachers, the sampling of the group is a noteworthy issue for any generalisation made about this research.

6.3: Recommendations

Following are some steps and actions that emerge from this study that suggest a way of maximising professional learning and learner performance outcomes using the 'ideas' of the Multiliteracies project and the 'frameworks' developed by the *Learning by Design* project.

6.3.1: First Step—Professional Knowledge

Action 1: Determine existing professional knowledge and learner knowledge about multimodality and diversity by:

- examining previous planning and comparing how it relates to the theory and principles of *Learning by Design*—that is, whether it is the same or different;
- exploring features of the *Learning by Design* framework and take into account prior learning, assessment, knowledge processes, and pathways;
- understanding the core aspects of Multiliteracies theory—that is, diversity, multimodality and pedagogy;

- understanding the difference between Multiliteracies and Information Communication Technologies (ICTs) and ICTs across the curriculum; and
- factoring in the learner's prior knowledge and the life world experience into the development of learning designs.

Action 2: Determine the ranges of professional knowledge about pedagogy and curriculum by:

- becoming familiar with the features of Learning by Design framework via the Learning by Design guide or other means;
- analysing the relationship of previous planning to the proposed planning as per Learning by Design framework—that is, cross walks;
- understanding the meaning and significance of the range of knowledge processes proposed in Learning by Design; and
- deciding upon the indicators that will be used to measure transformed practice for both teacher and learner.

6.3.2: Second Step—Choosing Pedagogical Design

Action 1: Build familiarity with the framework that will deploy Multiliteracies, i.e. the Learning Element of Learning by Design, making it possible to:

- align learning goals to pedagogic choices;
- determine the rhythm and purpose of pedagogical choices;
- adapt pedagogical choices to suit learner needs and learning goals;
- track the impact of pedagogical choices; and
- reflect on the effectiveness of pedagogical choices.

Action 2: Organise the classroom to facilitate the deployment of the framework and develop:

- an awareness of the way that learner subjectivity and sense of belonging may impact on time on task;
- an explicit engagement with the features and functions necessary to target the literacy goal;
- a focus on literacy production as well as deconstruction;
- a social practice in the classroom that has the capacity to produce a variety of literacy practices and an understanding of how they operate within a multimodal context;
- an environment that promotes collaborative learning to enhance higher order multimodal literacy production;

- a set of those classroom ecologies necessary to foster deep learning and enable creative and purposeful multimode meanings;
- an assessment of learner transformation in range, level and type of literacy production; and
- the design of learner pathways to ensure robust ongoing learner performance and transformation

6.4: Conclusion

This investigation, carried out in the second half of 2004, involved a multifaceted and comprehensive tracking of the deployment of the *Learning by Design* framework by three middle years' teachers whose aim upon entry to the project was to further enhance their professional knowledge and practice in regard to Multiliteracies. It is, at this time, the most recent and complete study of the complexity involved in the teacher-classroom-student conditions that come into play when middle schooling teachers, many of whom will be moving out of their personal comfort zone, make the attempt to progress towards a practical understanding of the application of Multiliteracies in the classroom by using the *Learning by Design* approach to pedagogy.

The study monitored three Multiliteracies classrooms using data that charted the project from several directions at once, fleshing out the ethnographic observations made by the researcher with data from the teachers themselves, allowing the project to be examined from their perspectives as well. The project followed the changing pedagogical practice of these teachers by comparing curriculum plans developed before entry to the project with the plans that were developed as they were introduced to the concepts used in the *Learning by Design* framework during the collaborative planning stage. During the final stage, when analysis was made of the practical experience of translating the framework into classroom practice, data was again collected across the range of perspectives as the teachers and the researcher considered the degrees to which the classroom practice aligned with theoretical insights and principles of *Learning by Design*.

The case study raised important considerations about pedagogy and the role played by professional learning in facilitating the introduction of Multiliteracies into the middle years' classroom. It was found that teaching multimodal literacy required an enormous mental leap for two of these participants; a leap that left these experienced classroom teachers visibly floundering during the collaborative planning stage as they tried to structure curriculum from an entirely different perspective. This highlights the need for the development of an in-depth

and wide-ranging approach to the issue of professional learning, for only those who could devote sufficient time to the study of the framework and the practicalities of multimodal literacy were able to successfully transform their classrooms. For those teachers who did make significant progress, the results in the classroom proved a revolutionary experience not only for them but also for their students; an experience that, in itself, generated the desire for further professional learning and the awareness that their teaching practice had been enormously changed as a result of their involvement in the research.

It is clear that the Learning by Design framework can be used to transform classroom practice. Even for that teacher who didn't make the mental leap to multimodal teaching, struggling instead with a 'multimodal makeover' that essentially left the bulk of teaching practice unchanged, the increase in the students' interest was visibly heightened at the time that the 'makeover' was introduced into the classroom. Certainly this teacher was receptive to the introduction of new ideas and expressed personal disappointment that these hadn't been mastered during the limited timeframe allowed in the research. This is an important finding. In the context of curriculum and pedagogical design this investigation has demonstrated that there is a need for an in depth consideration of the existing elements of teachers' professional learning experiences if the initiatives developed for reform in Queensland education are to become central to classroom practice. If Multiliteracies are to be successfully introduced into classrooms and multimodality deployed in teaching practice, the theory and principles of *Learning by Design* have the demonstrated capacity to equip both teachers and students with the contemporary multiliterate capabilities necessary to success in new social, cultural, technological and economic times. To do this, however, there must be greater emphasis on professional learning and more resources put into creating the groundwork for these new teaching initiatives.

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